DRAFT

West Campus Upper Plateau Project
Environmental Impact Report
State Clearinghouse No. 2021110304

Prepared for:

March Joint Powers Authority
14205 Meridian Parkway #140
Riverside, California 92518
Contact: Dan Fairbanks

Prepared by:

DUDEK
605 Third Street
Encinitas, California 92024
Contact: Nicole Cobleigh

JANUARY 2023

Printed on 30% post-consumer recycled material.

Table of Contents

Appendices

Figures

Tables

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ACC	Advanced Clean Cars
ACMs	asbestos-containing materials
AD	Abandoned Drainages
ADT	average daily trips
AERMOD	U.S. Environmental Protection Agency Regulatory Model
AFB	Air Force Base
AFY	acre-feet per year
AI	Action Item
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMSL	above mean sea level
ANSI	American National Standards Institute
APE	Area of Potential Effects
APN	Assessor's Parcel Number
APSA	Aboveground Petroleum Storage Act
APZ	Accident Potential Zone
AQMP	Air Quality Management Plan
ARB	Air Reserve Base
IPA	Inland Port Airport
AST	aboveground storage tank
ATP	Archaeological Testing Plan
BMPs	Best management practices
BO	Biological Opinion
BP	Business Park
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAIT	Climate Analysis Indicator Tool
CalARP	California Accidental Release Prevention Program
CalEPA	California Environmental Protection Agency
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CalOSHA	California Occupational Safety and Health Administration
CalSTA	California State Transportation Agency
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CBD	Center for Biological Diversity
CCR	California Code of Regulations
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act

Acronym/Abbreviation	Definition
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHP	California Highway Patrol
CH	chlorinated herbicide
CIP	capital improvement program
CIWMB	California Integrated Waste Management Board
CMUs	constructed of concrete masonry units
CNEL	community noise equivalent level
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CPEP	Clean Power and Electrification Pathway
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRMP	Cultural Resources Monitoring Plan
CRRC	Cool Roof Rating Council
CTC	California Transportation Commission
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DEH	Department of Environmental Health
DIF	development impact fee
DPM	Diesel particulate matter
EIC	Eastern Information Center
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Areas
ESL	Environmental Screening Level
EVA	emergency vehicle access
FAA	Federal Aviation Administration
FAR	floor area ratio
FE	Federally Endangered
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
FMZ	Fuel Modification Zone
FPP	Fire Protection Plan
FRAP	Fire and Resource Assessment Program
FRA	Federal Responsibility Area
FT	Federally Threatened
FTA	Federal Transit Administration

Acronym/Abbreviation	Definition
FTIP	Federal Transportation Improvement Plan
GCC	Global climate change
GHG	greenhouse gas
GWP	global warming potential
H_2S	Hydrogen sulfide
HAP	hazardous air pollutant
HBW	home-based work
HCD	Housing and Community Development
HCOC	Hydrologic Conditions of Concern
HERO	Human and Ecological Response Office
HERS	home energy rating system
HFC	hydrofluorocarbon
HFHSZ	High Fire Hazard Severity Zone
HI	hazard index
HMBP	Hazardous Materials Business Plan
HMIS	Hazardous Material Inventory Statements
HMMP	Habitat Mitigation and Monitoring Plan
HPS	High-Pressure
HPTP	Historic Properties Treatment Plan
HVAC	heating, ventilation, and air conditioning
I	Interstate
IEPR	Integrated Energy Policy Report
IP	Inland Port
IRP	Integrated Resource Planning
JPA	Joint Powers Authority
JPC	Joint Powers Commission
LBNL	Lawrence Berkeley National Laboratory
LBP	lead-based paint
LCFS	Low-Carbon Fuel Standard
LDT1	light-duty-trucks
LDT2	light-duty-trucks
LID	low-impact development
LLMD	Lighting and Maintenance District
LOS	level of service
LRA	Local Responsibility Area
LST	localized significance threshold
LUST	Leaking Underground Storage Tank
MDP	Master Drainage Plan
MEIR	maximally exposed individual receptor
MEISC	maximally exposed individual school child
MEIW	maximally exposed individual worker
MG	million gallon
MHDT	medium-heavy duty trucks
MLD	Most Likely Descendant
MM	Mitigation Measure
MMT	million metric tons
MPO	metropolitan planning organization

Acronym/Abbreviation	Definition
MRZ-3	Mineral Resource Zone 3
MS4	Municipal Separate Storm Sewer System
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric tons
MU	Mixed Use
MWELO	Model Water Efficient Landscape Ordinance
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NDCs	nationally determined contributions"
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OCP	organochlorine pesticide
OHWM	ordinary high water mark
OPR	Office of Planning and Research
P/R/OS	Park/Recreation/Open Space
PCB	Polychlorinated biphenyl
PDF	Project Design Feature
P-E	population to employment
PF	Public Facility
PFC	perfluorocarbon
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PPV	peak particle velocity
PRC	Public Resources Code
PUC	Public Utilities Code
PV	photovoltaic
QAWB	Qualified Airport Wildlife Biologist
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCHCA	Riverside County Habitat Conservation Agency
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RFD	Riverside Fire Department
RFS	Renewable Fuel Standard
RHNA	Regional Housing Needs Allocation
RMS	root mean square

Acronym/Abbreviation	Definition
RPS	Renewables Portfolio Standard
RSL	regional screening level
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAC	Strategic Air Command
SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SE	State Endangered
SED	socio-economic data
SEER	season energy efficiency ratio
SF	square feet
SF_6	sulfur hexafluoride
SGC	Strategic Growth Council
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Office
SHRC	State Historical Resources Commission
SLF	Sacred Lands File
SLPS	Short-Lived Climate Pollutant Strategy
SO_4	Sulfates
SPCC	spill prevention, control, and countermeasure
SRA	Source Receptor Area
SSC	Species of Special Concern
ST	State Threatened
STP	shovel test pit
SVOC	semi-volatile organic compound
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TA	Traffic Analysis
TAC	Toxic Air Contaminant
TAZ	traffic analysis zone
TCL	Traditional Cultural Landscape
TCP	Traditional Cultural Property
TCR	tribal cultural resource
TDM	Transportation Demand Management
TMDL	total maximum daily load
TPH	total petroleum hydrocarbons
TRU	trailer refrigeration unit
TSCA	Toxic Substances Control Act
TUMF	Transportation Uniform Mitigation Fee
TWA	time-weighted average
UBC	Uniform Building Code

Acronym/Abbreviation	Definition
UCR	University of California, Riverside
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
UXO	unexploded ordinance
VICS	Voluntary Interindustry Commerce Solutions
VMT	vehicle miles traveled
VOC	volatile organic compound
WEAP	Worker Environmental Awareness Program
WL	Watch List
WMWD	Western Municipal Water District
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WRCRWA	Western Riverside County Regional Wastewater Authority
WSA	Weapons Storage Area
WUI	Wildland Urban Interface
WWRF	Western Water Recycling Facility

1 Executive Summary

1.1 Introduction

This Environmental Impact Report (EIR) has been prepared by the March Joint Powers Authority (JPA) as lead agency pursuant to the California Environmental Quality Act (CEQA) Public Resources Code Section 21000 et seq., and the CEQA Guidelines (California Code of Regulations, Section 15000 et seq.). This EIR has been prepared to evaluate the environmental effects of the proposed West Campus Upper Plateau Project (Project). The purpose of this EIR is to focus the discussion on those potential effects on the environment of the Project that the lead agency has determined may be significant. In addition, feasible mitigation measures are recommended, when applicable, that could reduce significant environmental impacts or avoid significant environmental impacts.

The Project site is located within the March JPA planning area. More specifically, the Project site is located approximately 0.5 miles west of Interstate (I) 215 in the western portion of the March JPA planning area, west of Cactus Avenue's current terminus, to the east and southeast of the Mission Grove neighborhood, to the south of an existing County residential neighborhood and to the north of the Orangecrest neighborhood in the City of Riverside, California.

1.2 Document Organization

This EIR is organized as follows:

Chapter 1, Executive Summary, outlines the conclusions of the environmental analysis and provides a summary of the proposed Project and the Project alternatives analyzed in the EIR. This section also includes a table summarizing all environmental impacts identified in the EIR along with the associated mitigation measures proposed to reduce or avoid each impact.

Chapter 2, Introduction, serves as a forward to the EIR, introducing the Project, the applicable environmental review procedures, and the organization of the EIR.

Chapter 3, Project Description, provides a thorough description of the Project setting, objectives, characteristics, operation, and construction of the proposed Project and required discretionary approvals.

Chapter 4, Environmental Impact Analysis, describes the potential environmental impacts of the proposed Project, as well as proposed mitigation measures to reduce or avoid any potentially significant impacts. The discussion in Chapter 4 is organized into 18 environmental issue areas as follows:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

For each environmental issue area, the analysis and discussion are organized into the following subsections:

- Existing Conditions – This subsection provides information describing the existing setting on or surrounding the Project site that may be subject to change as a result of the implementation of the Project.
- Relevant Plans, Policies, and Ordinances – This subsection describes the laws, regulations, ordinances, plans, and policies applicable to the environmental issue area and the proposed Project.
- Project Design Features – Where applicable, features of the Project that are incorporated into the Project design that reduce or avoid potential environmental impacts are identified.
- Thresholds of Significance – This subsection identifies a set of thresholds by which the level of impact is determined.
- Impacts Analysis – This subsection provides a detailed analysis regarding the environmental effects of the proposed Project, and whether the impacts of the proposed Project would meet or exceed the thresholds of significance.
- Mitigation Measures – This subsection identifies potentially feasible mitigation measures that would avoid or substantially reduce significant adverse Project impacts.
- Level of Significance After Mitigation – This subsection discusses whether Project-related impacts would be reduced to below a level of significance with implementation of the mitigation measures identified in the EIR. If applicable, this subsection also identifies any residual significant and unavoidable adverse impacts of the proposed Project that would result even with implementation of any feasible mitigation measures.
- Cumulative Effects – This subsection includes an evaluation of the potential cumulative impacts of the proposed Project in combination with identified related projects.
- References Cited – This subsection includes a list of all references cited within the preceding discussion and analysis.

Chapter 5, Other CEQA Considerations, addresses impact areas determined to be less than significant through the Initial Study process, significant environmental effects that cannot be avoided, the significant irreversible environmental changes that would result from implementation of the proposed Project, and growth-inducing impacts associated with the proposed Project.

Chapter 6, Alternatives, discusses alternatives to the proposed Project, including a No Project Alternative. This chapter describes the rationale for selecting the range of alternatives discussed in the EIR and identifies the alternatives considered by March JPA that were rejected from further discussion as infeasible during the scoping process. Lastly, Chapter 6 includes a discussion of the environmental impacts of the alternatives that were carried forward for analysis and identifies the Environmentally Superior Alternative.

Chapter 7, List of Preparers, gives names and contact information of those responsible for writing this EIR.

Appendices include various technical studies prepared for the proposed Project, as listed in the Table of Contents.

1.3 Project Background

In 1993, the federal government, through the Defense Base Closure and Realignment Commission, mandated the realignment of March Air Force Base (AFB) and a substantial reduction in its military use. In April 1996, March AFB was redesignated as an Air Reserve Base (ARB). The decision to realign March AFB resulted in approximately 4,400 acres of property and facilities being declared surplus and available for disposal actions. To oversee the

dispensation and management of the surplus land, the Cities of Moreno Valley, Perris, and Riverside, and the County of Riverside formed the March JPA in 1993, which continues to serve as the reuse authority of March ARB.

In March 1997, March JPA assumed land use control for all surplus property identified and began preparation of a General Plan for the planning area. In 1999, March JPA approved the March JPA General Plan and Master EIR (State Clearinghouse No. 97071095) for the March JPA planning area, which includes March ARB. The General Plan now serves as the land use and development guidance document for development within the March JPA planning area.

The Project site has been analyzed under both CEQA and the National Environmental Policy Act in the following documents:

- March Air Force Base Master Reuse Plan, March JPA (October 2, 1996)
- Final Environmental Impact Statement: Disposal of Portions of March Air Force Base (February 1996)
- Final Environmental Impact Report for the March Air Force Base Redevelopment Project (June 1996)
- Redevelopment Plan for the March Air Force Base Redevelopment Project (July 1996)
- March Joint Powers Authority Development Code (July 1997)
- General Plan of the March Joint Powers Authority (September 1999)
- Master Environmental Impact Report for the General Plan of the March Joint Powers Authority (September 1999)
- Final Air Installations Compatible Use Zone Study, March Air Reserve Base (2018)

The Project site is designated as Business Park (BP), Industrial, and Park/Recreation/Open Space (P/R/OS) under the existing General Plan Land Use Map. Meridian Park West LLC is now pursuing development of the site with Specific Plan, Parks/Recreation/Open Space, and Public Facility General Plan land use designations.

On September 12, 2012, a Settlement Agreement was entered between and among the Center for Biological Diversity (CBD), the San Bernardino Valley Audubon Society, March JPA, and LNR Riverside LLC as the complete settlement of the claims and actions raised in *Center for Biological Diversity v. Jim Bartel, et al.* (Appendix S). The CBD Settlement Agreement contemplated the division of western acreage under the jurisdiction of the March JPA, including the Project site, into a conservation area, developable area, and a water quality/open space area. The CBD Settlement Agreement covers more acreage than is included in the Project site (Appendix S).

The analysis in this EIR addresses the following two components of the proposed Project: (1) the proposed build-out of the Specific Plan Area and (2) the establishment of the Conservation Easement pursuant to, and consistent with, the CBD Settlement Agreement (Appendix S).

1.4 Project Description

1.4.1 Project Overview

The following terminology is used throughout this EIR to discuss the Project, Project impacts, and impacts of various components of the Project:

- **Specific Plan Area** = Consists of the Upper Plateau Campus Development, Park, and Infrastructure Improvements.
    - **Campus Development** = Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three

Industrial parcels, two Public Facility parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan.

  - **Park** = Proposed Park component of the Project, consisting of 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground; multi-use sports fields that could be used for soccer, football, and field hockey; and trails with cardio stops for recreational users.
  - **Infrastructure Improvements** = Installation of utility and roadway networks connecting to and throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon reclaimed water tank.
- **Conservation Easement** = Approximately 445.43 acres of undisturbed land surrounding the Specific Plan Area, referred to as the Conservation Easement, would be placed under a conservation easement, consistent with prior determinations made as part of the CBD Settlement Agreement (Appendix S).

For analysis purposes in this EIR, the proposed Project consists of two components, pursuant to and consistent with the CBD Settlement Agreement (Appendix S): the Specific Plan Area and the Conservation Easement. Additionally, the existing Eastern Municipal Water District water tank located north of the Specific Plan Area would be assigned a General Plan land use designation of Public Facility; no physical changes to this water tank would occur. As such, the specifics for each Project component are shown in Table 1-1 and discussed below.

Table 1-1. Project Components

Land Use	Acreage
Specific Plan Area	
Business Park	65.32
Industrial	143.31
Mixed Use	42.22
Public Facility	2.84
Parks, Recreation, and Open Space	78.00
Streets	37.91
Subtotal	*369.60*
Conservation Easement	
Open Space	445.43
Subtotal	*445.43*
Existing Eastern Municipal Water District Water Tank	
Public Facility	2.87
Subtotal	*2.87*
Total Project Site	**817.90**

Source: See Figure 3-5, Site Plan.

Given the land uses planned for the Project area, as outlined in the Specific Plan, this Draft EIR assumes the following buildout of the Specific Plan Area for analysis throughout the EIR.

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use

- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facility – 2.84 acres for future sewer lift station and electrical substation (within the Specific Plan Area)

Based on the total acreage and land uses proposed, the Specific Plan Area is anticipated to result in approximately 2,600 employees at buildout[1] (see Draft EIR Section 4.12, Population and Housing, for more details).

1.4.2 Project Objectives

The proposed Project requests a General Plan Amendment, Specific Plan, Zoning Amendment, Tentative Tract Map, two Plot Plans, an Amendment to the Disposition and Development Agreement, and a Development Agreement to redevelop the former munitions bunkers of the March AFB. The primary objectives of the Project include the following:

- Provide increased job opportunities for local residents through the provision of employment-generating businesses.
- Provide open space amenities to serve the region.
- Provide an active park consistent with the 2009 Safety Study prepared by March JPA.
- Complete the buildout of the roadway infrastructure by extending Cactus Avenue to the Development Area from its existing terminus, extending Barton Street from Alessandro Boulevard to Grove Community Drive, and extending Brown Street from Alessandro Boulevard to Cactus Avenue.
- Remove and redevelop a majority of the former munitions storage area of the March AFB.
- Encourage the use of alternative modes of transportation through the provision of a pedestrian and bicycle circulation system that is safe, convenient, and comfortable.
- Implement the terms and conditions agreed upon in the September 12, 2012, Settlement Agreement entered into between and among the CBD, the San Bernardino Valley Audubon Society, March JPA, and LNR Riverside LLC, as the complete settlement of the claims and actions raised in *Center for Biological Diversity v. Jim Bartel, et al*. to preserve open space through establishing a Conservation Easement.

1.4.3 Project Design Features

The following Project Design Features (PDFs) have been incorporated into the Project and analysis throughout this EIR.

[1] Employment buildout is based on estimates provided in the Water Supply Assessment (Appendix O), which states the Specific Plan Area's projected water demand is 382.47 acre-feet per year. The Specific Plan Area's estimated indoor water demand is 124.33 acre-feet per year. This calculation is based on an estimated 60 gallons per employee, per day, and multiplied by 260 working days annually for 2,597 employees. This Draft EIR rounds up to a conservative estimate of 2,600 employees for the Specific Plan Area.

Aesthetics

PDF-AES-1 Development shall comply with the Specific Plan Design Standards which dictate building heights, setbacks, color pallets and materials intended to minimize visual obstructions and maximize visual compatibility.

PDF-AES-2 All exterior lighting shall minimize glare and "spill over" light onto public streets, adjacent properties, and Conservation Easement by using downward- directed lights and/or cutoff devises on outdoor lighting fixtures, including spotlights, floodlights, electrical reflectors, and other means of illumination for signs, structures, parking, loading, unloading, and similar areas. Where desired, illuminate trees and other landscape features by concealed uplight fixtures (on- and off-site).

PDF-AES-3 Limit light spillover or trespass to one-half foot-candle or less, measured at the property line for development adjacent to the Conservation Easement (off-site). This shall be confirmed through point-by-point photometric study.

PDF-AES-4 Limit light spillover or trespass to one-half foot-candle or less, measured from within five feet of any adjacent property line for development adjacent to nonresidential uses (on-site). This shall be confirmed through point-by-point photometric study.

PDF-AES-5 Lighting fixtures shall have a similar design, materials, fixture color, and light color. Use of LED lighting shall be required for parking lot lighting; parking lot lighting shall be within 100 Kelvin of 2700 Kelvin; other lighting techniques for accent lighting shall be allowed (on- and off-site).

PDF-AES-6 Lights shall be unbreakable plastic, recessed, or otherwise designed to reduce the problems associated with damage and replacement of fixtures (on- and off-site).

PDF-AES-7 Neon and similar types of lighting are prohibited in all areas with the Specific Plan Area (on-site).

PDF-AES-8 Locate all electrical meter pedestals and light switch/control equipment in areas with minimum public visibility or screen them with appropriate plan materials (on- and off-site).

PDF-AES-9 Illuminate parking lots, loading dock areas, pedestrian walkways, building entrances, and public sidewalks to the level necessary for building operation and security reasons. Dimmers and motion detectors are permitted (on-site).

PDF-AES-10 Along sidewalks and walkways, the use of low mounted fixtures (ground or bollard height), which reinforce the pedestrian-scaled, are encouraged (on-site).

PDF-AES-11 Use exterior lights to accent entrances, plazas, activity areas, and special features (on-site).

PDF-AES-12 High-Pressure (HPS) light fixtures are prohibited for site lighting (on-site).

PDF-AES-13 Lighting is prohibited that could be mistaken for airport lighting or that would create glare in the eyes of pilots of aircraft using the nearby March Air Reserve Base (on-site).

PDF-AES-14 All exterior on-site light fixtures shall be fully shielded with no light emitted above the horizon (on-site).

PDF-AES-15 Maximum on-site lighting wattage is 750 (on- and off-site).

PDF-AES-16 Maximum height of on-site exterior lighting for buildings is 25 feet; sports fields lighting may have a maximum height of 50 feet and shall be located no closer than 450 feet from residences (on-site).

Air Quality

PDF-AQ-1 Offroad equipment used during construction shall meet CARB Tier 4 Final emission standards or better.

PDF-AQ-2 **Construction Budget**. To ensure construction activities occur within the assumptions utilized in the Air Quality Impact Analysis (AQIA) (Appendix C-1) and disclosed in the EIR, the following shall be implemented:

- During each Phase of Project construction, the operating hours of construction equipment on site shall not exceed the assumptions set forth in Table 5-2 of the AQIA. In the event alternate equipment is required, the applicant shall provide documentation demonstrating equivalent or reduced emissions based on horsepower and hours of operation. The construction contractor shall submit a construction equipment hours log to the March JPA every 2 weeks to ensure compliance.
- During Phase 1, areas of active ground disturbance shall not exceed a maximum of 20 acres per day for Mass Grading and 20 acres per day for Blasting & Rock Handling. During Phase 2, the area of active ground disturbance shall not exceed a maximum of 20 acres per day for Remedial Grading. The construction contractor shall submit a grading log to the March JPA every two weeks documenting acreage graded or equivalent cubic yardage to ensure compliance. "Active disturbance" does not include moving of equipment from staging area(s) to grading areas.

PDF-AQ-3 **Future Site Plans**. All Specific Plan Area site plans shall include documentation confirming the site plan's environmental impacts do not exceed the impacts identified and disclosed in this EIR. Absent such documentation, additional environmental review shall be required.

PDF-AQ-4 **No Natural Gas Use**. Specific Plan Area development shall not utilize natural gas. In the event a future structure requires access to any available natural gas infrastructure, additional environmental review shall be required.

Cultural Resources

PDF-CUL-1 Two Weapons Storage Area igloos will be retained on the Project site. These igloos will remain visually accessible to the public and signage will be incorporated to share the historical nature and use of these facilities as part of the former March Air Force Base.

Greenhouse Gas Emissions

PDF-GHG-1 Conduit shall be installed in truck courts in logical locations that would allow for the future installation of charging stations for electric trucks, in anticipation of this technology becoming available.

Hazards and Hazardous Materials

PDF-HAZ-1 As required by the Riverside County Airport Land Use Compatibility Plan (ALUCP), as detailed plans become available, they will be reviewed for consistency with the Riverside County ALUCP. In addition, the following conditions as a result of ALUC Development Review (File No. ZAP1515MA22, Appendix L) shall apply:

- Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.
- A "Notice of Airport in Vicinity" shall be provided to all prospective purchasers and occupants of the property, and be recorded as a deed notice. A copy of this notice is attached to the conditions for ALUC Development Review (File No. ZAP1515MA22).
- The Project has been conditioned to utilized underground detention systems, which shall not contain surface water or attract wildlife. Any proposed stormwater basins or facilities shall be designed and maintained to provide for a maximum 48-hour detention period following the design storm and remain totally dry between rainfalls. Vegetation in and around the basins that would provide food or cover for birds would be incompatible with airport operations and shall not be utilized in Project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the basin(s) shall not include trees or shrubs that produce seeds, fruits, or berries.

  Landscaping in the detention basin, if not rip-rap, should be in accordance with the guidance provided in ALUC "LANDSCAPING NEAR AIRPORTS" brochure, and the "AIRPORTS, WILDLIFE AND STORMWATER MANAGEMENT" brochure available at RCALUC.ORG which list acceptable plants from Riverside County Landscaping Guide or other alternative landscaping as may be recommended by a qualified wildlife hazard biologist.

  A notice sign shall be permanently affixed to the stormwater basin with the following language: "There is an airport nearby. This stormwater basin is designed to hold stormwater for only 48 hours and not attract birds. Proper maintenance is necessary to avoid bird strikes". The sign will also include the name, telephone number or other contact information of the person or entity responsible to monitor the stormwater basin.
- Temporary construction equipment used during actual construction of the structure(s) shall not exceed the prescribed heights as identified in the aeronautical studies, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.

PDF-HAZ-2 Stormwater management facilities will be designed such that any modifications to open channels or native flow lines do not support potentially hazardous wildlife through the incorporation of vegetation that could provide food, shelter, or nesting habitat for wildlife. Stormwater management facilities will also be consistent with Riverside County ALUCP Condition 4 related to stormwater management facilities and detention basins (see also PDF-HAZ-1).

PDF-HAZ-3 Solid waste that is stored on site for recycling and disposal will be contained in covered receptacles that remain closed at all times.

PDF-HAZ-4 Grading plan standards related to potential ditches, terrace drains, or other minor swales will require that seed mixes used for soil stabilizations are reviewed by a QAWB and revised as necessary to exclude the use of grains or other constituents that may attract potentially hazardous wildlife.

Noise

PDF-NOI-1 **Hours of Construction.** Project construction activities shall not be conducted during the period from 10:00 p.m. on a given day until 6:00 a.m. on the following day. Additionally, outdoor construction and grading activities, including the operation of any tools or equipment associated with construction, drilling, repair, alteration, grading/grubbing or demolition work within 500 feet of the property line of a residential use, shall be prohibited between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday, between 5:00 p.m. and 8:00 a.m. on Saturdays, and at any time on Sunday or a Federal Holiday.

PDF-NOI-2 **Blasting and Drilling Limits**. No blasting shall occur within 1,000 feet of any residence or other sensitive receptor. In the event bedrock material that is not rippable by bull-dozer is encountered within 1,000 feet of any residence or other sensitive receptor, the construction contractor shall utilize expansive epoxy or other non-explosive demolition agent for any necessary removal operations. In addition to the distance limits, any blasting or drilling activities shall not exceed the City construction noise threshold of 75 dBA Leq for City residents or the County's construction noise threshold of 65 dBA Lmax for County residents.

PDF-NOI-3 **Blasting Activities.** All blasting activities shall be designed to meet the regulatory construction noise and vibration thresholds outlined on Table 4.11-7 of this EIR.

Transportation and Traffic

PDF-TRA-1 As part of the Project, the following on-site and site-adjacent roadway improvements will be constructed to accommodate site access.

Airman Drive and Cactus Avenue:

- Install a traffic signal.
- Construct a northbound shared through and -right turn lane (225 feet of storage).
- Construct dual southbound left turn lanes (225-feet of storage) and a through lane.
- Construct a westbound left turn lane (300-feet of storage) and a right turn lane.

Linebacker Drive and Cactus Avenue:

- Install a traffic signal.
- Construct the northbound approach with a left turn lane (200-feet of storage), through lane, and right turn lane (250-feet) with overlap phasing.
- Construct the southbound approach with dual left turn lanes (325-feet of storage) and shared through-right turn lane.
- Construct eastbound approach with one left turn lane (200-feet of storage), one through lane, and one shared through-right turn lane.

- Construct westbound approach with one left turn lane (300-feet of storage), one through lane, and one right turn lane (trap lane, no pocket length).

Brown Street and Cactus Avenue:

- Install a traffic signal.
- Construct the southbound approach with a shared left-right turn lane.
- Construct the eastbound approach with a left turn lane (two-way-left-turn lane) and two through lanes.
- Construct the westbound approach with a through lane and shared through-right turn lane.

Cactus Avenue:

- Construct Cactus Avenue at its ultimate full-section width as a Modified Secondary Highway (98-foot right-of-way, 76-foot curb-to-curb) between Linebacker Drive and the existing terminus west of Meridian Parkway. The right-of-way will accommodate 6-foot sidewalks and 4.5-feet of parkway on both sides along with a 5-foot bike lane, landscaped median and two traveled lanes in each direction. The West Campus Upper Plateau roadway cross-sections are shown on Exhibit 1-5 of the TA.
- Construct Cactus Avenue at its ultimate full-section width as a Modified Industrial Collector (76-foot right-of-way, 54-foot curb-to-curb) west of Linebacker Drive to Airman Drive. The right-of-way will accommodate 5-foot detached sidewalks on both sides along with a 5-foot bike lane and a single traveled lane in each direction (of 16-feet) separated by a 12-foot striped median.
- Construct a gated emergency access only connection between the terminus of Cactus Avenue at Airman Drive and Barton Street.

Barton Street:

- Construct Barton Street at its ultimate full-section width as a Collector (66-foot right-of-way, 40-foot curb-to-curb) from the existing northerly and southerly termini consistent with the City of Riverside's Circulation Element. Once completed, the roadway will provide a connection between the existing Mission Grove community to the north and Orangecrest community to the south. The right-of-way will accommodate 6-foot sidewalks on the east side with 10-foot multipurpose trail and 5-feet of landscape on the other side along with a 5-foot bike lane and a single traveled lane in each direction (of 14.5-feet). The multipurpose trail will only be accommodated for portions of Barton Street adjacent to the open space/parks. Sidewalk improvements will extend to the intersection of Grove Community Drive and Barton Street and bike racks and bike lockers will be provided near the entrance of the Park.

Brown Street:

- Construct Brown Street at its ultimate full-section width as an Industrial Collector (78-foot right-of-way, 56-foot curb-to-curb) between the existing northerly terminus and Cactus Avenue. The right-of-way will accommodate 6-foot sidewalks on both sides along with a 5-foot bike lane and a single traveled lane in each direction (of 17-feet) separated by a 12-foot striped median.

Internal Streets (Linebacker Drive, Airman Drive, Bunker Hill Drive, and Arclight Drive):

- Construct these roadways at their ultimate full-section width as an Industrial Collector (76-foot right-of-way, 54-foot curb-to-curb). The right-of-way will accommodate 6-foot sidewalks on both sides along with a 5-foot bike lane and a single traveled lane in each direction (of 16-feet) separated by a 12-foot striped median.

PDF-TRA-2 The Project will amend the existing March JPA truck routes along Brown Street to Cactus Avenue, and Cactus Avenue west from Meridian Parkway. Internal Project roadways of Linebacker Drive, Arclight Drive, Bunker Hill Drive, and Airman Drive will also be truck routes. No truck access is permitted along Barton Street.

PDF-TRA-3 **Truck Route Enforcement Program.** To address trucks turning left from Cactus Avenue onto Brown Street or otherwise violating the established truck routes, the Project applicant shall provide the March Joint Powers Authority compensation of $100,000 to fund a truck route enforcement for a period of two years.

PDF-TRA-4 **Payment of Fair Share Cost.** To address operational deficiencies at off-site intersections, the Project shall contribute approximately $321,799 as its fair share towards the improvement measures provided in the Table 1-4, Summary of Improvements and Rough Order of Magnitude Costs, of the TA (Appendix N).

Wildfire

PDF-FIRE-1 The Project shall comply with Chapter 33 of the California Fire Code, which prescribes minimum safeguards for construction, alteration and demolition operations to provide reasonable safety to life and property from fire during construction operations within a fire hazard severity zone.

PDF-FIRE-2 The Project's Fire Protection Plan (FPP) evaluates and identifies the potential fire risk associated with the Project's land uses. The Project shall implement the FPP's recommendations for water supply, fuel modification and defensible space, access, building ignition and fire resistance, and fire protection systems, among other pertinent fire protection criteria, which complies with or exceeds existing code requirements for building in a fire hazard severity zone. The Project shall also comply with the fire safety requirements and standards of the Riverside County Fire Department along with Project-specific measures based on the Project site, its intended use, and its fire environment, as defined and memorialized in the FPP.

As described in the Project's FPP and graphically represented in Figure 6 of Appendix Q, the Fuel Modification Zones would be as follows:

Zone A: Non-Combustible Zone

Zone A extends 5-feet from buildings and structures.

The ember-resistant zone is currently not required by law, but science has proven it to be the most important of all the defensible space zones. This zone includes the area under and around all attached decks and requires the most stringent wildfire fuel reduction. The ember-resistant zone is designed to keep fire or embers from igniting materials that can spread the fire to Project

buildings. The following provides guidance for this zone, which may change based on the regulations developed by the Board of Forestry and Fire Protection.

- Use hardscape like gravel, pavers, concrete and other noncombustible mulch materials. No combustible bark or mulch.
- Remove all dead and dying weeds, grass, plants, shrubs, trees, branches and vegetative debris (leaves, needles, cones, bark, etc.); Check roofs, gutters, stairways, etc.
- Limit plants in this area to low growing, nonwoody, properly watered and maintained plants.
- Relocate firewood and lumber to Zone B.
- Replace combustible fencing, gates, and arbors attach to structures with noncombustible alternatives.
- Consider relocating garbage and recycling containers outside this zone.
- Consider relocating boats, RVs, vehicles and other combustible items outside this zone.

Zone B: Paved/Irrigated Zone

Zone B extends up to 100 feet from buildings and structures.

- Remove all dead plants, grass and weeds (vegetation).
- Remove dead or dry leaves and pine needles from landscaping, roof and rain gutters.
- Remove branches that hang over rooves
- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- Relocate wood piles to Zone B.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks, balconies, and stairs.
- Create a separation between trees, shrubs and items that could catch fire, such as wood piles.

Zone C: Thinning Zone

Zone C extends from Zone B up to 100 feet from buildings and structures

- Cut or mow annual grass down to a maximum height of 4 inches.
- Create horizontal space between shrubs and trees.
- Create vertical space between grass, shrubs and trees.
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.
- All exposed wood piles must have a minimum of 10 feet of clearance, down to bare mineral soil, in all directions.

Fire Access Road Zone

Extends a minimum of 10 feet from the edge of any public or private roadway that may be used as access for fire-fighting apparatus or resources adjacent to open space. Clear and remove flammable growth for a minimum of 10 feet on each side of the access roads. Additional clearance beyond 10 feet may be required upon inspection.

- Required clearance extends a minimum of 10 feet from the edge of any public or private roadway as well as an unobstructed vertical clearance of 20-feet.
- Landscaping and native plants shall be appropriately spaced and maintained.
- Trees found in Appendix E can be planted, if they are far enough from structures and Fire Department accesses, and do not overhang any structures or access at maturity.

Roadside fuel modification for the Project consists of maintaining ornamental landscapes, including trees, clear of dead and dying plant materials. Roadside fuel modification shall be maintained by the Project.

Undesirable Plants

Certain plants are considered to be undesirable in the landscape due to characteristics that make them highly flammable. These characteristics can be physical (structure promotes ignition or combustible) or chemical (volatile chemicals increase flammability or combustion characteristics). The plants included in the FMZ Undesirable Plan List (refer to Appendix E) are unacceptable from a fire safety standpoint and shall not be planted or allowed to establish opportunistically within the FMZs or landscape areas.

PDF-FIRE-3 March JPA's Landscape, Lighting and Maintenance District shall provide tenants of the West Campus Upper Plateau Specific Plan Area with a proactive educational component disclosing the potential wildfire risk and the FPP's requirements. These educational materials shall include information on maintaining the landscape and structural components according to the appropriate standards and embracing a "Ready, Set, Go" stance on evacuation. All educational materials shall be reviewed and approved by the Riverside County Fire Department**.** The FPP was prepared for the Project in accordance with CFC Title 24, Chapter 49.

1.5 Areas of Known Controversy

A public scoping period was held to solicit input on the scope of the analysis for the EIR between November 19 and December 20, 2021. Additionally, an open house scoping meeting was held by March JPA on December 8, 2021. The purpose of this meeting was to seek input from public agencies and the general public regarding the potential environmental impacts of the proposed Project. Thirteen written comments were received during the scoping period. Comment letters are included in Appendix A of this EIR. The public comments, questions, and concerns that were received at the scoping meeting, as well as in writing, generally pertained to the following topics:

- Potential for cumulative impacts to surrounding cities
- Review by the Airport Land Use Commission is required
- Suggestion to conduct an Unexploded Ordnance Survey based on former munitions use of site
- Potential for air quality impacts from construction and operation

- Solid waste generation and landfills serving the Riverside County area
- Traffic impacts

1.6 Required Permits and Approvals

To facilitate Project approval, the following would be required; details for each component are provided below.

General Plan Amendment 21-01

The Project proposes to amend the site's General Plan Land Use designations as follows:

- Increase Parks, Recreation, and Open Space (P/R/OS) from approximately 122 gross acres to 523.43 gross acres.[2]
- Eliminate approximately 622.5 gross acres of Business Park designated property.
- Eliminate approximately 63 gross acres of Industrial designated property.
- Adopt the Meridian West Upper Plateau Specific Plan (SP-9) on approximately 369.60 gross acres, approving a mix of Business Park, Industrial, Mixed Use, Public Facility, Streets, and Open Space land uses.
- Amend the General Plan from Business Park to Public Facility on 2.87 acres to accommodate an existing water storage tank operated by Eastern Municipal Water District.

In addition, the approximately 445-acre Conservation Easement will be recorded as a permanent Conservation Easement. The amendment would modify the General Plan Land Use Plan, Table 1-1 (March JPA Planning Build Out); Exhibit 2-1, Transportation Plan; and Exhibit 2-3, Transportation Road Systems (March JPA 1999). The amendment to the Transportation Element of the General Plan will incorporate the following changes:

- Extend Cactus Avenue west to Airman Drive, with a gated emergency vehicle access roadway extending to Barton Street.
- Extend Barton Street from Alessandro Boulevard to Grove Community Drive.
- Extend Brown Street from Alessandro Boulevard to Cactus Avenue.
- Add Arclight Drive, Linebacker Drive, Bunker Hill Drive, and Airman Drive.

Specific Plan 21-01 (SP-9)

The Project proposes adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13 containing development standards, design guidelines, infrastructure master plans, maintenance responsibilities, phasing schedule, and implementation procedures necessary to develop the Project site consistent with the requested General Plan Amendment designations. The proposed Specific Plan will address land uses, zoning, and design guidelines.

The proposed land uses within Specific Plan SP-9 include the following:[3]

- 42.22 acres of Mixed Use
- 65.32 acres of Business Park

[2] A total of 8.62 acres within the 453.7 gross acres consists of streets located within the Conservation Easement.
[3] A total of 8.62 acres within the 453.7 gross acres consists of streets located within the Conservation Easement.

- 143.31 acres of Industrial
- 37.91 acres of streets and roadways[4]
- 78 acres of undeveloped Parks/Recreation/Open Space
- 2.84 acres of Public Facility

Total gross acreage = 369.60

Zoning Designation

The Project site, including both the Specific Plan Area and Conservation Easement, has not previously been given a zoning designation; therefore, the Project proposes zoning consistent with the requested Specific Plan designations of Mixed Use (MU), Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facility (PF) for the Specific Plan Area, Parks/Recreation/Open Space (P/R/OS) for the Conservation Easement, and Public Facility for the existing Eastern Municipal Water District water tank.

Tentative Parcel Map 38063

Concurrent with the General Plan and Zoning Amendments, the Specific Plan, and the Plot Plans, approval of a Tentative Parcel Map is required for the Specific Plan boundaries. Following the approval of Tentative Parcel Map, a Final Map would become the legal document that identifies developable parcels within the Specific Plan area. See Figure 3-8, Tentative Parcel Map, for more details.

Plot Plans 21-03 and 21-04

Concurrent with the General Plan and Zoning Amendments, the Specific Plan, and the Tentative Parcel Map, plot plan approvals are required to construct an approximately 1,250,000-square-foot industrial building on 59.55 acres at 20133 Cactus Avenue and a 587,000-square-foot industrial building on 27.49 acres at 20600 Cactus Avenue. Plot Plans for each of these proposed buildings are included as Figure 3-9, Building B Plot Plan, and Figure 3-10, Building C Plot Plan.

Development Agreement 21-01

Due to the scale and complexity of the proposed Project, a Development Agreement is proposed to vest the Project entitlements and fees, ensure financing of public improvements required by the conditions of approval, and provide certain Community Benefits including compliance with the terms of the CBD Settlement Agreement (Appendix S), and provision of new public benefits, including, but not limited to, expansion of employment opportunities for area residents. The Development Agreement is proposed between March JPA and Meridian Park LLC with a 15-year term and two potential 5-year extensions.

Other Discretionary Approvals

The following additional discretionary permits and approvals *may* be necessary as part of Project approval:

- **State Water Resources Control Board** – A National Pollutant Discharge Elimination System Construction General Permit (permit registration documents include a Stormwater Pollution Prevention Plan)

[4] Included in this area are 8.62 acres of streets and roadways that are within the Conservation Easement.

- **Regional Water Quality Control Board, Santa Ana Region** – 401 Water Quality Certification or a Waste Discharge Requirement Permit from the Regional Water Quality Control Board (401 certification is needed if a U.S. Army Corps of Engineers Section 404 permit is needed)
- **U.S. Army Corps of Engineers** – A Jurisdictional Determination to identify and locate the boundaries of jurisdictional waters of the United States on the Project site, and, if jurisdictional waters are impacted, a permit pursuant to Section 404 of the Clean Water Act
- **California Department of Fish and Wildlife** – A 1602 Streambed Alteration Agreement

1.7 Impacts Determined to be Significant

Table 1-2 provides a summary of the impact analysis related to the proposed Project. The table identifies a summary of the significant environmental impacts resulting from the Project pursuant to the CEQA Guidelines Section 15123(b)(1). For more detailed discussion, please see Chapter 4 of this EIR. Table 1-2 also lists the applicable mitigation measures related to identified significant impacts from the proposed Project, as well as the level of significance after mitigation is identified. As discussed in Section 4.2, Air Quality, impacts associated with operational air quality were identified as being significant and unavoidable. Cumulative impacts associated with operational air quality were also identified as being significant and unavoidable. As discussed in Section 4.4, Cultural Resources, impacts to historical and archaeological resources were identified as being significant and unavoidable. As discussed in Section 4.11, Noise, impacts associated with operational traffic noise were identified as being significant and unavoidable. Additionally, as discussed in Section 4.16, Tribal Cultural Resources, impacts associated with construction would result in significant and unavoidable impacts to tribal cultural resources (TCRs).

1.8 Effects Found Not to be Significant

As stated in Chapter 5 of this EIR, the Initial Study (Appendix A) concluded that the Project would not result in significant impacts to agricultural resources and mineral resources. Additionally, the Project would not result in significant impacts to certain thresholds for a number of environmental resources topics, as described within Appendix A, including the following: aesthetics, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, noise, population and housing, transportation, and wildfire. Therefore, these specific resource thresholds are not addressed in the EIR as separate environmental impact analysis and are not summarized in Table 1-2.

Several environmental topics were found to be less than significant with mitigation incorporated, less than significant, or result in no impact, as described in the EIR and summarized in Table 1-2, including the following: aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire.

1.9 Summary of Environmental Impacts and Mitigation

Table 1-2 provides a summary of the impact analysis related to the Project. Table 1-2 identifies a summary of the environmental impacts resulting from the Project pursuant to the CEQA Guidelines Section 15123(b)(1). For more detailed discussion, please see Chapter 4 of this EIR. Table 1-2 lists the applicable mitigation measures required to reduce potentially significant impacts, and in some cases, included to further reduce some impacts already identified as less than significant before mitigation.

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
4.1 Aesthetics			
AES-1. Would the project have a substantial adverse effect on a scenic vista?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-AES-1. Construction Equipment Staging and Screening.** The Project Applicant and their construction contractor shall stage large construction equipment and vehicles, including large trucks, cranes, and bulldozers, outside of the public viewshed when not in use. Staging areas shall be concealed by existing intervening topographical or natural features such as hill formations. If it is not possible for the construction contractor to stage equipment behind topographical/natural features, staging areas shall be concealed by fence screening and/or berming. If fencing is used, it shall be covered by a vinyl tarp or comprised of slatted chain links to screen potential views of construction.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
AES-2. 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?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
AES-3: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-AES-2. Exterior Lighting Point-by-point Photometric Study Approval.** Prior to the issuance of a building permit for Campus Development or Infrastructure Improvements, an exterior point-by-point photometric study shall be	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		submitted to March JPA for review and approval demonstrating compliance with PDF-AES-1 through PDF-AES-16, the March JPA Development Code, and the Specific Plan. The photometric study shall document the location, quantity, type, and luminance of all fixtures proposed on the Project site. **MM-AES-3. Solar Photovoltaic System Approval.** The design of solar photovoltaic system(s) shall be reviewed and approved by the Airport Land Use Commission and March Air Reserve Base (ARB) personnel prior to the issuance of building permits. In doing so, the Project Applicant shall submit a glint and glare study to be approved by the Airport Land Use Commission and March ARB that analyzes potential effects the system(s) could have on aviation. The Project Applicant shall demonstrate that the solar panels and hardware are designed to minimize glare and spectral highlighting. Technologies shall be used, such as diffusion coatings and nanotechnological innovations to effectively reduce the refractive index of the solar cells and protective glass.	
	Conservation Easement No Impact	Conservation Easement N/A	Conservation Easement N/A
Would the Project result in cumulatively considerable effects related to aesthetics?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-AES-2** and **MM-AES-3**	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
4.2 Air Quality			
AQ-1. Would the Project conflict with or obstruct implementation of the applicable air quality plan?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-AQ-1.** Prior to issuance of building permits, the developer's construction plans shall ensure the Project will utilize "Super-Compliant" low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD's Rule 1113. Super-Compliant low VOC paints shall be no more than 10 grams per liter (g/L) of VOC. Alternatively, the Applicant may utilize tilt-up concrete buildings that do not require the use of architectural coatings. **MM-AQ-2.** Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations. 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 five (5) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the California Air Resources Board to report violations. Prior to the issuance of an occupancy permit, the March Joint Powers Authority shall conduct a site inspection to ensure that the signs are in place. One six square foot sign providing this information shall be located on the building between every two dock-high doors and the sign shall be posted in highly visible locations at the entrance gates, semi parking areas, and trailer parking locations. **MM-AQ-3.** Prior to tenant occupancy, the Project applicant or successor in interest shall provide documentation to the	**Specific Plan Area** Less than Significant (Construction) Significant and Unavoidable (Operation)

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		March Joint Powers Authority demonstrating that occupants/tenants of the Project site have been provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment. **MM-AQ-4.** Prior to the issuing of each building permit, the Project applicant and its contractors shall provide plans and specifications to the March Joint Powers Authority that demonstrate that each project building is designed for passive heating and cooling and is designed to include natural light. Features designed to achieve this shall include the proper placement of windows, overhangs, and skylights. **MM-AQ-5.** Prior to the issuing of each building permit, the Project applicant and its contractors shall provide plans and specifications to the March Joint Powers Authority that demonstrate that electrical service is provided to each of the areas in the vicinity of the building that are to be landscaped in order that electrical equipment may be used for landscape maintenance. Said electrical outlets shall be located no more than every 200 feet apart. **MM-AQ-6.** Once constructed, the Project applicant or successor in interest shall ensure that all building occupants shall utilize electric equipment for landscape maintenance through requirements in the lease agreements or purchase and sell agreement. **MM-AQ-7.** Once constructed, through requirements in the lease agreements or purchase and sell agreement, the Project applicant or successor in interest shall ensure that all building occupants shall utilize only electric service yard trucks (hostlers), pallet jacks and forklifts, and other on-	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		site equipment. Yard hostlers may be diesel fueled in lieu of electrically powered, provided that the occupant submits a letter identifying that electric hostlers are technically infeasible and provided such yard hostlers are compliant with California Air Resources Board (CARB) 2010 standards for on-road vehicles or CARB Tier 4 Final compliant for off-road vehicles. As an alternative, hydrogen powered equipment shall also be acceptable. **MM-AQ-8.** Upon occupancy, through requirements in the lease agreements or purchase and sell agreement, the facility operator shall require tenants that do not already operate 2010 and newer trucks to apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1B, SmartWay Finance, or other similar funds. If awarded, the tenant shall be required to accept and use the funding. Occupants shall be encouraged to consider the use of alternative fueled trucks as well as new or retrofitted diesel trucks. Occupants shall also be encouraged to become SmartWay Partners, if eligible. This measure shall not apply to trucks that are not owned or operated by the facility operator or facility tenants since it would be infeasible to prohibit access to the site by any truck that is otherwise legal to operate on California roads and highways. **MM-AQ-9.** Through requirements in the lease agreements or purchase and sell agreement, tenants who employ 250 or more employees on a full- or part-time basis shall comply with South Coast Air Quality Management District (SCAQMD) Rule 2202, On-Road Motor Vehicle Mitigation Options. The purpose of this rule is to provide employees with a menu of options to reduce employee commute vehicle emissions. Tenants with less than 250 employees	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		or tenants with 250 or more employees who are exempt from SCAQMD Rule 2202 (as stated in the Rule) shall either (a) join with a tenant who is implementing a program in accordance with Rule 2202 or (b) implement an emission reduction program similar to Rule 2202 with annual reporting of actions and results to the March JPA. The tenant-implemented program would include, but not be limited to the following: • Appoint a Transportation Demand Management (TDM) coordinator who would promote the TDM program, activities and features to all employees. • Create and maintain a "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk, or take transit to work. • Inform employees of public transit and commuting services available to them (e.g., social media, signage). • Provide on-site transit pass sales and discounted transit passes. • Guarantee a ride home. • Offer shuttle service to and from public transit and commercial areas/food establishments, if warranted. • Coordinate with the Riverside Transit Agency and employers in the surrounding area to maximize the benefits of the TDM program. **MM-AQ-10.** Prior to the issuance of a building permit, the Project applicant shall provide evidence to the March Joint Powers Authority that loading docks are designed to be compatible with SmartWay trucks. **MM-AQ-11.** Through requirements in the lease agreements or purchase and sell agreement, upon occupancy and annually thereafter, the facility operator shall provide	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		information to all tenants, with instructions that the information shall be provided to employees and truck drivers as appropriate, regarding: • Building energy efficiency, solid waste reduction, recycling, and water conservation. • Vehicle GHG emissions, electric vehicle charging availability, and alternate transportation opportunities for commuting. • Participation in the Voluntary Interindustry Commerce Solutions (VICS) "Empty Miles" program to improve goods trucking efficiencies. • Health effects of diesel particulates, State regulations limiting truck idling time, and the benefits of minimized idling. • The importance of minimizing traffic, noise, and air pollutant impacts to any residences in the Project vicinity. **MM-AQ-12.** Prior to issuance of a building permit, the Project applicant shall provide the March Joint Powers Authority with an on-site signage program that clearly identifies the required on-site circulation system. This shall be accomplished through posted signs and painting on driveways and internal roadways. **MM-AQ-13.** Prior to issuance of an occupancy permit, the March Joint Powers Authority shall confirm that signs clearly identifying the approved truck routes have been installed along the truck routes to and from the project site and within the project site. **MM AQ-14.** Prior to issuance of an occupancy permit, the Project applicant shall install a sign on the property with telephone, email, and regular mail contact information for	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		a designated representative of the tenant who would receive complaints about excessive noise, dust, fumes, or odors. The sign shall also identify contact data for the March Joint Powers Authority or Riverside County, as determined by the permitting authority, for perceived Code violations. The tenant's representative shall keep records of any complaints received and actions taken to communicate with the complainant and resolve the complaint. The tenant's representative shall endeavor to resolve complaints within 24 hours. **MM AQ-15.** Prior to issuance of a building permit, the Project applicant shall provide the March Joint Powers Authority with project specifications, drawings, and calculations that demonstrate that main electrical supply lines and panels have been sized to support heavy truck charging facilities when these trucks become available. The calculations shall be based on reasonable predictions from currently available truck manufacturer's data. Electrical system upgrades that exceed reasonable costs shall not be required.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
AQ-2. 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?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-AQ-1** through **MM-AQ-15**	**Specific Plan Area** Less than Significant (Construction) Significant and Unavoidable (Operation)

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
AQ-3. Would the Project expose sensitive receptors to substantial pollutant concentrations?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
AQ-4. Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to air quality?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-AQ-1** through **MM-AQ-15**	**Specific Plan Area** Significant and Unavoidable (Operation)
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.3 Biological Resources			
BIO-1. 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	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-BIO-1. Best Management Practices.** To avoid impacts to special-status resources and inadvertent disturbance to areas outside the limits of the proposed Project activities,	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		the following monitoring requirements and BMPs shall be implemented: ▪ A biologist shall be contracted to perform daily monitoring during initial vegetation removal and throughout ground-disturbing activities that result in the breaking of the ground surface. After initial vegetation removal and ground disturbance that results in breaking of the ground surface, a biologist shall be contracted to perform regular random checks (not less than once per week but could be increased depending on the presence of special-status species) to ensure that all mitigation and BMPs are implemented. In addition, monitoring reports and a post-construction monitoring report shall be prepared to document compliance with these mitigation measures and BMPs. ▪ To prevent inadvertent disturbance to areas outside the limits of work, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary visibility construction fence) prior to ground-disturbance activities, and all construction activities, including equipment staging and maintenance, shall be conducted within the marked disturbance limits. The work limit delineation shall be maintained throughout Project construction. Should construction fencing be installed to delineate the limits of work, adequate openings along the southern and eastern perimeters shall be established to allow for dispersal of wildlife into the adjacent undeveloped lands. The contractor shall consult with the biological monitor to confirm that construction fencing will prevent unauthorized access beyond the limits of work while allowing wildlife to escape from active construction areas.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		▪ A qualified biologist shall carefully evaluate for and potentially flush special-status mammal or reptile species from suitable habitat areas within the Specific Plan Area to the maximum extent practicable immediately (e.g., within 24 hours) prior to initial vegetation removal activities. The biologist shall flush wildlife by walking through habitat to be immediately removed. ▪ Construction vehicles shall not exceed 15 miles per hour on unpaved roads adjacent to the Specific Plan Area or the right-of-way accessing the site. ▪ Construction activities will occur during daytime hours. ▪ If trash and debris need to be stored overnight during maintenance activities, fully covered trash receptacles that are animal-proof and weather-proof will be used by the maintenance contractor to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Alternatively, standard trash receptacles may be used during the day, but must be removed each night. ▪ Cut vegetation shall be hauled out of any waterways and stored, if necessary, where it cannot be washed by rainfall or runoff into waterways. When construction activities are completed, any excess materials or debris shall be removed from the Specific Plan Area. ▪ Temporary structures and storage of construction materials will not be located in jurisdictional waters, including wetlands or riparian areas. ▪ Staging/storage areas for construction equipment and materials will not be located in jurisdictional waters, including wetland or riparian areas or within the buffer areas as determined by the resource agencies during the waters permitting process.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		▪ The operator will not permit pets on or adjacent to construction sites. As per the Landscaping Guidelines of the Resource Management Element of the March Joint Powers Authority (JPA) General Plan (1999), drought-tolerant vegetation and native vegetation will be used to the extent feasible, consistent with March JPA Landscape Water Efficiency Ordinance #JPA 16-03, with the purpose of preserving existing mature trees and native vegetation. A qualified botanist shall review landscape plans to recommend appropriate provisions to minimize the spread of invasive plant species, as defined by the California Invasive Plant Council (www.cal-ipc.org), California Native Plant Society (www.cnps.org), and the Western Riverside MSHCP within the Specific Plan Area. Provisions may include a) installation of container plants and/or hydro-seeding areas adjacent to existing, undisturbed native vegetation areas with native plant species that are common within temporary impact areas; and b) review and screening of proposed plants to identify and avoid potential invasive species and weed removal during the initial planting of landscaped areas. **MM-BIO-2. Least Bell's Vireo.** The Project does not include direct impacts to least Bell's vireo habitat, but has potential to indirectly impact least Bell's vireo habitat outside of the Specific Plan Area boundary. The following avoidance and minimization measures shall be implemented to avoid indirect impacts to least Bell's vireo: ▪ Environmental awareness training for all construction personnel to educate personnel about least Bell's vireo and protective status avoidance measures to be	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		implemented by all personnel, including the avoidance of nesting bird season to the greatest extent feasible and minimization of vegetation impacts within suitable riparian habitat; ▪ Demarcation of the extent of construction limits with temporary construction fencing to be maintained until construction is complete; ▪ Construction noise levels shall not exceed a 60 dBA Leq hourly average within the occupied least Bell's vireo habitat located adjacent to the Specific Plan Area during least Bell's vireo nesting season (March 15 to September 15), unless authorized by the appropriate regulatory authorities (i.e., CDFW and USFWS). The 60 dBA Leq hourly average limit has been established by USFWS. Noise testing will be conducted within suitable riparian habitat contiguous with occupied least Bell's vireo territories at the vegetation limit closest to the project site. Please note that noise limits are only applicable to the occupied habitat and suitable contiguous riparian vegetation; noise limits do not apply to a buffer around the habitat. At the onset of least Bell's vireo breeding season, a qualified biologist shall conduct non-protocol surveys to confirm the locations of vireo territories. Noise monitoring will be conducted by a biologist familiar with least Bell's vireo behavior. While conducting noise monitoring, the biologist will observe vireo to ensure normal breeding behaviors are not indirectly impacted by construction activities. The biologist shall be authorized to stop work if any adverse impacts on least Bell's vireo are detected. A noise level verification report shall be submitted to March JPA every 2 weeks during the duration of site grading and construction phases. If	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		construction activities are found to result in average hourly noise levels greater than 60 dBA Leq, noise attenuation measures shall be implemented to reduce noise within least Bell's vireo breeding habitat to below the 60 dBA Leq limit. In such a case, construction activities may not resume until a reduction in noise within occupied least Bell's vireo habitat is documented. **MM-BIO-3. Operation-Related Indirect Impacts to Special-Status Wildlife.** Prior to issuance of a building permit within 500 feet of suitable habitat for special-status species with potential to occur, construction plans and conditions of approval shall include the following to address indirect impacts to special-status species: • **Runoff:** Development within 500 feet of suitable habitat for special-status species shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System requirements, to ensure that the quantity and quality of runoff discharged is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into proposed open space or suitable habitat for special-status species. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes. This can be accomplished using a variety of methods including natural detention basins, grass swales, or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• **Toxicants:** Land uses that use chemicals or generate bioproducts such as manure, fertilizer, or vineyard waste that are potentially toxic or may adversely affect plant species, wildlife species, habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharges. Measures such as those employed to address drainage issues shall be implemented. • **Lighting:** Permanent night lighting shall be directed away from proposed open space and/or suitable habitat for special-status species to protect species from direct night lighting. Shielding shall be incorporated in Specific Plan designs to ensure ambient lighting is not increased. Any trails that intersect proposed open space will not include night lighting. • **Noise***:* Proposed noise-generating land uses affecting suitable habitat for special-status species shall incorporate setbacks, berms, or walls to minimize the effects of noise on resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards. For planning purposes, wildlife should not be subject to noise that would exceed residential noise standards. • **Invasive Species:** When approving landscape plans for future development, emphasis will be placed on using native species that occur in the region. Invasive, non-native plant species listed on the most recent California Invasive Plant Council inventory (https://www.cal-ipc.org/plants/inventory/) with a rating of moderate or high shall not be included in landscaping.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• **Barriers**: Future development shall incorporate barriers, where appropriate in individual project designs, to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in proposed open space and/or suitable habitat for special-status wildlife. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms. Any proposed trails through open space will have gates that close at nighttime, as well as signage and appropriate barriers to keep people and domestic animals on the trail. • **Restoration of Temporary Impacts:** Prior to issuance of a grading or building permit within the Specific Plan, grading and construction plans shall include the following note regarding any temporary impacts to uplands: o Site construction areas subjected to temporary ground disturbance in undeveloped areas shall be subjected to revegetation with an application of a native seed mix, if necessary, prior to or during seasonal rains to promote passive restoration of the area to pre-Project conditions (except that no invasive plant species will be restored). An area subjected to "temporary" disturbance means any area that is disturbed but will not be subjected to further disturbance as part of the Project. If any grading occurred in areas intended to remain undeveloped, the site will be recontoured to natural grade. This measure does not apply to situations in urban/developed areas that are temporarily impacted and will be returned to an urban/developed land use. Prior to seeding	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		temporary ground disturbance areas, the Specific Plan biologist will review the seeding palette to ensure that no seeding of invasive plant species, as identified in the most recent version of the California Invasive Plant Inventory for the region, will occur. **MM-BIO-4. Stephens' Kangaroo Rat Avoidance and Mitigation.** Stephens' kangaroo rat has a high potential to occur within the Specific Plan Area and is assumed present. The Specific Plan Area does not occur within the Stephen's Kangaroo Rat 'core reserves' and incidental take of Stephens' kangaroo rat is permitted within the Specific Plan Area. The following measures to reduce the potential for direct impacts on the species shall be adhered to during construction: • The perimeter of construction will be delineated with exclosure fencing. The installation and removal of fencing will avoid direct impacts to existing Stephen's kangaroo rat burrows. Exclosure fencing will have the following specifications: o Chain link fence with an erect height of 3 feet. o The bottom 2 feet of the erect portion of the fencing needs to be covered in a material that cannot be climbed or chewed through by Stephen's kangaroo rat; metal flash or similar material is recommended. o The bottom 2 feet of fencing must be buried two feet underground. o The fence must be installed under the supervision of a qualified biologist with Stephen's kangaroo rat experience to oversee installation. This biologist will inspect the fence before leaving the job site in the evening and repair any opening in the fencing. The fence removal will also require the supervision of a qualified biologist.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• A Worker Environmental Awareness Program (WEAP) will be developed and implemented prior to the start of excavation. The WEAP will be presented by the qualified biologist(s) and will cover the sensitive resources found on-site, flagging/fencing of exclusion areas, permit requirements, trash and debris collection and deposal, spill avoidance and clean-up, and other environmental issues. • Spoils, trash, and any excavation-generated debris will be removed to an approved off- site disposal facility. Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators to the site, such as common ravens, coyotes, and feral cats and dogs that may prey on listed species. • Construction activities will be limited to daylight hours. • Construction lighting will be shielded away from surrounding natural areas. Fixtures will be shielded to downcast below the horizontal plane of the fixture height and mounted as low as possible. **MM-BIO-5A. Burrowing Owl Avoidance and Mitigation Measures.** No less than 14 days prior to the onset of construction activities, a qualified biologist shall survey the construction limits of the Specific Plan Area and a 500-foot buffer for the presence of burrowing owls and occupied nest burrows. A second survey shall be conducted within 24 hours prior to the onset of construction activities. The surveys shall be conducted in accordance with the most current CDFW survey methods. If burrowing owls are not detected during the clearance survey, no additional conditions may be required to avoid impacts to burrowing owl.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		If burrowing owl is documented, occupied burrowing owl burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either the birds have not begun egg laying and incubation, or that juveniles from the occupied burrows are foraging independently and capable of independent survival. Disturbance buffers shall be implemented by a qualified biologist in accordance with the recommendations included in the Staff Report on Burrowing Owl Mitigation (CDFW 2012). A biologist shall be contracted to perform monitoring during all construction activities approximately every other day. The definitive frequency and duration of monitoring shall be dependent on whether it is the breeding versus non-breeding season and the efficacy of the exclusion buffers, as determined by a qualified biologist and in coordination with CDFW. If burrowing owl is detected during the non-breeding season (September 1 through January 31) or confirmed to not be nesting, a non-disturbance buffer between the project activities and the occupied burrow shall be installed by a qualified biologist in accordance with the recommendations included in the Staff Report on Burrowing Owl Mitigation (CDFW 2012). **MM-BIO-5B. Burrowing Owl Relocation and Mitigation Plan.** If avoidance is not possible, either directly or indirectly, a Burrowing Owl Relocation and Mitigation Plan (Plan) shall be prepared and submitted for approval by CDFW. Once approved, the Plan would be implemented to relocate non-breeding burrowing owls from the Specific Plan Area. The Plan shall detail methods for passive relocation of burrowing owls from the Specific Plan Area, provide guidance for monitoring and management of the	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		replacement burrow sites, and associated reporting requirements, and ensure that a minimum of two suitable, unoccupied burrows, and associated suitable habitat, are available off site for every burrowing owl or pair of burrowing owls to be relocated. Compensatory mitigation of habitat would be required if occupied burrows or territories occur within the permanent impact footprint. Habitat compensation shall be approved by CDFW and detailed in the Burrowing Owl Relocation and Mitigation Plan. The Project applicant shall submit at least one burrowing owl pre-construction survey report to the satisfaction of the March Joint Powers Authority and CDFW to document compliance with this mitigation/avoidance measure. For the purposes of this mitigation measure, 'qualified biologist' is a biologist who meets the requirements set forth in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). **MM-BIO-6. San Diego Black-Tailed Jackrabbit.** Thirty days prior to construction, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit. If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the pup-rearing season (February 15 through July 1). This buffer may be reduced based on the location of the den upon consultation with CDFW. Occupied maternity dens, depressions, nests, and burrows shall be flagged for avoidance. A biologist shall be contracted to perform daily monitoring during initial vegetation removal and	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		throughout ground-disturbing activities that result in the breaking of the ground surface, as further described in MM-BIO-3 If construction fencing is installed, the contractor shall establish adequate openings within the southern and eastern fence perimeters to allow for passive dispersal into adjacent undeveloped lands during construction. If unattended young are discovered, they shall be relocated to suitable habitat by a qualified biologist. The qualified biologist shall document all San Diego black-tailed jackrabbits identified, avoided, and/or moved, and provide a written report to CDFW within 72 hours. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits. **MM-BIO-7. Nesting Bird Avoidance and Minimization Measures.** The Specific Plan Area supports suitable habitat for nesting birds. As such, the following mitigation is required to reduce impacts on nesting birds: To avoid direct impacts to raptors and/or native/migratory birds (including California horned lark, Cooper's hawk and yellow warbler), vegetation removal and grading activities should occur outside of the breeding season for these species (February 1 through September 15). If removal of habitat in the proposed area of disturbance or building demolition must occur during the breeding season, a qualified biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds in the proposed area of disturbance and within a 100-foot buffer for general avian species and a 500-foot buffer for raptor species. The pre-construction survey shall be conducted within three (3) calendar days prior to the start of construction activities (including removal of vegetation) or building demolition.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		If nesting birds are observed, a letter report or mitigation plan in conformance with applicable state and federal law (i.e., appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the CDFW and/or USFWS as applicable for review and approval and implemented to the measures identified in the report or mitigation plan are in place prior to and/or during construction. If nesting birds are not detected during the pre-construction survey, no further mitigation is required.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
BIO-2. 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?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-BIO-8. Upland Vegetation Communities.** To mitigate potential impacts on upland vegetation, the following mitigation shall be completed by the Applicant prior to issuance of grading permits. Note that upland native habitat mitigation outlined herein is consistent with the MSHCP requirements for these communities. Though the March JPA is an independent agency and not a participant under the MSHCP, performing mitigation in compliance with this regional conservation plan helps minimize and avoids significant cumulative biological impacts. Project impacts on encelia scrub (1.53 acres) flat-topped buckwheat (4.56 acres), Riversidean sage scrub (5.54 acres) shall be mitigated at a 1:1 ratio, and project impacts on Riversidean sage scrub – disturbed (4.05 acres) will be mitigated at a 0.5:1 ratio through the purchase of 13.66	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		acres of coastal or Riversidean sage scrub credits at an approved mitigation bank, such as the Chiquita Canyon Conservation Bank, Soquel Canyon Mitigation Bank, Brook Forest Conservation Bank, or Daley Ranch Conservation Bank. **MM-BIO-9. Aquatic Resources Mitigation.** The Specific Plan Area supports aquatic resources that are considered jurisdictional under the USACE, RWQCB and CDFW. Prior to construction activity, the Applicant shall coordinate with the USACE, Los Angeles District to assure conformance with the requirements of Section 404 of the Clean Water Act and with the Santa Ana RWQCB (Region 8) to assure conformance with the requirements of Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Prior to activity within CDFW-jurisdictional streambed or associated riparian habitat, the Applicant shall coordinate with CDFW (Eastern Sierra and Inland Desert Region 6) relative to conformance to the Lake and Streambed Alteration permit requirements. The Project shall mitigate at not less than 1:1 with re-establishment credits (0.28 acres USACE/0.28 acres RWQCB/1.68 acres CDFW) for impacts on aquatic resources as a part of an overall strategy to ensure no net loss. Mitigation shall be completed through use of a mitigation bank (e.g., Riverpark Mitigation Bank or the Barry Jones Wetland Mitigation Bank) or other applicant-sponsored mitigation (e.g., applicant-sponsored mitigation through the Riverside-Corona Resource Conservation District). Final mitigation ratios and credits shall be determined in consultation with the USACE, RWQCB, and/or CDFW based on agency evaluation of current	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		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 will include but is not limited to: 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 off-site applicant sponsored mitigation shall be conserved and managed in perpetuity. Best management practices (BMPs) shall be implemented to avoid any indirect impacts on jurisdictional waters, including the following: • Vehicles and equipment will not be operated in ponded or flowing water or within buffer areas as determined by the agencies during aquatic resource permitting, except as described in permits. • Water containing mud, silt, or other pollutants from grading or other activities will not be allowed to enter jurisdictional waters or be placed in locations that may be subjected to high storm flows. • Spoil sites will 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	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		products, or any other substances that could be hazardous to vegetation or wildlife resources, resulting from Project-related activities, will be prevented from contaminating the soil and/or entering avoided jurisdictional waters and buffer areas as determined by the agencies during aquatic resource permitting. • No equipment maintenance will be performed within jurisdictional waters or within buffer areas as determined by the agencies during aquatic resource permitting, including wetlands and riparian areas, where petroleum products or other pollutants from the equipment may enter these areas. Fueling of equipment will not occur on the Project site.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
BIO-3. 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?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-BIO-1** and **MM-BIO-9** above.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
BIO-4. 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?	**Specific Plan Area and Conservation Easement** Less than Significant	**Specific Plan Area and Conservation Easement** N/A	**Specific Plan Area and Conservation Easement** N/A
BIO-5. Would the Project conflict with any local policies or ordinances protecting biological	**Specific Plan Area**	**Specific Plan Area** See **MM-BIO-1** through **MM-BIO-9** above.	**Specific Plan Area**

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
resources, such as a tree preservation policy or ordinance?	Potentially Significant		Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
BIO-6. 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?	**Specific Plan Area and Conservation Easement** Less than Significant	**Specific Plan Area and Conservation Easement** See **MM-BIO-1**, **MM-BIO-2**, **MM-BIO-5A**, **MM-BIO-5B**, and **MM-BIO-9** above.	**Specific Plan Area and Conservation Easement** Less than Significant
Would the Project result in cumulatively considerable effects related to biological resources?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-BIO-1** through **MM-BIO-9** above.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Cultural Resources			
CUL-1. Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-CUL-1. Archaeological Testing Plan (ATP).** Prior to the issuance of any grading permits, the project applicant shall submit an ATP, approved by the consulting tribes (Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians), that details the procedures to fully document the boundaries of resources within or directly adjacent to the APE (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5421, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-15), determine the resource's potential for inclusion in the CRHR, and ensure adequate mitigation	**Specific Plan Area** Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		measures are set forth for their respective resources, in consultation with the tribes. The testing program shall avoid any unnecessary excavation of significant deposits, should they be discovered, to minimize archaeological impacts to the site. This testing would only occur at these specific resources along the periphery of the area of impact. The number of shovel test pits (STPs) will vary, with an anticipated range of four to 15 per site. During all field studies, a representative from Pechanga and Soboba will be requested to participate in and monitor the testing program. **MM-CUL-2 Cultural Resources Monitoring Plan (CRMP).** After implementation of the ATP and prior to the issuance of any grading permits, the project applicant shall prepare a CRMP to explicitly detail the methods and procedures for avoidance and protection measures for cultural resources and the procedures for the inadvertent discovery of unrecorded cultural resources. This CRMP shall include but not be limited to the following guidelines: • The CRMP shall be prepared by an archaeologist meeting the Secretary of the Interior Standards, in consultation with consulting tribe(s) (Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians), the developer, and March JPA, and completed prior to any development within the APE. • All ground disturbing activities within the Project shall be monitored by a qualified archaeologist and Native American monitor(s). • The monitoring frequency and coverage area may be adjusted based on observed sensitivity for encountering cultural resources by the qualified archaeologist in consultation with the tribe and March JPA.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• If any human remains are discovered, the Riverside County Coroner and March JPA shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), shall be contacted in order to determine proper treatment and disposition of the remains. • All ground disturbing activities within 10 to 15 feet of a recorded archaeological feature shall be conducted in a controlled fashion, slowly and deliberately, to ensure any potential subsurface resources will be identified. • The CRMP shall include the mitigation measures developed in consultation with the tribes after implementation of the ATP. **MM-CUL-3 Contractor Specifications**. Following the completion of the Archaeological Testing Plan and Cultural Resources Monitoring Plan and prior to issuance of any grading permit, the Project applicant shall provide evidence, to March JPA's satisfaction, that the approved provisions/ recommendations as determined in the CRMP are included in Contractor Specifications. The specifications shall include but not be limited to the following: • "The features outside of the area of direct impact (CA-RIV-4068 Feature A; CA-RIV-5420 Features A, B, C, D, and E; CA-RIV-5421 Feature 1; CA-RIV-5811 Features 1 and 2; CA-RIV-5812 Features 8 and 9; CA-RIV-5819 Features 1, 2, and 3; Temp-9 Feature A; and Temp-14 Feature A) shall be preserved."	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• The Contractor Specifications shall include the mitigation measures developed in consultation with the tribes after implementation of the ATP. • "Controlled grading within 10 to 15 feet of a recorded archaeological feature shall be implemented." • "Should any cultural resources be discovered during earth-moving activities, no further grading shall occur in the area of the discovery until the Planning Director is satisfied that adequate provisions are in place to evaluate and protect these resources." This condition and the approved provisions/recommendations as determined in the CRMP, shall be incorporated on the cover sheet of the grading plan. **MM-CUL-4. Workers Environmental Awareness Program (WEAP) Training.** An archaeologist meeting the Secretary of the Interior Standards and Native American monitor(s) shall attend a pre-grading meeting to conduct a WEAP training regarding cultural and archaeological sensitivity for all construction personnel and monitors who are not trained archaeologists. A PowerPoint presentation and handout or pamphlet shall be prepared to ensure proper identification and treatment of inadvertent discoveries. 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 and tribal cultural resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources, tribal cultural resources, or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		contact of the site supervisor and archaeological monitor and tribal monitor(s). **MM-CUL-5. Native American and Archaeological Monitoring.** A Native American Monitor and Secretary of Interior Qualified Archaeologist shall be present during all earth-moving construction activities. At least 30 days prior to issuance of grading permits, separate agreements shall be developed with each monitoring Native American Tribes, addressing the roles of the Developer/Applicant, the Qualified Archaeologist, and the Consulting Tribe(s). The Developer/Applicant shall submit fully executed copies of the following to the March JPA: (1) contract for the retention of an archaeologist; (2) contract between the Tribe(s) for Tribal monitoring; (3) the contract between the Tribe(s) and the land owner/Applicant/Developer for the monitoring of the Project construction. Archaeological monitoring shall occur as outlined in the CRMP. **MM-CUL-6. Avoid Environmentally Sensitive Areas (ESA).** Prior to the issuance of grading permits, all features recommended to be preserved in place shall be fenced off with construction fencing and identified as ESAs to ensure project personnel do not disturb the features. Specific requirements pertaining to the avoidance buffer, style, materials, access, maintenance, and other requirements shall be provided within the CRMP. **MM-CUL-7 Inadvertent Discovery of Archaeological Resources.** In the event that archaeological resources or tribal cultural resources are inadvertently unearthed during excavation and grading activities for the Project, the contractor shall cease all earth-disturbing activities within a 100-foot radius of the area of discovery. The Project cultural resources professionals, including the appropriate	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		tribe(s), shall evaluate the significance of the find and determine the appropriate course of action. If avoidance of the resources is not feasible, salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed and shall take into account tribal preferences and sensitivity concerns. After the find has been appropriately avoided or mitigated and cleared by March JPA, the Project cultural resources professional and, if applicable, the Native American monitor(s), work in the area may resume. Pursuant to California Public Resources Code Section 21083.2(b), avoidance is the preferred method of preservation for archaeological resources. If the Developer, the Project archaeologist and the Native American Monitor(s) cannot agree on the significance or the mitigation for such resources, these issues will be presented to the March JPA Planning Director for decision. The March JPA Planning Director shall make a determination based on the provisions of CEQA with respect to archaeological and tribal cultural resources and shall take into account the religious beliefs, customs, and practices of the appropriate Native American tribes. Notwithstanding any other rights available under the law, the decision of the March JPA Planning Director shall be appealable to the March JPA Commission. If potentially significant features or sites are discovered, an Evaluation Plan shall be developed by the Project archaeologist and the applicable Native American representative and shall contain, at a minimum, a research design and field methodology designed to address the criterion outlined in the CRHR. If a site is determined to be significant, data recovery excavations may be necessary unless the resource is avoided and preserved/protected in place. Evaluation and treatment shall be supervised by an	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		individual or individuals that meet the Secretary of the Interior's Professional Qualification Standards. If the Tribe(s) disagree with regard to the determined significance of the discovery and/or the proposed management strategy for a cultural resource of Native American origin or cultural importance, these issues will be presented to the March JPA Planning Director for decision. The March JPA Planning Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the Project's archaeological Principal Investigator and shall consider the cultural and religious practices of the Tribe(s). Notwithstanding any other rights available under the law, the decision of the March JPA Planning Director shall be appealable to the March JPA Commission. **MM-CUL-8 Archaeological Monitoring Report.** A report, prepared by an archaeologist meeting the Secretary of the Interior Standards, documenting monitoring activities conducted by a qualified archaeologist and Native American monitor(s) shall be submitted to March JPA within 60 days of completion of grading or other project-related activities with the potential to impact archaeological or tribal cultural resources. This report shall document the known resources on the property, describe how each mitigation measure was fulfilled, and document the type of cultural resources recovered and the disposition of such resources. The report will be submitted to March JPA, the Eastern Information Center, and the appropriate tribe(s).	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
CUL-2. Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-CUL-1** through **MM-CUL-8**	**Specific Plan Area** Significant and Unavoidable
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
CUL-3. Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-CUL-9 Inadvertent Discovery of Human Remains.** In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the Riverside County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, the County Coroner shall notify the NAHC within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.	**Specific Plan Area** Less Than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project result in cumulatively considerable effects related to cultural resources?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-CUL-1** through **MM-CUL-9** above.	**Specific Plan Area** Significant (Historical and Archaeological) Less Than Significant (Human Remains)
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.4 Energy			
ENG-1. Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	**Specific Plan Area** Less than Significant	**Specific Plan Area** See **MM-AQ-9** and **MM-GHG-1** through **MM-GHG-11**	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
ENG-2. Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	**Specific Plan Area** Less than Significant	**Specific Plan Area** **MM-GHG-1** through **MM-GHG-11**	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to energy?	**Specific Plan Area** Less than Significant	**Specific Plan Area** See **MM-GHG-1** through **MM-GHG-11** above.	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.5 Geology and Soils			
GEO-1. Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Strong seismic ground shaking? ii) Seismic-related ground failure, including liquefaction?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
GEO-1. Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: iii) Landslides?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-GEO-1. Slope Stability** a. All grading shall be performed in accordance with the grading guidelines outlined in the March Joint Powers Authority (JPA) Development Code and the West Campus Upper Plateau Specific Plan. b. Prior to the issuance of grading permits, the Project applicant shall submit evidence to the satisfaction of the March JPA that all future grading and construction on the Project site shall comply with the geotechnical recommendations contained in the Geotechnical Exploration, Proposed Meridian West Campus Upper Plateau, East of La Crosse Street and South of Camino del Sol Riverside County, California, dated December 13, 2022, included as Appendix G of this EIR, as well as subsequent design-level geotechnical reports. Proposed tentative tract map (i.e., pertaining to grading) and construction approval letters from the March JPA Planning Manager constitute evidence that all future grading and construction on the Project site	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		would comply with the applicable geotechnical recommendations. c. All future development shall use proper erosion control measures during and following construction. Landscaping and slope maintenance shall be conducted as soon as possible after grading in order to increase long-term surficial stability of slope faces. d. Temporary and permanent cut slopes, including temporary slopes created during potential blasting operations, shall be monitored during grading by a California Certified Engineering Geologist for signs of potentially unstable conditions. If unstable conditions are encountered during grading, a stabilization fill may be considered, as specified in the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G). If potentially unstable slopes are created as a result of blasting, the temporary slopes shall be laid back to a gradient acceptable to the on-site geologist.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
GEO-2. Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site lateral spreading, subsidence, liquefaction or collapse?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-GEO-1** above.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
GEO-3. Would the Project be located on expansive soil, as defined in Section 1803A.5.3, Expansive	**Specific Plan Area**	**Specific Plan Area** N/A	**Specific Plan Area**

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Soil, of the CBC (2019), creating substantial risks to life or property?	Less than Significant		Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
GEO-4. Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-GEO-2. Paleontological Resources.** a. Monitoring of mass grading and excavation activities in areas identified as likely to contain paleontological resources (see Figure 2 in the preliminary geotechnical investigation (Appendix G)) by a qualified paleontologist or paleontological monitor. Prior to the issuance of grading permits, developer shall provide, to the satisfaction of the March JPA, evidence of engagement of a qualified paleontologist or paleontological monitor with authority as required by this mitigation measure. The qualified paleontologist or paleontological monitor shall develop a paleontological program consistent with this mitigation measure. Full-time monitoring of grading or excavation activities shall be performed starting at a depth of 4 feet below the surface in undisturbed areas of Pleistocene sedimentary deposits within the Project boundaries. Paleontological monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall be empowered to temporarily halt or divert equipment to allow for the removal of abundant or large specimens in a timely manner. The March JPA may authorize a reduction in monitoring if the potentially fossiliferous units are not present in the	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		subsurface or, if present, are determined by qualified paleontological personnel upon exposure and examination to have a low potential to contain or yield fossil resources. b. Paleontological salvage shall be done consistent with the recommendations outlined in the Paleontological Resources Report, included as Appendix H to the EIR. c. The qualified paleontologist or paleontological monitor shall prepare a final monitoring and mitigation report of findings and significance, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). The report, when accepted as satisfactory by the March JPA, will signify satisfactory completion of the project program to mitigate impacts to paleontological resources.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to geology and soils?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.6 Greenhouse Gas Emissions			
GHG-1. Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-GHG-1.** Prior to issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating solar photovoltaic (PV) electricity generation sufficient to generate at least 30% of	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
GHG-2. Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		the building's power requirements will be installed as part of the building permit or has already been installed under a previously issued building permit for the Project. All solar photovoltaic systems shall be reviewed by March Air Reserve Base through a glint and glare study. The schedule of solar voltaic system locations may be updated as needed. **MM-GHG-2.** Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating all light bulbs and light features within the Project are Energy Star certified. **MM-GHG-3.** Prior to the issuance of each building permit, the applicant will provide March Joint Powers Authority with sufficient evidence demonstrating the building will install duct insulation to a minimum level (R-6) of and modestly enhanced window insulation (0.28 or less U-factor, 0.22 or less SHGC) consistent with the Riverside County Climate Action Plan criteria. **MM-GHG-4.** Consistent with the Climate Action Plan criteria and prior to the issuance of each building permit, the applicant shall provide March JPA with sufficient evidence demonstrating the building will include the following design elements: Construction of modest cool roof, defined as Cool Roof Rating Council (CRRC) Rated 0.15 aged solar reflectance and 0.75 thermal emittance; Use of heating, ventilation, and air conditioning (HVAC) equipment with a season energy efficiency ratio (SEER) of 14 or higher and energy efficiency ratio [EER] 14/78% annual fuel utilization efficiency [AFUE] or 8 heating seasonal performance factor [HSPF]; Installation of water heaters with an energy factor of .92 or higher; All rooms will have some form of daylighting (e.g., skylights or windows).	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-GHG-5. Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide enhanced insulation (rigid wall insulation R-13, roof/attic R-38). **MM-GHG-6.** Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide blower door home energy rating system (HERS) verified envelope leakage or equivalent. MM-GHG-7. The Project will provide circuitry and capacity for installation of a minimum of 20 EV charging stations consistent with the County's Climate Action Plan. **MM-GHG-8.** Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide water efficient toilets (1.5 gallons per minute [gpm]). **MM-GHG-9.** Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide waterless urinals. **MM-GHG-10.** Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide water efficient faucets (1.28 gpm). **MM-GHG-11.** Prior to the issuance of any grading permit, the Project will provide an in-lieu payment to the March Joint Powers Authority for the installation of a bus shelter on Alessandro Boulevard, not to exceed $17,000. If the	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		bus shelter is not installed within 7 years of Project approval, the amount will be refunded to the developer.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to greenhouse gas emissions?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-GHG-1** through **MM-GHG-11** above.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.7 Hazards and Hazardous Materials			
HAZ-1. Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-HAZ-1. Abatement of Hazardous Building Materials.** Prior to issuance of demolition or grading permits, the Project applicant shall submit documentation to the satisfaction of the March JPA that all recommendations from the January 17, 2022, Leighton Consulting Inc. Phase II Environmental Site Assessment for Meridian – West Campus Upper Plateau and the May 5, 2022, Leighton Consulting Inc. Hazardous Material (PCB/Treated Wood Waste) Investigation Report have been implemented at the Project site including but not limited to the following: • The 42 pole-mounted transformers on site shall be disposed or recycled in accordance with 40 CFR 761 and accompanied by the findings of the April 26, 2022 sampling results including the one sample that showed the presence of Aroclor 1260 at a concentration of 1.5 milligrams per kilogram. In the event that during removal activities, transformer oil is identified or	**Specific Plan Area** Less than significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		suspected in underlying soils, an assessment of nearby soils and/or hardscapes for PCBs shall be performed in accordance with the requirements set forth in 40 CFR 761. • Applicable laws and regulations regarding the abatement and removal of asbestos containing materials, metals (cadmium, chromium and/or lead), mercury in light switches and fluorescent tubes, and lead-based paint shall be adhered to and implemented prior to demolition activities. • Universal Waste Rule items shall be managed in accordance with applicable regulatory requirements. • All wood poles found throughout the site shall be managed in accordance with California's Alternative Management Standards for treated wood waste consistent with California Health and Safety Code Sections 25230 through 25230.18. • Evaluate various wastes identified at the site for hazardous waste characterization under California and RCRA standards for appropriate disposal to a licensed disposal facility. • All ground disturbing activities shall be conducted by workers trained to look for any suspect contamination which can include odorous soils, soil staining, pipelines, underground storage tanks, or other waste debris. If encountered, earthwork activities shall cease until laboratory analysis of soil samples have been conducted and direction given from the Air Force and/or overseeing agency.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
HAZ-2. 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?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
HAZ-3. 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?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-HAZ-2. Materials Storage Near School.** Facilities located within one-quarter mile of an existing school, including public or private schools as well as preschools, shall not store, handle, or use toxic or highly toxic gases at quantities that exceed threshold levels established by California Health and Safety Code Section 25532.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
HAZ-4. 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?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-HAZ-3. Airport Compatibility.** Prior to issuance of building permits, the Project applicant shall ensure the following: • All development shall be designed in a manner which does not encroach into civilian and military airspace, as determined through a Federal Aviation Administration 7460-1 airspace analysis, that shall be completed prior to review by the Riverside County Airport Land Use Commission and the March Joint Powers Authority (JPA) granting individual plot plan approval. • The Project engineer for any development shall submit information confirming that open detention basins,	**Specific Plan Area** Less than significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		when incorporated into the Project, shall completely drain within 48 hours of a rain event. • Within Airport Compatibility Zone C1, above ground storage of more than 6,000 gallons of flammable or hazardous materials shall be reviewed by the Riverside County Airport Land Use Commission, prior to consideration of these facilities by the March JPA. • Irrespective of above bullet, use/storage of acutely hazardous materials within Airport Compatibility Zone C1, in excess of threshold levels as identified by the state of California in Title 8 of the Code of Regulations Appendix A to Section 5189 - List of Acutely Hazardous Chemicals, Toxics and Reactive, shall file for approval by the Riverside County Airport Land Use Commission prior to review and approval of the use by the March JPA. • All development shall be consistent with the conditional approvals by the Riverside County Airport Land Use Commission made in their May 16, 2022 Development Review File No. ZAP1515MA22 as well as the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
HAZ-5. Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-FIRE-1** below.	**Specific Plan Area** Less than Significant
	Conservation Easement Less than Significant	**Conservation Easement** N/A	**Conservation Easement** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project result in cumulatively considerable effects related to hazards and hazardous materials?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement Less than Significant	**Conservation Easement** N/A	**Conservation Easement** N/A
4.8 Hydrology and Water Quality			
HYD-1. Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-HYD-1. Interim Soil Stabilization Plan.** Prior to issuance of a grading permit for the Specific Plan Area, an Interim Soil Stabilization Plan shall be developed to the satisfaction of the March Joint Powers Authority (JPA), detailing measures that will be taken to prevent soil erosion subsequent to grading and prior to construction on individual parcels. Examples of soil stabilization measures include construction of temporary desilting basins, hydroseeding for temporary establishment of grasses, use of natural and/or synthetic soil binders (i.e., tackifiers and soil stabilizers), straw wattle installation at regular intervals across each parcel and around parcel perimeters, and berm construction around the perimeter of each parcel to prevent off-site soil migration. Site monitoring shall be completed every six months and after rainfall events of 1.0 inch or greater to ensure that soil stabilization methods are continuing to be effective. In the event that erosion is observed during monitoring, corrective actions shall be taken immediately to prevent additional erosion. The Interim Soil Stabilization Plan shall be implemented and funded under the supervision of the March JPA.	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-HYD-2. Water Quality Management Plan. Consistent with the Master Project Specific Water Quality Management Plan, Master Meridian West Campus Upper Plateau (Appendix K-2) for the Specific Plan Area, prior to issuance of each building permit, a Water Quality Management Plan (WQMP) shall be developed, to the satisfaction of the March JPA, for the development proposed as part of the Meridian West Upper Plateau Specific Plan. In accordance with March JPA's guidance, each WQMP shall meet the requirements of the Riverside County Municipal Separate Storm Sewer System (MS4) Permit, as well as the National Pollutant Discharge Elimination System (NPDES) New Development & Redevelopment Guidelines for Projects Under the March Joint Powers Authority, also known as the March JPA WQMP Guidance Document (March JPA 2008), such that the WQMP shall demonstrate that post-construction low-impact development (LID) best management practices (BMPs) are incorporated into the specific proposed design and that these features would effectively reduce and/or eliminate water pollution caused by runoff flowing from developed sites into nearby receiving waters. Specifically, proprietary biotreatment units (i.e., Modular Wetland Systems) shall be installed downstream of each detention basin, as infiltration is not feasible at the site. The biotreatment units shall be designed to capture and treat stormwater pollutants, consistent with commercial/industrial developments and associated parking lots, and including oil, grease, metals, trash, and debris. Treatment design shall be finalized as each development is proposed within the Specific Plan. Source control BMPs shall be implemented whenever possible. A	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		long-term maintenance and funding plan shall also be approved by the March JPA as part of each WQMP.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
HYD-2. 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?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
HYD-3. 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:			
a. result in substantial erosion or siltation on or off site;	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-HYD-1** above. **MM-HYD-3. Hydrology/Drainage Study.** Consistent with the Preliminary Hydrology Study, for: Meridian Park Upper Plateau (Appendix K-1), prior to issuance of each building permit, a Hydrology/Drainage Report shall be developed to the satisfaction of the March Joint Powers Authority, for the development proposed within the West Campus Upper Plateau Specific Plan. The Hydrology/Drainage Report shall demonstrate with the implementation of design features incorporated into each development that stormwater runoff flow rate, associated with specific lot development, would be less than or equal to existing conditions, to prevent on- and off-site runoff and flooding. The Hydrology/Drainage Report shall comply with the 1978 Riverside County Flood Control and Water Conservation District Hydrology Manual for storm drain planning and design calculations. Based on	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		the Hydrology/Drainage Report, detention basins shall be constructed on individual lots that are sized to accommodate stormwater runoff such that flows do not exceed existing conditions.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-HYD-3** above	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
c. 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	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-HYD-3** above	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
d. impede or redirect flood flows?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
HYD-4. In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to Project inundation?	**Specific Plan Area**	**Specific Plan Area** N/A	**Specific Plan Area** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
	Less than Significant		
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
HYD-5. Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-HYD-1** and **MM-HYD-2** above.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to hydrology and water quality?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-HYD-1** through **MM-HYD-3** above.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.9 Land Use and Planning			
LU-1. 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?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **M-AQ-1** through **MM-AQ-15** and **MM-CUL-1** through **MM-CUL-9**, **MM-GEO-1**, **MM-GEO-2**, **MM-HAZ-1** through **MM-HAZ-3**, **MM-HYD-1** through **MM-HYD-3**, **MM-TRA-1**, **MM-TRA-2**, and **MM-FIRE-1** through **MM-FIRE-3**	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
	Specific Plan Area	**Specific Plan Area** N/A	**Specific Plan Area**

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project result in cumulatively considerable effects related to land use and planning?	Less than Significant		N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.10 Noise			
NOI-1. 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?	**Specific Plan Area** Potentially Significant (Operation) Less than Significant (Construction)	**Specific Plan Area** No feasible mitigation measures available.	**Specific Plan Area** Significant and unavoidable (Operation) Less than Significant (Construction)
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
NOI-2. Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to noise?	**Specific Plan Area**	**Specific Plan Area** No feasible mitigation measures available	**Specific Plan Area** Significant and unavoidable (Operation)

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
	Potentially Significant (Operation) Less than Significant (Construction)		Less than Significant (Construction)
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.12 Population and Housing			
POP-1. 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)?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to population and housing?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
4.13 Public Services			
PUB-1. 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:			
a. Fire protection?	**Specific Plan Area** Less than Significant	**Specific Plan Area** See **MM-FIRE-1**	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
b. Police protection?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
c. Schools?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
d. Parks?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
e. Other public facilities?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to public services?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.14 Recreation			
REC-1. Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
REC-2. 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?	**Specific Plan Area** Less than Significant	**Specific Plan Area** See **MM-AES-1** through **MM-AES-3**, **MM-AQ-1** through **MM-AQ-15**, **MM-BIO-1** through **MM-BIO-0**, **MM-CUL-1** through **MM-CUL-9**, **MM-GEO-1** and **MM-GEO-2**, **MM-HAZ-1** through **MM-HAZ-3**, **MM-HYD-1** through **MM-HYD-3**, **MM-TRA-1** and **MM-TRA-2**, **MM-FIRE-1**	**Specific Plan Area** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to public services?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.15 Transportation			
TRA-1. Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-TRA-1 Construction Traffic Management Plan** Prior to the issuance of building permits, the Project applicant shall develop and implement a March JPA-approved Construction Traffic Management Plan addressing potential construction-related traffic detours and disruptions to ensure that to the extent practical, construction traffic would access the Project site during off-peak hours; and shall include, but not be limited to, the following measures: • Maintain existing access for land uses in proximity of the Project Site throughout construction. • Designate an on-site employee parking area. • Schedule deliveries and pick-ups of construction materials to non-peak travel periods. • Minimize obstruction of through traffic lanes on Alessandro Boulevard and Meridian Parkway. • Construction equipment traffic from the contractors shall be controlled by flagman.	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• Identify designated transport routes for heavy trucks to be used throughout Project construction. • Schedule vehicle movements to ensure that there are no vehicles waiting off site and impeding public traffic flow on the surrounding streets. • Establish requirements for loading/unloading and storage of materials on the Project Site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to adjacent businesses and/or properties. Any travel lane encumbrances shall not occur during peak traffic hours • Coordinate with adjacent or affected businesses and/or properties and emergency service providers to ensure adequate access exists to the Project Site and neighboring sites. • Construction traffic shall be routed to avoid travel through, or proximate to, sensitive land uses. • All construction contractors shall be provided with written information on the Construction Traffic Management Plan along with clear consequences to violators for failure to follow the Plan. • Signage shall be posted on Brown Street and Cactus Avenue with contact information for the project manager for public questions or concerns about construction traffic. A response to comments or inquiries will be provided within 72 hours or receipt. **MM-TRA-2 Traffic Safety Plan for Barton Street.** Prior to the issuance of grading permits, the Project applicant shall develop a Barton Street Traffic Safety Plan to include traffic calming features supplemented with speed activated	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		speed limit signs/warning signs, additional signage, flashing beacons, approved by the March JPA Civil Engineer, in compliance with a three-party memorandum of understanding mitigation executed by the City of Riverside, March JPA, and Meridian Park, LLC. The Project applicant shall implement the Plan and shall install "No Parking" signs along Barton Street to restrict on-street parking. See **MM-AQ-2** through **MM-AQ-15**, **MM-GHG-1** through **MM-GHG-11**	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
TRA-2. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	**Specific Plan Area** Less than Significant	**Specific Plan Area** See **MM-AQ-9** and **MM-GHG-11**	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
TRA-3. 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)?	**Specific Plan Area** Less than Significant	**Specific Plan Area** See **MM-TRA-1** and **MM-TRA-2** above	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to transportation?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.16 Tribal Cultural Resources			
TCR-1. 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. 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)?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-CUL-1** through **MM-CUL-8** above	**Specific Plan Area** Significant and Unavoidable
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-CUL-1** through **MM-CUL-8** above	**Specific Plan Area** Significant and Unavoidable
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
4.17 Utilities and Service Systems			
UTL-1. Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement	**Conservation Easement**	**Conservation Easement**

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
relocation of which could cause significant environmental effects?	No Impact	N/A	N/A
UTL-2. Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
UTL-3. 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?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
UTL-4. Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to utilities and service systems?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
4.18 Wildfire			
FIRE-1. Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?	**Specific Plan Area** Less than Significant	**Specific Plan Area** N/A	**Specific Plan Area** N/A
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
FIRE-2. 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?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** **MM-FIRE-1. Pre-Construction Requirements.** The grading and building permits shall require fuel modification to be implemented and approved by the Riverside County Fire Department (RCFD) prior to bringing combustible materials on-site. Adequate firebreaks at least 50 feet wide shall be created around all grading, site work, and other construction activities in areas where there is flammable vegetation. Existing flammable vegetation shall be reduced by 50% on vacant lots upon commencement of construction. Firebreaks and fuel modification shall be implemented in accordance with Appendix Q, West Campus Upper Plateau Fire Protection Plan, and approved by RCFD. The Project shall comply with the following risk reducing vegetation management guidelines: • All existing above ground power lines shall be removed and all new power lines shall be underground for fire safety. Temporary construction power lines may be approved by RCFD in areas that have been cleared of combustible vegetation. • Erosion or ground (including slope) instability or water runoff due to vegetation removal, vegetation	**Specific Plan Area** Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		management, maintenance, landscaping or irrigation will be avoided. **MM-FIRE-2. Vegetation Management**. Vegetation management (i.e., assessment of the fuel modification zone and fuel modification area's condition and removal of dead and dying and undesirable species; as well as thinning as necessary to maintain specified plant spacing and fuel densities) shall be completed annually by May 1 of each year, and more often as needed for fire safety, as determined by the Riverside County Fire Department. The vegetation management will be funded by the Project and shall be conducted by their contractor(s). The Project shall be responsible for all vegetation management throughout the development, in compliance with the Project Fire Protection Plan (FPP) that establishes requirements for all FMZs (i.e., Zone A, Zone B, Zone C and Roadside). The permanent fuel maintenance zones required for the Project shall be maintained by the applicant during construction, and by the owner of each parcel or a Property Management Association, which will be responsible for vegetation management once the Specific Plan Area is built out. The Owner or Property Management Association will be responsible for vegetation management in perpetuity. On-going/as-needed fuel modification maintenance during the interim period while the Project is built out and adjacent parcels are developed, which may be one or more years, will include necessary measures for consistency with the FPP, including: • Regular Maintenance of dedicated Open Space.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• Removal of undesirable combustible vegetation and replacement of dead or dying landscaping. • Maintaining ground cover at a height not to exceed 18 inches. Annual grasses and weeds shall be maintained at a height not to exceed three inches. • Removing accumulated plant litter and dead wood. Debris and trimmings produced by thinning and pruning should be removed from the Project site or chipped and evenly dispersed in the same area to a maximum depth of four inches. • Maintaining manual and automatic irrigation systems for operational integrity and programming. Effectiveness should be regularly evaluated to avoid over or under-watering. • Complying with FPP requirements on a year-round basis. Annual inspections are conducted following the natural drying of grasses and fine fuels, between the months of May and June, depending on precipitation during the winter and spring months. **MM-FIRE-3. Alternative Materials and Methods.** The Project Applicant/Developer shall ensure that the following requirements shall be placed on the construction contractor's contract specification for lots where compliance with the required Fuel Management Zone (FMZ) protection is achieved through a combination of FMZ and additional construction ignition resistance enhancements: i. Windows on structures facing the open space areas shall include dual panes, with both panes tempered.	

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		ii. Unless the building is a tilt-up structure, exterior walls and doors shall be constructed to a standard of Minimum 1-hour fire rated with one layer of 5/8-inch type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing, from the foundation to the roof, for all exterior walls of each building. iii. Exterior vents shall be ember-resistant (recommend BrandGuard, O'Hagin, or similar vents approved by RCFD). iv. A solid 6-foot-tall wall shall be constructed of concrete masonry units (CMUs) between on-site structures and open space. Proof of compliance shall be provided to the March JPA prior to issuance of a Certificate of Occupancy for any structures that require these additional materials and methods.	
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
FIRE-3. 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?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-FIRE-1** and **MM-FIRE-2** above.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
FIRE-4. In or near a State Responsibility Area or lands classified as very high FHSZ, would the	Potentially Significant	See **MM-HYD-3** above.	Less than Significant

Table 1-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
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?	**Conservation Easement** No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A
Would the Project result in cumulatively considerable effects related to wildfire?	**Specific Plan Area** Potentially Significant	**Specific Plan Area** See **MM-FIRE-1** and **MM-HYD-3** above.	**Specific Plan Area** Less than Significant
	Conservation Easement No Impact	**Conservation Easement** N/A	**Conservation Easement** N/A

1.10 Summary of Project Alternatives

Section 15126.6 of the CEQA Guidelines identifies the parameters within which consideration and discussion of alternatives to the Project should occur. As stated in this section of the CEQA Guidelines, alternatives must focus on those that are reasonably feasible and that attain most of the basic objectives of the Project. Each alternative should be capable of avoiding or substantially lessening any significant impacts of the Project. The rationale for selecting the alternatives to be evaluated and a discussion of the No Project Alternative are also required, per CEQA Section 15126.6.

1.10.1 Alternatives Evaluated

This Draft EIR includes an evaluation of the following alternatives:

- **Alternative 1** – No Project
- **Alternative 2** – Reduced Development Alternative
- **Alternative 3** – Restricted Industrial Building Size Alternative
- **Alternative 4** – Reduced Cultural Resource Impact Alternative

Alternative 1

Under Alternative 1, development of the Project would not occur as discussed in Chapter 3 of this Draft EIR. The Project site would remain unchanged, and no development activity would occur. As a result, the proposed General Plan Amendment, Specific Plan, Zoning Amendment, Tentative Tract Map, two Plot Plans, and a Development Agreement to redevelop the former munitions bunkers of the March AFB would not be necessary, as no new development would occur on the Project site that would trigger such actions. Alternative 1 would have no workforce or vehicle trips compared to the proposed Project. Additionally, the Conservation Easement would not be placed under a conservation easement.

Alternative 2

Under Alternative 2, the Reduced Development Alternative, approximately 45.34 acres of the Project's Business Park (approximately 70% of the Project's total Business Park acreage) would be designated Open Space instead, as shown in Figure 6-1. Under Alternative 2, the seven Business Park parcels to the north (approximately 34.51 acres) and the southern half of the Business Park parcels to the south would not be developed (leaving one Business Park parcel to the south of 10.93 acres). This would result in a reduction of the developable acreage in the Campus Development by approximately 18% and an increase in Open Space by approximately 60% in the Specific Plan Area compared to the proposed Project.

Alternative 3

Under Alternative 3, Restricted Industrial Building Size Alternative, the development of the 56.27-acre Industrial parcel to the north of Building B would be restricted to a minimum of two separate industrial buildings with a maximum floor area ratio (FAR) of 0.40. Under the Project's proposed Specific Plan, the Industrial zone has a maximum FAR of 0.50. Therefore, under the proposed Project, the 56.27-acre Industrial parcel could be developed with a single industrial building totaling 1,225,000 square feet. However, under Alternative 3, a two-building layout on 56.27 acres with a 0.40 FAR would each result in two buildings, each being 490,225 square feet. Therefore,

Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development (approximately 20% of the potential industrial development for the 56.27-acre Industrial parcel).

Alternative 4

Under Alternative 4, Barton Street would be realigned to the east to avoid a known cultural resource site that otherwise would be directly impacted under the proposed Project during construction activities. To avoid this known cultural resource, Alternative 4 would realign the portion of Barton Street that extends north from the emergency access only roadway from Cactus Avenue to the east. Realigning Barton Street to the east would result in Barton Street bisecting the proposed Mixed-Use parcels west of Airman Drive and the Business Park parcel located on the northwest corner of Arclight Drive. Therefore, Alternative 4 would result in a 1.9-acre reduction of Mixed-Use area and a 4.35-acre reduction of Business Park area compared to the proposed Project. Additionally, by realigning this portion of Barton Street, there would an increase of 2.16 acres of Open Space to the west of Barton Street compared to the proposed Project. Alternative 4 would result in a slight reduction in workforce and total trips compared to the proposed Project.

1.10.2 Environmentally Superior Alternative

Table 1-3 provides a summary of the alternatives impact analysis considered in the EIR, identifies the areas of potential environmental effects per CEQA, and ranks each alternative as better, the same, or worse than the Project with respect to each issue area.

Table 1-3. Comparison of Project and Alternatives Impacts

Environmental Topic	Project Impact	Alternative 1 No Project	Alternative 2 Reduced Development Alternative	Alternative 3 Restricted Industrial Building Size Alternative	Alternative 4 Reduced Cultural Resource Impact Alternative
Aesthetics	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	= LTS with Mitigation	▼ LTS with Mitigation
Air Quality	Significant and Unavoidable	▼ No Impact	▼ SUI	▼ SUI	▼ SUI
Biological Resources	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	= LTS with Mitigation	▼ LTS with Mitigation
Cultural Resources	Significant and Unavoidable	▼ No Impact	▼ SUI	= SUI	▼ SUI
Energy	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Geology and Soils	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	= LTS with Mitigation	▼ LTS with Mitigation
Greenhouse Gas Emissions	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation

Table 1-3. Comparison of Project and Alternatives Impacts

Environmental Topic	Project Impact	Alternative 1 No Project	Alternative 2 Reduced Development Alternative	Alternative 3 Restricted Industrial Building Size Alternative	Alternative 4 Reduced Cultural Resource Impact Alternative
Hazards/Hazardous Materials	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Hydrology/Water Quality	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	= LTS with Mitigation	▼ LTS with Mitigation
Land Use/Planning	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Noise	Significant and Unavoidable	▼ No Impact	▼ SUI	▼ SUI	▼ SUI
Population and Housing	Less than Significant	▼ No Impact	▼ LTS	▼ LTS	▼ LTS
Public Services	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Recreation	Less than Significant	▼ No Impact	▼ LTS	▼ LTS	▼ LTS
Transportation	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Tribal Cultural Resources	Significant and Unavoidable	▼ No Impact	▼ SUI	= SUI	▼ SUI
Utilities/Service Systems	Less than Significant	▼ No Impact	▼ LTS	▼ LTS	▼ LTS
Wildfire	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation

Notes: LTS = less than significant.
Green = No Impact or Less than Significant, Yellow = Less than Significant with Mitigation, Red = Significant and Unavoidable
▲ Impacts would be greater than those of the proposed Project.
= Impacts would be comparable to those of the proposed Project
▼ Impacts would be reduced when compared to those of the proposed Project.

As indicated in Table 1-3, Alternative 1, No Project Alternative, would result in the fewest environmental impacts and therefore would be considered the Environmentally Superior Alternative. Pursuant to CEQA Guidelines Section 15126.6(e)(2), if the No Project Alternative is the environmentally superior alterative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Alternative 2, the Reduced Development Alternative, would be the Environmentally Superior Alternative. Alternative 2 reduces the development footprint more than Alternative 3, Restricted Industrial Building Size Alternative, as well as also slightly reduces the development footprint when compared to Alternative 4, Reduced Cultural Resource Impact Alternative, thereby providing a greater reduction in workforce and total vehicle trips. While Alternative 4

would result in fewer impacts to cultural resources by shifting the Barton Street roadway alignment, Alternative 4 would result in more development than Alternative 2 and would therefore result in more impacts overall when compared with Alternative 2. Alternative 2 was found to result in fewer aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire impacts. Alternative 2 would achieve all the Project objectives, but not to the same extent as the Project.

1.11 References Cited

March JPA (Joint Powers Authority). 1999. General Plan of the March Joint Powers Authority.

INTENTIONALLY LEFT BLANK

2 Introduction

2.1 Purpose and Scope

The purpose of this Environmental Impact Report (EIR) is to evaluate and disclose the potential environmental consequences of the proposed West Campus Upper Plateau Project (Project). The proposed Project constitutes a "project" as defined in the California Environmental Quality Act (CEQA) Guidelines Section 15378. The March Joint Powers Authority (JPA) is the lead agency preparing this EIR in accordance with the CEQA statutes (California Public Resources Code Section 21000 et seq.), the California CEQA Guidelines (14 CCR 15000 et seq.) and the March JPA's 2022 Local CEQA Guidelines (March JPA 2022a).

As discussed in detail in Chapter 3, Project Description, of this EIR, the proposed Project includes the proposed buildout of a Specific Plan Area and the establishment of a Conservation Easement in compliance with the Center for Biological Diversity Settlement Agreement (Appendix S). This EIR evaluates implementation of the Specific Plan at a project level. The proposed Specific Plan Area buildout of the Specific Plan as analyzed in this EIR would include the following:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

Buildout of the Specific Plan Area would also include the extension of Cactus Avenue from its existing western terminus through a loop roadway system surrounding the centrally located Industrial parcels. Additionally, Barton Street would be extended from Alessandro Boulevard to the north to connect to Grove Community Drive to the south to provide access to the new park in the western portion of the Specific Plan Area consistent with the City of Riverside General Plan Circulation Element. The Specific Plan Area's loop roadway system would include the construction of Arclight Drive, Airman Drive, Bunker Hill Drive, and Linebacker Drive. The Conservation Easement would provide an additional buffer of at least 300 feet on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area.

2.2 Compliance with CEQA

2.2.1 Format

This chapter of this EIR sets forth the summary requirements of CEQA as required by Section 15123 of the CEQA Guidelines. Chapter 1, Executive Summary, and Chapter 3, Project Description, also comply with CEQA project

description requirements by discussing the Project location, providing a statement of the document's purpose and intended use, and identifying the Project objectives.

Issues identified in the Initial Study prepared for the Project that were found to have no impact or a less than significant impact are provided in Appendix A, Initial Study and Notice of Preparation (NOP), and in Chapter 5, Other CEQA Considerations, of this document. This EIR has been formatted to address the issues found to be potentially significant in the Initial Study. For the issue areas found to be potentially significant in the Initial Study, there is a corresponding EIR section. Each EIR section includes an existing setting discussion that describes the physical environmental conditions within the Project area as they existed at the time the NOP was prepared, in November 2021; these conditions are considered the baseline physical conditions from which the March JPA determines whether an impact is considered to be significant (CEQA Guidelines Section 15125[a]). Section 15125(d) of the CEQA Guidelines requires that an EIR "discuss any inconsistencies between the project and applicable general plans and regional plans," which will be addressed in Section 4.10, Land Use and Planning. Each EIR section identifies thresholds of significance and includes an analysis to determine the amount and degree of impact relative to each significance threshold that is associated with the Project. For all significant environmental impacts, mitigation measures, where feasible, are required in order to minimize significant adverse impacts (CEQA Guidelines Section 15126.4[a][1]).

The analysis of impacts and identification of mitigation measures are derived from technical reports that are included as technical appendices to this EIR and from other informational resources as listed at the end, in the references subsection, within each section of this document.

2.2.2 Environmental Procedures

The basic purposes of CEQA are the following (CEQA Guidelines Section 15002):

1. Inform governmental decisionmakers and the public about the potential significant environmental effects of proposed activities;
2. Identify the ways that environmental damage can be avoided or significantly reduced;
3. Prevent significant, unavoidable damage to the environment by requiring changes in the project through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The EIR process typically consists of three parts: (1) the NOP (including the Initial Study), (2) the Draft EIR, and (3) the Final EIR. Pursuant to Section 15063 of the CEQA Guidelines, the March JPA prepared an Initial Study (Environmental Checklist) for the Project in order to determine if the Project would have a significant effect on the environment. The NOP was intended to encourage interagency communication concerning the proposed action and provide sufficient background information about the proposed action so that agencies, organizations, and individuals could respond with specific comments and questions on the scope and content of the EIR. Based upon the analysis contained in the Initial Study/NOP, the March JPA concluded that an EIR should be prepared. The NOP for the EIR and a description of potential adverse impacts were distributed to the State Clearinghouse, responsible agencies, and other interested parties on Friday, November 19, 2021. Pursuant to Section 15082 of the CEQA Guidelines, recipients of the NOP were requested to provide responses within 30 days after their receipt of the NOP. During the 30-day public review period of the NOP, March JPA held a Scoping Meeting on December 8, 2021, to gather additional public input on the Project. Copies of the NOP (including the Initial Study) and the NOP distribution

list are provided in Appendix A. All comments received during the NOP public notice period were considered during the preparation of this EIR. Written comments received on the NOP are included in Appendix A of this EIR.

Based on the scope of analysis for this EIR, including comments received during the NOP public scoping period, the following issues were determined to be potentially significant and are therefore addressed in Chapter 4, Environmental Impact Analysis, of this document:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Other potential environmental impact areas, such as agriculture/forestry and mineral resources, were not found to be significant based on the results of the Initial Study. These issues are addressed in Section 5.2, Effects Found Not To Be Significant, of this EIR.

As the lead agency for the Project, the March JPA has assumed responsibility for preparing this EIR. The decision to consider the Project is within the purview of the March Joint Powers Commission. The March JPA will use the information included in this EIR to consider potential impacts to the physical environment associated with the Project when considering approval of the Project. As set forth in Section 15021 of the CEQA Guidelines, the March JPA, as lead agency, has the duty to avoid or minimize environmental damage where feasible. Furthermore, Section 15021(d) states that:

> CEQA recognizes that in determining whether and how a Project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in Section 15093 to reflect the ultimate balancing of competing public objectives when the agency decides to approve a Project that will cause one or more significant effects on the environment.

In accordance with CEQA, the lead agency will be required to make findings for each environmental impact of the Project that cannot be mitigated to a less-than-significant level. If the lead agency determines that the benefits of the Project outweigh significant environmental effects that cannot be mitigated to a less-than-significant level, the agency will be required to adopt a statement of overriding considerations stating the reasons supporting its action notwithstanding the Project's significant environmental effects.

The EIR will be made available for review to agencies and the public for 45 days to provide comments 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" (CEQA Guidelines Section 15204[a]).

2.2.3 Incorporated by Reference

The General Plan of the March Joint Powers Authority (March JPA 1999a), the Master Environmental Impact Report for the March Joint Powers Authority (March JPA 1999b), the March ARB/Inland Port Airport Land Use Compatibility Plan (Mead & Hunt 2014), and other references were reviewed in order to assist environmental review of the Project. These aforementioned documents are incorporated by reference (CEQA Guidelines 15150) and are available for review at the March JPA, 14205 Meridian Parkway, Suite 140, Riverside, California 92518. Additionally, these documents can be viewed on or downloaded from the March JPA's website at https://marchjpa.com/mjpa-meridian-west-campus/.

2.2.4 NOP Comments and Scoping Meeting

The NOP for the Project was published on November 19, 2021, which will thus be the environmental baseline for the Project. Currently, existing development within the site consists of a water tower, asphalt paved and dirt access roads, seven buildings in various states of abandonment, chain-link fencing, and 16 bunkers that were previously used for munitions storage by the Air Force. All of the bunkers are currently used by Pyro Spectaculars Inc. for the storage of fireworks. The remainder of the Project site is generally unoccupied; however, existing trails are used by the public for recreational use consistent with the terms of the 2012 Settlement Agreement. The public review period for the Initial Study/NOP began on November 19, 2021, and ended on December 20, 2021. A number of agencies and organizations commented on the Initial Study/NOP, and those comments can be found in Appendix A. During the 30-day public review period of the NOP, March JPA held a Scoping Meeting on December 8, 2021. Discussion at the December 8, 2021, Scoping Meeting included concerns regarding transportation and traffic impacts on surrounding roadways. Comments raised in comment letters during the 30-day scoping period are summarized in Table 2-1.

Table 2-1. NOP Comments

Commenter	Date	Comments
Riverside County Airport Land Use Commission	11/23/2021	• The Project site is located within Zones B1, B2, C1, and C2 of the March AIA, and review by ALUC is required • Need to complete Application for Major Land Use Action Review
South Coast Air Quality Management District	12/07/2021	• Construction and operational air quality analysis needed • Consider performing a mobile source health risk assessment • Incorporate mitigation measures as necessary
City of Riverside, Community Development Department	12/20/2021	• Mixed use areas should have direct access to Barton Drive • Barton Drive and Cactus Avenue should not intersect • Consider a potential future City of Riverside police station on the Project site • The Traffic Engineering Division would like to review the Project's Traffic Impact Analysis Study • Consider including trails in recreational and open space areas • Indicate when the 10-acre park would be developed • Request for a Fire Fuel Management Plan
United States Air Force	12/20/2021	• Former landfill area will remain undeveloped by the Project • An unexploded ordinance (UXO) survey and clearance should be conducted

Table 2-1. NOP Comments

Commenter	Date	Comments
City of Moreno Valley	12/17/2021	• EIR needs to address cumulative impacts upon City of Moreno Valley • The City would like to review the Traffic Study Scoping Agreement as well as the Traffic Study
Riverside County Flood Control and Water Conservation District	12/09/2021	• The District has not reviewed the proposed Project in detail • The Project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed • An encroachment permit should be obtained for any construction related activities occurring within District right-of-way or facilities, namely the March Business Center Storm Drain and Detention Basin
CARE CA	12/20/2021	• Each Project component should have its own specific CEQA review, mitigation measures, and certification • Ensure an accurate and adequate Project Description is included in the EIR • How much Industrial use would be developed, in total • Air quality analyses and mitigation measures needed
Riverside County Department of Waste Resources	12/21/2021	• Buildout of the Project may have the potential to increase the amount of waste that could adversely affect solid waste facilities. Draft EIR should assess this • Consider measures to reduce waste at the Project site
Riverside County Flood Control and Water Conservation District	12/21/2021	• The EIR should evaluate and address any potential impacts to existing and planned Perris Valley Master Drainage Plan facilities and/or District owned properties • Consider impacts associated with long-term operations and maintenance of facilities if the District will ultimately provide these services • Please list the District as a CEQA Responsible Agency in the EIR if an encroachment permit may be required • The Project is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), under which the District is a Permittee to the plan
Southwest Carpenters	12/20/2021	• Additional community benefits should be incorporated into the Project • Local hire and skilled and trained workforce requirements should be incorporated into the Project • An EIR should be prepared in compliance with CEQA
CALFIRE/Riverside County Fire Department	12/17/2021	• Station 11 is owned and maintained by the City of Riverside • Does the JPA have a site set aside for a future fire station

Source: March JPA 2022b.

None of the comments received change the issue areas that the Initial Study determined would be discussed in the EIR. All of the issues and concerns raised in the comments have been fully addressed and analyzed in the EIR.

2.3 References Cited

March JPA (Joint Powers Authority). 1999a. *General Plan of the March Joint Powers Authority*.

March JPA. 1999b. *Master Environmental Impact Report for the General Plan of the March Joint Powers Authority*. Final. SCH No. 97071095. September 1999.

March JPA. 2022a. CEQA Guidelines 2022: Local Guidelines for Implementing the California Environmental Quality Act. Accessed October 1, 2021. https://www.marchjpa.com/documents/docs_forms/2022_CEQA_GUIDELINES.pdf

March JPA. 2022b. West Campus Upper Plateau Specific Plan No. 9. Prepared by T&B Planning, Inc. June 2022.

Mead & Hunt. 2014. March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, Volumes I and II. Prepared for the Riverside County Airport Land Use Commission. Santa Rosa, California: Mead & Hunt. November 13, 2014. Accessed October 1, 2021. http://www.rcaluc.org/Plans/New-Compatibility-Plan

3 Project Description

This chapter describes the objectives of the proposed West Campus Upper Plateau Project (Project) and Environmental Impact Report (EIR) and provides a detailed description of Project characteristics. This chapter also discusses the discretionary actions required and includes a brief description of the environmental effects, which are evaluated in Chapter 4, Environmental Impact Analysis, through Chapter 6, Alternatives, of this EIR.

3.1 Project Location

The proposed Project site includes the Specific Plan Area and the Conservation Easement, as described in greater detail in Section 3.5, Proposed Project. The Project site comprises approximately 818 acres within the March Joint Powers Authority (JPA) planning area, located approximately half a mile west of Interstate (I) 215. The approximately 818-acre area is comprised of 370 acres for the Specific Plan Area, 3 acres for an existing public facility, and 445 acres for the Conservation Easement. More specifically, the Project site is in the western portion of the March JPA planning area, west of Cactus Avenue's current terminus, to the east and south of the Mission Grove neighborhood, and to the north of the Orangecrest neighborhood in the City of Riverside, California (Figure 3-1, Project Location). The Specific Plan Area would include the extensions of Cactus Avenue, Brown Street, and Barton Street. The latitude and longitude of the approximate center of the Project site is 33.906375″ north and −117.305077″ west. The Project site is in Township 3 South, Range 4 West, including Sections 15, 16, 17, 20, 21, 22 within the Riverside East 7.5-minute quadrangle, as mapped by the U.S. Geological Survey. The Specific Plan Area is located within the following 13 Assessor's Parcel Numbers: 276-120-001, 276-170-007, 294-020-001, 297-080-003, 297-080-004, 297-090-001, 297-090-002/-003/-004/-007/-008/-009, and 297-100-093. The Conservation Easement is located within the following 19 Assessor's Parcel Numbers: 276-120-001, 276-170-007, 294-020-001/-002, 294-040-031/-038, 297-080-002/-003/-004/-005, 297-090-002/-003/-004/-005/-006/-007/-008/-009, and 297-110-036.

Existing development within the Project site consists of a non-operational water tower, an existing Eastern Municipal Water District (EMWD) water tank, paved and dirt access roads, and 16 bunkers and related structures that were previously used for munitions storage by the Air Force prior to March AFB's realignment in 1993. All of the bunkers are currently used by Pyro Spectaculars Inc. for the storage of fireworks. While the Specific Plan Area primarily encompasses existing development and previously disturbed land, the Conservation Easement primarily consists of open space and undeveloped land.

The Project site is surrounded by residential uses to the north, west, and south; the Meridian West Campus Lower Plateau development area, located within the March JPA planning area, to the east; and two new industrial buildings built by Exeter, located in Riverside County, to the east and north. The residential uses to the north are located within Riverside County. The residential uses to the northwest and west are part of the Mission Grove neighborhood in the City of Riverside. The residential uses to the south are part of the Orangecrest neighborhood in the City of Riverside. The closest schools to the Project site, Benjamin Franklin Elementary School and Amelia Earhart Middle School, are located south of the Project site in the Orangecrest neighborhood. The Benjamin Franklin Elementary School is located approximately 3,064 feet south of the Specific Plan Area and the Amelia Earhart Middle School is located approximately 3,315 feet south of the Project site. Additionally, Grove Community Church Preschool is located on the Grove Community Church campus, which is approximately one-quarter mile south of the Specific Plan Area.

The parcels immediately to the east of the Project site are designated as Business Park (BP) and Industrial (IND). The parcels immediately to the north, west, and south of the Project site are not part of the March JPA planning area. The nearest residential area is located approximately 300 feet north of the Specific Plan Area.

As shown on Figure 3-2, March JPA General Plan Existing and Proposed Land Use Designations, the Project site is designated as Business Park (BP), Industrial and Park/Recreation/Open Space (P/R/OS). The Project site has not been assigned a zoning designation per the official March JPA Zoning Map, as shown on Figure 3-3, March JPA Zoning Designations.

3.2 Project Background

In 1993, the federal government, through the Defense Base Closure and Realignment Commission, mandated the realignment of March Air Force Base (AFB) and a substantial reduction in its military use. In April 1996, March AFB was redesignated as an Air Reserve Base (ARB). The decision to realign March AFB resulted in approximately 4,400 acres of property and facilities being declared surplus and available for disposal actions. To oversee the dispensation and management of the surplus land, the cities of Moreno Valley, Perris, and Riverside, and the County of Riverside formed the March JPA in 1993, which continues to serve as the reuse authority of March ARB.

In March 1997, March JPA assumed land use control for all surplus property identified and began preparation of a General Plan for the planning area. In 1999, March JPA approved the March JPA General Plan and Master EIR (State Clearinghouse No. 97071095) for the March JPA planning area, which includes March ARB. The General Plan now serves as the land use and development guidance document for development within the March JPA planning area.

The Project site has been analyzed under both CEQA and NEPA in the following documents:

- March Air Force Base Master Reuse Plan, March JPA (October 2, 1996)
- Final Environmental Impact Statement: Disposal of Portions of March Air Force Base (February 1996)
- Final Environmental Impact Report for the March Air Force Base Redevelopment Project (June 1996)
- Redevelopment Plan for the March Air Force Base Redevelopment Project (July 1996)
- March Joint Powers Authority Development Code (July 1997)
- General Plan of the March Joint Powers Authority (September 1999)
- Master Environmental Impact Report for the General Plan of the March Joint Powers Authority (September 1999)
- Final Air Installations Compatible Use Zone Study, March Air Reserve Base (2018)

As stated previously, the Project site is designated as Business Park (BP), Industrial (I) and Park/Recreation/Open Space (P/R/OS) under the existing General Plan Land Use Map (see Figure 3-2). Meridian Park LLC is now pursuing development of the site with Specific Plan, Parks/Recreation/Open Space and Public Facility General Plan land use designations. The application also includes amendments to the General Plan Transportation Element to identify the completion of Cactus Avenue, Barton Street and Brown Street within the Project.

On September 12, 2012, a Settlement Agreement was entered between and among the Center for Biological Diversity (CBD), the San Bernardino Valley Audubon Society, March JPA, and LNR Riverside LLC as the complete settlement of the claims and actions raised in *Center for Biological Diversity v. Jim Bartel, et al*. (Appendix S). The CBD Settlement Agreement contemplated the division of western acreage under the jurisdiction of the March JPA, including the Project site, into a conservation area, developable area, and a water quality/open space area (see

Figure 3-4, CBD Settlement Agreement). The CBD Settlement Agreement covers more acreage than is included in the Project site.

The analysis in this EIR addresses the following two components of the proposed Project: the proposed buildout of the Specific Plan Area as allowed in the Specific Plan and the placement of the Conservation Easement under a conservation easement pursuant to, and consistent with, the CBD Settlement Agreement (Appendix S).

3.3 Project Objectives

The proposed Project requests a General Plan Amendment, Specific Plan, Zone Change, Tentative Parcel Map, two Plot Plans, an Amendment to the Disposition and Development Agreement, and a Development Agreement to redevelop the former munitions bunkers and adjacent land from the March AFB. The primary objectives of the Project include the following:

- Provide increased job opportunities for local residents through the provision of employment-generating businesses.
- Provide open space amenities to serve the region.
- Provide an active park consistent with the 2009 Safety Study prepared by March JPA.
- Complete the buildout of the roadway infrastructure by extending Cactus Avenue to the Specific Plan Area from its existing terminus, extending Barton Street from Alessandro Boulevard to Grove Community Drive, and extending Brown Street from Alessandro Boulevard to Cactus Avenue.
- Remove and redevelop a majority of the former munitions storage area of the March AFB.
- Encourage the use of alternative modes of transportation through the provision of a pedestrian and bicycle circulation system that is safe, convenient, and comfortable.
- Implement the terms and conditions agreed upon in the September 12, 2012, Settlement Agreement entered into between and among the CBD, the San Bernardino Valley Audubon Society, March JPA, and LNR Riverside LLC, as the complete settlement of the claims and actions raised in *Center for Biological Diversity v. Jim Bartel, et al*. to preserve open space through establishing a Conservation Easement.

3.4 Existing Conditions

Existing development within the Project site consists of a non-operational water tower, asphalt paved and dirt access roads, seven buildings in various states of abandonment, chain-link fencing, and 16 bunkers that were previously used for munitions storage by the Air Force. All of the bunkers are currently used by Pyro Spectaculars Inc. for the storage of fireworks. The remainder of the Project site is generally unoccupied. While the Specific Plan Area primarily encompasses existing development and previously disturbed land, the Conservation Easement primarily consists of open space and undeveloped land. The CBD Settlement Agreement identified publicly accessible trails in areas of the Project site that would be within the Conservation Easement (Appendix S). This area has been utilized by the public for passive recreation for more than 10 years.

3.5 Proposed Project

The following terminology is used throughout this EIR to discuss the Project, Project impacts, and impacts of various components of the Project:

- **Specific Plan Area** = Consists of the Upper Plateau Campus Development, Park, and Infrastructure Improvements.
- **Campus Development** = Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facility parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan.
- **Park** = Proposed park component of the Project, consisting of 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground; multi-use sports fields that could be used for soccer, football, and field hockey; and trails with cardio stops for recreational users.
- **Infrastructure Improvements** = installation of utility and roadway networks connecting to and throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon reclaimed water tank.
- **Conservation Easement** = Approximately 445.43 acres of undisturbed land surrounding the Specific Plan Area, referred to as the Conservation Easement, would be placed under a conservation easement, consistent with prior determinations made as part of the CBD Settlement Agreement (Appendix S).

For analysis purposes in this EIR, the proposed Project consists of two components, pursuant to and consistent with the CBD Settlement Agreement (Appendix S): the Specific Plan Area and the Conservation Easement. Additionally, the existing EMWD water tank located north of the Specific Plan Area would be assigned a General Plan land use designation of Public Facility; no physical changes to this water tank would occur. As such, the specifics for each Project component are shown in Table 3-1 and discussed below.

Table 3-1. Project Components

Land Use	Acreage
Specific Plan Area	
Business Park	65.32
Industrial	143.31
Mixed Use	42.22
Public Facility	2.84
Parks, Recreation, and Open Space	78.00
Streets	37.91
Subtotal	***369.60***
Conservation Easement	
Open Space	445.43
Subtotal	***445.43***

Table 3-1. Project Components

Land Use	Acreage
Existing Eastern Municipal Water District Water Tank	
Public Facility	2.87
Subtotal	*2.87*
Total Project Site	817.90

Source: See Figure 3-5, Site Plan.

3.5.1 Specific Plan Area

Given the land uses planned for the Project area, as outlined in the Specific Plan, this Draft EIR assumes the following buildout of the Specific Plan Area for analysis throughout the EIR. These uses are consistent with the permitted uses shown in Table 3-2.

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facility – 2.84 acres for future sewer lift station and electrical substation (within the Specific Plan Area)

Based on the total acreage and land uses proposed, the Specific Plan Area is anticipated to result in approximately 2,600 employees at buildout[1] (see Draft EIR Section 4.12, Population and Housing, and Appendix O, Water Supply Assessment, for more details).

Table 3-2 lists the permitted, conditionally permitted, ancillary, and prohibited uses per each proposed land use designation of the Specific Plan.

Table 3-2. Land Uses by Land Use Designation

Uses	Business Park[1]	Industrial[2]	Mixed Use	P/R/OS	Public Facility
Industrial					
Bio-Medical Waste Treatment Facility	—	C	—	—	—
Manufacturing - Custom	P	P	C	—	—

[1] Employment buildout is based on estimates provided in the Water Supply Assessment (Appendix O), which states the Specific Plan Area's projected water demand is 382.47 acre-feet per year (AFY). The Specific Plan Area's estimated indoor water demand is 124.33 AFY. This calculation is based on an estimated 60 gallons per employee, per day, and multiplied by 260 working days annually for 2,595 employees. This Draft EIR rounds up to a conservative estimate of 2,600 employees for the Specific Plan Area.

Table 3-2. Land Uses by Land Use Designation

Uses	Business Park[1]	Industrial[2]	Mixed Use	P/R/OS	Public Facility
Manufacturing - Light	P	P	C	—	—
Manufacturing - Medium	P	P	—	—	—
Manufacturing - Heavy	—	—	—	—	—
Newspaper Publishing Plants	P	P	—	—	—
Research and Development	P	P	P	—	—
Trucking/Transportation Terminals	—	—	—	—	—
Storage/Distribution					
Public Storage/Mini-Warehouse (Indoor)	C	C	C	—	—
Business Enterprise	P	P	P	—	—
Warehouse - Medium	—	P	—	—	—
Warehouse - Heavy	—	P	—	—	—
High Cube Transload and Short-Term Storage Warehouse	—	P	—	—	—
High Cube Fulfillment Warehouse	—	P	—	—	—
High Cube Cold Storage Warehouse[3]	—	P	—	—	—
Parcel Delivery Terminal	—	—	—	—	—
Office					
Financial Institutions	P	—	P	—	—
Fire Stations	P	P	P	P	P
Government	P	P	P	—	—
Medical Clinics	P	P	P	—	—
Offices, Business and Professional	P	C	P	—	—
Police Stations and Sub-Stations	P	P	P	P	P
Regional and Corporate Headquarters	P	C	P	—	—
Commercial					
Agricultural Equipment Repair Shops	C	P	—	—	—
Agricultural/Nursery Supplies and Services	C	C	P	—	—
Alcoholic Beverage Outlets	C	C	C	—	—
Animal Care/Pet Hotels	P	P	C	—	—
Assembly and Entertainment	—	—	—	—	—
Automotive Parts and Accessory Sales	—	—	P	—	—
Automotive Fleet Storage	C	C	C	—	—
Automotive Service Stations	—	—	—	—	—
Automotive/Truck Repair - Major	C	P	—	—	—
Automotive/Truck Repair - Minor	P	P	C	—	—
Building and Site Maintenance Services	P	P	P	—	—
Building Contractor's Storage Yard	P	P	C	—	—
Building Material and Equipment Sales	P	—	P	—	—

Table 3-2. Land Uses by Land Use Designation

Uses	Business Park[1]	Industrial[2]	Mixed Use	P/R/OS	Public Facility
Business Supply/Equip Sales/Rentals	C	C	C	—	—
Business Support Services	P	P	P	—	—
Food Catering	C	—	C	—	—
Child Care Facilities	—	—	—	—	—
Churches and Places of Religious Assembly	—	—	—	—	—
Communication Facilities, Antennas and Satellite Dishes	C	C	C	—	—
Consumer goods, Furniture, Appliances, Equipment Sales	C	—	P	—	—
Convenience Sales	C	—	C	—	—
Energy Generation and Distribution Facilities	—	—	—	—	—
Exhibit Halls and Convention Facilities	—	—	—	—	—
Fairgrounds	—	—	—	—	—
Food And Beverage Sales	C	A	C	—	—
Funeral and Mortuary Services	—	—	—	—	—
General Retail Establishments	—	—	P	—	—
Golf Courses, Driving Ranges and Pitch and Putt Courses	—	—	—	—	—
Grocery Stores	—	—	—	—	—
Health Club – Under 5,000 s.f.	C	—	C	—	—
Health Club – Larger than 5,000 s.f.	—	—	—	—	—
Heavy Equipment Sales and Rentals with Outside Merchandising	C	C	C	—	—
Horticulture Nurseries and Greenhouses	C	P	—	—	—
Hospitals, Intermediate Care Facilities and Nursing Facilities	—	—	—	—	—
Hotel/Motel	—	—	—	—	—
Instructional Studios – Under 5,000 s.f.	C	—	C	—	—
Instructional Studios – Larger than 5,000 s.f.	—	—	—	—	—
Interpretive Center	C	--	C	—	—
Laundry Services	P	P	C	—	—
Maintenance and Repair	P	P	P	—	—
Major Transmission, Relay or Communications Switching Stations	P	P	C	—	—
Museums	—	—	—	—	—
Bar and Grill, Microbrewery – Under 5,000 s.f.	—	—	C	—	—

Table 3-2. Land Uses by Land Use Designation

Uses	Business Park[1]	Industrial[2]	Mixed Use	P/R/OS	Public Facility
Open Air Markets for the Sale of Agriculture-related Products and Flowers	C	—	C	C	—
Outdoor Commercial	—	—	C	—	—
Outpatient Medical Clinic	—	—	P	—	—
Parking Facilities as a *Primary Use*	C	C	C	—	—
Personal Services	—	—	P	—	—
Petroleum Products Storage	A	A	—	—	—
Pets and Pet Supplies	—	—	C	—	—
Private Clubs, Lodges and Fraternal Organizations	—	—	—	—	—
Radio and Television Studios	P	P	P	—	—
Recreational Facilities	—	—	—	—	—
Recycling Facilities (Outdoor Storage not to Exceed Building Area)	C	C	C	—	—
Repair Services	P	P	P	—	—
Restaurants (Fast Food)	C	—	C	—	—
Restaurant (Sit Down)	C	—	C	—	—
Social Service Institutions	P	P	P	—	—
Sundries, Pharmaceutical and Convenience Sales	—	—	P	—	—
Trade Schools	—	—	—	—	—
Vehicle, Boat and Trailer Sales	C	—	C	—	—
Vehicle Storage	C	C	C	—	—
Veterinary Clinics and Animal Hospitals	C	—	P	—	—
Other Uses					
Parks and Recreational Facilities (Public)	—	—	—	P	—
Public Utility Stations, Yards, Wells and Similar Facilities, Excluding Offices	—	—	—	P	P

Source: West Campus Upper Plateau Specific Plan
Notes: P = Permitted; C = Conditional Use Permit; A = Ancillary; — = Prohibited.
All uses subject to the density/intensity standards and additional criteria set forth in the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. Certain uses listed in this table may be limited in density/intensity or prohibited as a result of the Compatibility Plan standards. Development within the West Campus Upper Plateau is subject to the March ARB/IP Airport Compatibility Zone Study effect, as updated from time to time.

1 Within the Business Park zone, a use permit is required for uses that provide outdoor storage in excess of 10% of the primary building gross square footage.

2 Within the Industrial zone, a use permit is required for uses that provide outdoor storage. Outdoor storage areas shall not exceed 25% of the total building area.

3 Maximum cumulative Cold Storage building area shall not exceed a maximum building area of 500,000 SF.

Business Park

A total of 65.32 acres would be designated as Business Park. The seven Business Park parcels to the north would total 34.51 acres, the Business Park parcel to the southeast would be 9.14 acres, and the two Business Park

parcels to the south would collectively total 21.67 acres. See Figure 3-5, Site Plan. Access to the Business Park parcels to the north would be via Arclight Drive, access to the Business Park parcel located in the southeast portion of the Specific Plan Area would be via Linebacker Drive, and access to the two southern Business Park parcels would be via Bunker Hill Drive. For buildout scenario analysis throughout this EIR, a total of 1,280,403 SF of Business Park use is assumed and analyzed in this EIR as 75% warehouse use and 25% office and non-warehouse uses. A list of permitted land uses under the Business Park land use designation is provided in Table 3-2.

Industrial

At the center of the proposed Project would be three Industrial parcels, collectively totaling 143.31 acres. The northwest Industrial parcel would be 56.27 acres, the Industrial parcel to the northeast would be 27.49 acres, and the Industrial parcel south of Cactus Avenue would be 59.55 acres, as shown in Figure 3-5. Access to all three Industrial parcels would be via Cactus Avenue with the larger loop road system surrounding the two larger Industrial parcels. A list of permitted land uses under the Industrial land use designation is provided in Table 3-2. For buildout scenario analysis throughout this EIR, a total of 3,062,561 SF of Industrial use is assumed, including 1,250,000 SF for Building B, 587,000 SF for Building C, 500,000 SF of high-cube cold storage warehouse use, and 725,561 SF of Industrial high-cube fulfillment center warehouse use as envisioned within the Specific Plan. Cold storage use within the Campus Development would be limited to a maximum of 500,000 SF of the total Industrial square footage.

Mixed Use

The six Mixed Use parcels would collectively total 42.22 acres, with the parcels separately being 5.75 acres, 5.45 acres, 9.26 acres, 9.12 acres, 7.84 acres, and 4.80 acres. Five parcels would be located along the west side of the Specific Plan Area, just east of the Barton Street extension and west of Airman Drive. These Mixed Use parcels would not have access to, or be accessible from, Barton Street. The smallest parcel would be located along the southeast corner of the Specific Plan Area where Bunker Hill Drive intersects with Linebacker Drive, as shown in Figure 3-5. For buildout scenario analysis throughout this EIR, a total of 643,686 SF of Mixed Use is assumed: 25% as retail and non-warehouse uses totaling 160,921 SF, 75% as business park uses totaling 482,765 SF. A list of permitted land uses under the Mixed Use land use designation is provided in Table 3-2.

Public Facility

Two Public Facility parcels, collectively totaling 2.84 acres, would consist of a 1.74-acre WMWD sewer lift station to be developed along the southeast side of the Specific Plan Area just south of Cactus Avenue and a 1.10-acre utility facility (electrical substation) to be developed southwest of the WMWD facility. Additionally, a 2.87-acre parcel that is occupied by an EMWD water tank would be designated as Public Facility in order to make the land use designation consistent with the development on the site, but no physical changes or additional development is proposed. A list of permitted land uses under the Public Facility land use designation is provided in Table 3-2.

Sewer Lift Station

To account for additional wastewater generated by the Project, there is the potential that a new Sewer Lift Station could be required. As such, to address the potential future need for the lift station, the EIR evaluates the construction and operation of a new Sewer Lift Station that would be operated by WMWD on a 1.74-acre site in the eastern portion of the Specific Plan Area. The Sewer Lift Station would be immediately east of the 9.14-acre Business Park parcel, south of Building C and Cactus Avenue. Access to the lift station site would be provided via Cactus Avenue. During site grading, wastewater utility lines will be installed to provide connection to the lift station.

Electrical Substation

A new aboveground electrical substation, which would be operated by Southern California Edison, would be constructed on a 1.10-acre parcel in the eastern portion of the Specific Plan Area, east of the southeast corner of the Building B site. Access to the substation would be via a driveway off of Linebacker Drive. Four inches of gravel would be placed above the graded site and up to 10 electrical transformers would be installed on the site. The substation would be surrounded by a block wall to visually shield and restrict public access to the electrical systems and transformers within the substation. The height of the concrete block wall surrounding the substation would be 6 feet. Construction of the substation would occur concurrent with the development of the remainder of the Project site.

Parks, Recreation, and Open Space

The 78 acres of park/recreation/open space would consist of one 60.28-acre parcel west of Barton Street and three smaller parcels buffering the northern and southern portions of the Specific Plan Area, as shown in Figure 3-5. The 60.28-acre parcel would be developed as an Active Park, including a playground, multi-use sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. Access to the park would be via Barton Street. An approximately 11.98-acre parcel would provide a buffer between the seven Business Park parcels to the north and the surrounding Conservation Easement. A 2.40-acre parcel would be located south of Bunker Hill Drive, between the most southwesterly Mixed Use parcel and the two southern Business Park parcels. A 2.38-acre parcel would provide additional buffer along the southern perimeter of the proposed Specific Plan Area from Barton Street to Cactus Avenue. The open space parcels would provide a further buffer for the Conservation Easement and surrounding areas. For buildout scenario analysis throughout this EIR, the 78 acres of park/recreation/open space is analyzed as 42.2 acres of Active Park use (with sports fields) and 35.8 acres of park/open space use, including trails with cardio stops. As a Condition of Approval for this Project, an updated Parks Needs Assessment Report will be prepared to finalize the design and amenities included within the 60.28-acre park. For purposes of the analysis within this EIR, the most intensive park uses are assumed in order to provide a conservative estimate of potential environmental impacts associated with construction and operation of the park.

Circulation and Infrastructure

Roadways and Circulation

Buildout of the Specific Plan Area would also include the extension of Cactus Avenue from its existing western terminus to provide access to the proposed Industrial parcels and the internal roadway system, consisting of Airman Drive on the west, Arclight Drive on the north, Linebacker Drive on the east, and Bunker Hill Drive on the south, as shown in Figure 3-5. Barton Street would also be extended from Alessandro Boulevard to the north to connect to Grove Community Drive to the south, consistent with the Circulation Element of the City of Riverside's General Plan. An emergency vehicle access driveway, with a Knox box-controlled access gate that can only be locked and unlocked by emergency service providers, would be provided at the western terminus of Cactus Avenue to provide an emergency connection to Barton Street. This emergency vehicle access driveway would also serve as a pedestrian and bicyclist connection from Barton Street to Cactus Avenue to provide a linkage to the Specific Plan Area and the Metrolink station to the east of the Project site.

The Specific Plan Area would be accessed through the extension of existing streets that have been planned in the March JPA General Plan. Access to the Specific Plan Area would be provided from the east via Cactus Avenue, which would be extended to the west from its current western terminus through the Specific Plan Area. The new park would be accessed from the north and south by extending Barton Street to connect from Alessandro Boulevard in the north

to Grove Community Drive in the south. Secondary access to the Specific Plan Area would be via Brown Street, which would be extended south to connect from Alessandro Boulevard to the new extension of Cactus Avenue. Truck routes are proposed along Cactus Avenue to I-215, as well as along Linebacker Drive, Arclight Drive, Airman Drive, and Bunker Hill Drive (see Figure 3-6, Proposed Truck Routes), all of which would connect to existing truck routes along Alessandro Boulevard, Meridian Parkway, and Cactus Avenue (east of Meridian Parkway). As shown in Figure 3-6, trucks from the Specific Plan Area would be prohibited along the Barton Street extension. Trucks would also be prohibited from turning left on Brown Street to access Alessandro Boulevard.

Utilities

On-site trenching would occur to connect with existing water, recycled water, wastewater, natural gas, and electrical facilities that are currently stubbed out at the western terminus of Cactus Avenue, and a primary water connection extension from the intersection of Barton St and Grove Community Drive. The proposed development would extend these utilities along Cactus Avenue to the Specific Plan Area (Figures 3-7A(1) through 3-7H, Utility Extensions). Electrical facilities, fiber optic, and CATV would also provide looped connections to both ends of the Barton Road extension. In addition, buildout of the Specific Plan Area would require the relocation of several existing on-site utilities, including a 30-inch gas line, owned and operated by the Southern California Gas Company (SoCal Gas), that traverses the Project site. As part of grading activities for the Specific Plan Area, the alignment of the gas line would be adjusted to be consistent with the grading activities completed at the Project site. SoCal Gas will be responsible for carrying out the pipeline improvements; however, this EIR will provide the environmental review and clearance for SoCal Gas to proceed with the adjustment of the grade of the gas line to the proposed finished grading surface.

Additionally, the existing recycled/reclaimed water line, which is located along Meridian Parkway and Cactus Avenue, would be extended to the west along Cactus Avenue to provide recycled water to the Specific Plan Area and connected to a new reclaimed water tank, located off site and adjacent to an existing WMWD domestic water tank in the Orange Terrace community south of the Specific Plan Area. The tank site is located south of the Project site and accessed from Grove Community Drive. The new tank would consist of an aboveground 0.5 million gallon prefabricated, bolted steel tank. As shown in Figure 3-7C, the new tank would be connected to an existing reclaimed water line running along Grove Community Drive, and a new line would also be installed along the southern boundary of the Project Site, traveling west to connect to Barton Street, and traveling north to connect with the Specific Plan Area. Construction would occur beginning in 2023 and would involve grading, pouring a concrete pad, assembling the tank, and utility line connections to provide the reclaimed water to the Project site. Water service (domestic and fire) and sewer service would also be provided by WMWD and utility lines to provide service throughout the site would be installed during the grading activities at the Specific Plan Area.

Landscaping

Buildout of the proposed Specific Plan Area would include perimeter landscaping consisting of a minimum 30-foot-wide landscape buffer along the northern, western, and southern Specific Plan Area boundaries maintained by a Landscape Lighting and Maintenance District. As such, implementation of landscape design guidelines would not be within the proposed Conservation Easement. In addition, perimeter slopes and street parkways would be maintained by the Landscape Lighting and Maintenance District. All landscape planting would be drought tolerant and irrigated by recycled water. Streetscape landscaping is proposed for all streets within the Specific Plan Area, presenting a combination of evergreen and deciduous trees, low shrubs, and masses of groundcovers. The plant palette for the proposed Project would include colorful shrubs and groundcovers, ornamental grasses and succulents, and evergreen and deciduous trees that are commonly used throughout Southern California and the Inland Empire region. A list of plant materials approved for use in the Specific Plan is provided for in Appendix B,

Landscape Plant Palette, of the Specific Plan. Additionally, the Landscape Plant Palette would comply with the Multiple Species Habitat Plan and will not include any listed invasive species.

3.5.2 Project Design Features

The following Project Design Features (PDFs) have been incorporated into the Project and analysis throughout this EIR.

Aesthetics

PDF-AES-1 Development shall comply with the Specific Plan Design Standards which dictate building heights, setbacks, color pallets and materials intended to minimize visual obstructions and maximize visual compatibility.

PDF-AES-2 All exterior lighting shall minimize glare and "spill over" light onto public streets, adjacent properties, and Conservation Easement by using downward- directed lights and/or cutoff devises on outdoor lighting fixtures, including spotlights, floodlights, electrical reflectors, and other means of illumination for signs, structures, parking, loading, unloading, and similar areas. Where desired, illuminate trees and other landscape features by concealed uplight fixtures (on- and off-site).

PDF-AES-3 Limit light spillover or trespass to one-half foot-candle or less, measured at the property line for development adjacent to the Conservation Easement (off-site). This shall be confirmed through point-by-point photometric study.

PDF-AES-4 Limit light spillover or trespass to one-half foot-candle or less, measured from within five feet of any adjacent property line for development adjacent to nonresidential uses (on-site). This shall be confirmed through point-by-point photometric study.

PDF-AES-5 Lighting fixtures shall have a similar design, materials, fixture color, and light color. Use of LED lighting shall be required for parking lot lighting; parking lot lighting shall be within 100 Kelvin of 2700 Kelvin; other lighting techniques for accent lighting shall be allowed (on- and off-site).

PDF-AES-6 Lights shall be unbreakable plastic, recessed, or otherwise designed to reduce the problems associated with damage and replacement of fixtures (on- and off-site).

PDF-AES-7 Neon and similar types of lighting are prohibited in all areas with the Specific Plan Area (on-site).

PDF-AES-8 Locate all electrical meter pedestals and light switch/control equipment in areas with minimum public visibility or screen them with appropriate plan materials (on- and off-site).

PDF-AES-9 Illuminate parking lots, loading dock areas, pedestrian walkways, building entrances, and public sidewalks to the level necessary for building operation and security reasons. Dimmers and motion detectors are permitted (on-site).

PDF-AES-10 Along sidewalks and walkways, the use of low mounted fixtures (ground or bollard height), which reinforce the pedestrian-scaled, are encouraged (on-site).

PDF-AES-11 Use exterior lights to accent entrances, plazas, activity areas, and special features (on-site).

PDF-AES-12 High-Pressure (HPS) light fixtures are prohibited for site lighting (on-site).

PDF-AES-13 Lighting is prohibited that could be mistaken for airport lighting or that would create glare in the eyes of pilots of aircraft using the nearby March Air Reserve Base (on-site).

PDF-AES-14 All exterior on-site light fixtures shall be fully shielded with no light emitted above the horizon (on-site).

PDF-AES-15 Maximum on-site lighting wattage is 750 (on- and off-site).

PDF-AES-16 Maximum height of on-site exterior lighting for buildings is 25 feet; sports fields lighting may have a maximum height of 50 feet and shall be located no closer than 450 feet from residences (on-site).

Air Quality

PDF-AQ-1 Offroad equipment used during construction shall meet CARB Tier 4 Final emission standards or better.

PDF-AQ-2 **Construction Budget**. To ensure construction activities occur within the assumptions utilized in the Air Quality Impact Analysis (AQIA) (Appendix C-1) and disclosed in the EIR, the following shall be implemented:

- During each Phase of Project construction, the operating hours of construction equipment on site shall not exceed the assumptions set forth in Table 5-2 of the AQIA. In the event alternate equipment is required, the applicant shall provide documentation demonstrating equivalent or reduced emissions based on horsepower and hours of operation. The construction contractor shall submit a construction equipment hours log to the March JPA every 2 weeks to ensure compliance.
- During Phase 1, areas of active ground disturbance shall not exceed a maximum of 20 acres per day for Mass Grading and 20 acres per day for Blasting & Rock Handling. During Phase 2, the area of active ground disturbance shall not exceed a maximum of 20 acres per day for Remedial Grading. The construction contractor shall submit a grading log to the March JPA every two weeks documenting acreage graded or equivalent cubic yardage to ensure compliance. "Active disturbance" does not include moving of equipment from staging area(s) to grading areas.

PDF-AQ-3 **Future Site Plans**. All Specific Plan Area site plans shall include documentation confirming the site plan's environmental impacts do not exceed the impacts identified and disclosed in this EIR. Absent such documentation, additional environmental review shall be required.

PDF-AQ-4 **No Natural Gas Use**. Specific Plan Area development shall not utilize natural gas. In the event a future structure requires access to any available natural gas infrastructure, additional environmental review shall be required.

Cultural Resources

PDF-CUL-1 Two Weapons Storage Area igloos will be retained on the Project site. These igloos will remain visually accessible to the public and signage will be incorporated to share the historical nature and use of these facilities as part of the former March Air Force Base.

Greenhouse Gas Emissions

PDF-GHG-1 Conduit shall be installed in truck courts in logical locations that would allow for the future installation of charging stations for electric trucks, in anticipation of this technology becoming available.

Hazards and Hazardous Materials

PDF-HAZ-1 As required by the Riverside County Airport Land Use Compatibility Plan (ALUCP), as detailed plans become available, they will be reviewed for consistency with the Riverside County ALUCP. In addition, the following conditions as a result of ALUC Development Review (File No. ZAP1515MA22, Appendix L) shall apply:

- Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.
- A "Notice of Airport in Vicinity" shall be provided to all prospective purchasers and occupants of the property, and be recorded as a deed notice. A copy of this notice is attached to the conditions for ALUC Development Review (File No. ZAP1515MA22).
- The Project has been conditioned to utilized underground detention systems, which shall not contain surface water or attract wildlife. Any proposed stormwater basins or facilities shall be designed and maintained to provide for a maximum 48-hour detention period following the design storm and remain totally dry between rainfalls. Vegetation in and around the basins that would provide food or cover for birds would be incompatible with airport operations and shall not be utilized in Project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the basin(s) shall not include trees or shrubs that produce seeds, fruits, or berries.

  Landscaping in the detention basin, if not rip-rap, should be in accordance with the guidance provided in ALUC "LANDSCAPING NEAR AIRPORTS" brochure, and the "AIRPORTS, WILDLIFE AND STORMWATER MANAGEMENT" brochure available at RCALUC.ORG which list acceptable plants from Riverside County Landscaping Guide or other alternative landscaping as may be recommended by a qualified wildlife hazard biologist.

  A notice sign shall be permanently affixed to the stormwater basin with the following language: "There is an airport nearby. This stormwater basin is designed to hold stormwater for only 48 hours and not attract birds. Proper maintenance is necessary to avoid bird strikes". The sign will also include the name, telephone number or other contact information of the person or entity responsible to monitor the stormwater basin.
- Temporary construction equipment used during actual construction of the structure(s) shall not exceed the prescribed heights as identified in the aeronautical studies, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.

PDF-HAZ-2 Stormwater management facilities will be designed such that any modifications to open channels or native flow lines do not support potentially hazardous wildlife through the incorporation of vegetation that could provide food, shelter, or nesting habitat for wildlife. Stormwater management facilities will also be consistent with Riverside County ALUCP Condition 4 related to stormwater management facilities and detention basins (see also PDF-HAZ-1).

PDF-HAZ-3 Solid waste that is stored on site for recycling and disposal will be contained in covered receptacles that remain closed at all times.

PDF-HAZ-4 Grading plan standards related to potential ditches, terrace drains, or other minor swales will require that seed mixes used for soil stabilizations are reviewed by a QAWB and revised as necessary to exclude the use of grains or other constituents that may attract potentially hazardous wildlife.

Noise

PDF-NOI-1 **Hours of Construction.** Project construction activities shall not be conducted during the period from 10:00 p.m. on a given day until 6:00 a.m. on the following day. Additionally, outdoor construction and grading activities, including the operation of any tools or equipment associated with construction, drilling, repair, alteration, grading/grubbing or demolition work within 500 feet of the property line of a residential use, shall be prohibited between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday, between 5:00 p.m. and 8:00 a.m. on Saturdays, and at any time on Sunday or a Federal Holiday.

PDF-NOI-2 **Blasting and Drilling Limits**. No blasting shall occur within 1,000 feet of any residence or other sensitive receptor. In the event bedrock material that is not rippable by bull-dozer is encountered within 1,000 feet of any residence or other sensitive receptor, the construction contractor shall utilize expansive epoxy or other non-explosive demolition agent for any necessary removal operations. In addition to the distance limits, any blasting or drilling activities shall not exceed the City construction noise threshold of 75 dBA Leq for City residents or the County's construction noise threshold of 65 dBA Lmax for County residents.

PDF-NOI-3 **Blasting Activities.** All blasting activities shall be designed to meet the regulatory construction noise and vibration thresholds outlined on Table 4.11-7 of this EIR.

Transportation and Traffic

PDF-TRA-1 As part of the Project, the following on-site and site-adjacent roadway improvements will be constructed to accommodate site access.

Airman Drive and Cactus Avenue:

- Install a traffic signal.
- Construct a northbound shared through and -right turn lane (225 feet of storage).
- Construct dual southbound left turn lanes (225-feet of storage) and a through lane.
- Construct a westbound left turn lane (300-feet of storage) and a right turn lane.

Linebacker Drive and Cactus Avenue:

- Install a traffic signal.
- Construct the northbound approach with a left turn lane (200-feet of storage), through lane, and right turn lane (250-feet) with overlap phasing.
- Construct the southbound approach with dual left turn lanes (325-feet of storage) and shared through-right turn lane.

- Construct eastbound approach with one left turn lane (200-feet of storage), one through lane, and one shared through-right turn lane.
- Construct westbound approach with one left turn lane (300-feet of storage), one through lane, and one right turn lane (trap lane, no pocket length).

Brown Street and Cactus Avenue:

- Install a traffic signal.
- Construct the southbound approach with a shared left-right turn lane.
- Construct the eastbound approach with a left turn lane (two-way-left-turn lane) and two through lanes.
- Construct the westbound approach with a through lane and shared through-right turn lane.

Cactus Avenue:

- Construct Cactus Avenue at its ultimate full-section width as a Modified Secondary Highway (98-foot right-of-way, 76-foot curb-to-curb) between Linebacker Drive and the existing terminus west of Meridian Parkway. The right-of-way will accommodate 6-foot sidewalks and 4.5-feet of parkway on both sides along with a 5-foot bike lane, landscaped median and two traveled lanes in each direction. The West Campus Upper Plateau roadway cross-sections are shown on Exhibit 1-5 of the TA.
- Construct Cactus Avenue at its ultimate full-section width as a Modified Industrial Collector (76-foot right-of-way, 54-foot curb-to-curb) west of Linebacker Drive to Airman Drive. The right-of-way will accommodate 5-foot detached sidewalks on both sides along with a 5-foot bike lane and a single traveled lane in each direction (of 16-feet) separated by a 12-foot striped median.
- Construct a gated emergency access only connection between the terminus of Cactus Avenue at Airman Drive and Barton Street.

Barton Street:

- Construct Barton Street at its ultimate full-section width as a Collector (66-foot right-of-way, 40-foot curb-to-curb) from the existing northerly and southerly termini consistent with the City of Riverside's Circulation Element. Once completed, the roadway will provide a connection between the existing Mission Grove community to the north and Orangecrest community to the south. The right-of-way will accommodate 6-foot sidewalks on the east side with 10-foot multipurpose trail and 5-feet of landscape on the other side along with a 5-foot bike lane and a single traveled lane in each direction (of 14.5-feet). The multipurpose trail will only be accommodated for portions of Barton Street adjacent to the open space/parks. Sidewalk improvements will extend to the intersection of Grove Community Drive and Barton Street and bike racks and bike lockers will be provided near the entrance of the Park.

Brown Street:

- Construct Brown Street at its ultimate full-section width as an Industrial Collector (78-foot right-of-way, 56-foot curb-to-curb) between the existing northerly terminus and Cactus Avenue. The

right-of-way will accommodate 6-foot sidewalks on both sides along with a 5-foot bike lane and a single traveled lane in each direction (of 17-feet) separated by a 12-foot striped median.

Internal Streets (Linebacker Drive, Airman Drive, Bunker Hill Drive, and Arclight Drive):

- Construct these roadways at their ultimate full-section width as an Industrial Collector (76-foot right-of-way, 54-foot curb-to-curb). The right-of-way will accommodate 6-foot sidewalks on both sides along with a 5-foot bike lane and a single traveled lane in each direction (of 16-feet) separated by a 12-foot striped median.

PDF-TRA-2 The Project will amend the existing March JPA truck routes along Brown Street to Cactus Avenue, and Cactus Avenue west from Meridian Parkway. Internal Project roadways of Linebacker Drive, Arclight Drive, Bunker Hill Drive, and Airman Drive will also be truck routes. No truck access is permitted along Barton Street.

PDF-TRA-3 **Truck Route Enforcement Program.** To address trucks turning left from Cactus Avenue onto Brown Street or otherwise violating the established truck routes, the Project applicant shall provide the March Joint Powers Authority compensation of $100,000 to fund a truck route enforcement for a period of two years.

PDF-TRA-4 **Payment of Fair Share Cost.** To address operational deficiencies at off-site intersections, the Project shall contribute approximately $321,799 as its fair share towards the improvement measures provided in the Table 1-4, Summary of Improvements and Rough Order of Magnitude Costs, of the TA (Appendix N).

Wildfire

PDF-FIRE-1 The Project shall comply with Chapter 33 of the California Fire Code, which prescribes minimum safeguards for construction, alteration and demolition operations to provide reasonable safety to life and property from fire during construction operations within a fire hazard severity zone.

PDF-FIRE-2 The Project's Fire Protection Plan (FPP) evaluates and identifies the potential fire risk associated with the Project's land uses. The Project shall implement the FPP's recommendations for water supply, fuel modification and defensible space, access, building ignition and fire resistance, and fire protection systems, among other pertinent fire protection criteria, which complies with or exceeds existing code requirements for building in a fire hazard severity zone. The Project shall also comply with the fire safety requirements and standards of the Riverside County Fire Department along with Project-specific measures based on the Project site, its intended use, and its fire environment, as defined and memorialized in the FPP.

As described in the Project's FPP and graphically represented in Figure 6 of Appendix Q, the Fuel Modification Zones would be as follows:

Zone A: Non-Combustible Zone

Zone A extends 5-feet from buildings and structures.

The ember-resistant zone is currently not required by law, but science has proven it to be the most important of all the defensible space zones. This zone includes the area under and around all

attached decks and requires the most stringent wildfire fuel reduction. The ember-resistant zone is designed to keep fire or embers from igniting materials that can spread the fire to Project buildings. The following provides guidance for this zone, which may change based on the regulations developed by the Board of Forestry and Fire Protection.

- Use hardscape like gravel, pavers, concrete and other noncombustible mulch materials. No combustible bark or mulch.
- Remove all dead and dying weeds, grass, plants, shrubs, trees, branches and vegetative debris (leaves, needles, cones, bark, etc.); Check roofs, gutters, stairways, etc.
- Limit plants in this area to low growing, nonwoody, properly watered and maintained plants.
- Relocate firewood and lumber to Zone B.
- Replace combustible fencing, gates, and arbors attach to structures with noncombustible alternatives.
- Consider relocating garbage and recycling containers outside this zone.
- Consider relocating boats, RVs, vehicles and other combustible items outside this zone.

Zone B: Paved/Irrigated Zone

Zone B extends up to 100 feet from buildings and structures.

- Remove all dead plants, grass and weeds (vegetation).
- Remove dead or dry leaves and pine needles from landscaping, roof and rain gutters.
- Remove branches that hang over rooves
- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- Relocate wood piles to Zone B.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks, balconies, and stairs.
- Create a separation between trees, shrubs and items that could catch fire, such as wood piles.

Zone C: Thinning Zone

Zone C extends from Zone B up to 100 feet from buildings and structures

- Cut or mow annual grass down to a maximum height of 4 inches.
- Create horizontal space between shrubs and trees.
- Create vertical space between grass, shrubs and trees.
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.
- All exposed wood piles must have a minimum of 10 feet of clearance, down to bare mineral soil, in all directions.

Fire Access Road Zone

Extends a minimum of 10 feet from the edge of any public or private roadway that may be used as access for fire-fighting apparatus or resources adjacent to open space. Clear and remove

flammable growth for a minimum of 10 feet on each side of the access roads. Additional clearance beyond 10 feet may be required upon inspection.

- Required clearance extends a minimum of 10 feet from the edge of any public or private roadway as well as an unobstructed vertical clearance of 20-feet.
- Landscaping and native plants shall be appropriately spaced and maintained.
- Trees found in Appendix E can be planted, if they are far enough from structures and Fire Department accesses, and do not overhang any structures or access at maturity.

Roadside fuel modification for the Project consists of maintaining ornamental landscapes, including trees, clear of dead and dying plant materials. Roadside fuel modification shall be maintained by the Project.

Undesirable Plants

Certain plants are considered to be undesirable in the landscape due to characteristics that make them highly flammable. These characteristics can be physical (structure promotes ignition or combustible) or chemical (volatile chemicals increase flammability or combustion characteristics). The plants included in the FMZ Undesirable Plan List (refer to Appendix E) are unacceptable from a fire safety standpoint and shall not be planted or allowed to establish opportunistically within the FMZs or landscape areas.

PDF-FIRE-3 March JPA's Landscape, Lighting and Maintenance District shall provide tenants of the West Campus Upper Plateau Specific Plan Area with a proactive educational component disclosing the potential wildfire risk and the FPP's requirements. These educational materials shall include information on maintaining the landscape and structural components according to the appropriate standards and embracing a "Ready, Set, Go" stance on evacuation. All educational materials shall be reviewed and approved by the Riverside County Fire Department**.** The FPP was prepared for the Project in accordance with CFC Title 24, Chapter 49.

3.5.3 Project Construction

As assumed in the technical analyses throughout this EIR, construction is estimated to begin in June 2023 and last for approximately 4.5 years. For construction assumptions throughout the EIR, a 4.5-year construction period is assumed and that the Project site would be fully occupied and operational in the Fall of 2027. The construction schedule utilized in the analysis, shown in Table 3-3, represents a "worst-case" analysis scenario; should construction occur any time after the respective dates given that emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent. The duration of construction activity, as shown in Table 3-3, and associated equipment, as shown in Table 3-4, represent a reasonable approximation of the expected construction fleet as required under CEQA. The duration of construction activity is based on an opening year of 2027.

Table 3-3. Construction Schedule

Phase	Construction Activity	Start Date	End Date	Working Days
Phase 1	Mass Grading/Blasting and Rock Hauling	06/01/2023	03/05/2024	193
Phase 2	Remedial Grading	03/06/2024	06/06/2024	65
	Building Construction (including Off-Sites)	06/07/2024	10/15/2026	600
	Architectural Coating	08/01/2026	10/05/2027	300
	Paving	08/09/2027	10/05/2027	40

Table 3-4. Construction Equipment Assumptions

Phase	Construction Activity	Equipment	Amount	Hours/ Day	Horsepower
Phase 1	Mass Grading	D10 Rip Cats	4	8	670
		D10 Push Cats	4	8	670
		651 Scrapers	16	8	570
		824 Dozer	1	8	425
		631 Water Pulls	3	8	500
		Farm Tractor	1	8	425
		Excavator with Breakers	4	8	400
	Blasting and Rock Hauling	D10 Rip Cats	2	8	670
		980 Loaders	2	8	400
		Rock Trucks	3	8	425
		D9 Cat W/Rock Rake	1	8	600
		Rock Drills	3	8	360
Phase 2	Remedial Grading	D10 Push Cats	2	8	670
		651 Scrapers	8	8	570
		824 Dozer	1	8	425
		631 Water Pulls	3	8	500
		Farm Tractor	1	8	425
		Excavator with Breakers	2	8	400
	Building Construction	Cranes	2	8	231
		Crawler Tractors	3	8	212
		Forklifts	6	8	89
		Generator Sets	2	8	84
		Welders	2	8	46
	Architectural Coating	Air Compressors	2	8	78
	Paving	Pavers	4	8	130
		Paving Equipment	4	8	132
		Rollers	4	8	80

3.5.4 Conservation Easement

Under the CBD Settlement Agreement (Appendix S), March JPA and Master Developer are required to place approximately 649 acres into conservation via easement to be managed for its wildlife habitat value for sensitive species. In 2014, March JPA placed the southern 141.237 acres (located north of Van Buren Boulevard) under a conservation easement currently managed by the Rivers and Lands Conservancy. Under this Project, approximately 445.43 acres of undisturbed land surrounding the Specific Plan Area, referred to as the Conservation Easement, would be placed under a conservation easement, consistent with prior determinations made as part of the CBD Settlement Agreement (Appendix S).[2] The Management Entity for the Conservation Easement would meet the following criteria outlined in the CBD Settlement Agreement:

- The Management Entity has qualifications and experience to work with listed species including appropriate permits for employees and subcontractors under federal and state Endangered Species Acts;
- The Management Entity has a demonstrated background in active wildlife management; and
- The Management Entity has the necessary organizational and fiscal capacity to manage the area in perpetuity.

The Conservation Easement would provide a buffer of at least 300 feet on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. In addition, the Conservation Easement would include two bunkers that would be retained for potential ongoing historical preservation. As previously noted, to further protect the Conservation Easement and the surrounding communities, the Project proposes three open space areas, including an additional 30-foot-wide landscaped buffer on the proposed parcels to the north, west, south, and southeast of the Specific Plan Area. The currently existing service roads and trails are utilized by the public for passive recreation within the Conservation Easement consistent with the terms outlined in the CBD Settlement Agreement (Appendix S). Under the proposed Project, access to these would remain.

3.5.5 California Environmental Quality Act

The baseline for a Project is typically the physical environmental condition that exists in the vicinity of a project when the NOP is published (14 CCR 15125(a)). The NOP for the Project was published on November 19, 2021, which will thus be the environmental baseline for the Project. Currently, existing development within the site consists of a non-operational water tower, dirt, and paved access roads, an existing EMWD water tank and 16 bunkers that were previously used for munitions storage by the Air Force. While the Specific Plan Area contains existing development, the Conservation Easement consists of vacant and undeveloped land, as shown in Figure 3-5.

This EIR was prepared by the March JPA, as the Lead Agency, to inform decision makers and the public of the potential significant environmental effects associated with the Project. This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code, Section 21000 et seq.) and the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines; 14 CCR 15000 et seq.) published by the Public Resources Agency of the State of California.

[2] For informational purposes, in order to provide the minimum 649 acres of conservation area, the Applicant and March JPA identified an additional 87.7 acres of open space available for the dedication of a Conservation Easement located between the Project site's southern boundary and Van Buren Boulevard that was not included in the 2014 open space dedication. This is occurring as a separate action and not part of this Project.

The purpose of this EIR is to focus the discussion on those potential effects on the environment of the Project that the Lead Agency has determined may be significant. In addition, feasible mitigation measures are recommended, when applicable, that could reduce significant environmental impacts or avoid significant environmental impacts.

Full buildout of the Specific Plan Area, as discussed throughout this section of the EIR, is assumed in the analysis herein. As such, this EIR evaluates implementation of the Specific Plan at a project level while development specifics for certain parcels and specifically Building B and Building C are more certain at this time. The remainder of the proposed Project is evaluated with an assumed buildout scenario to represent a conservative maximum buildout to fully characterize environmental impacts associated with Specific Plan implementation.

3.5.6 Requested Approvals and Entitlements

To facilitate Project approval, the following would be required; details for each component are provided below.

General Plan Amendment 21-01

The Project proposes to amend the site's General Plan Land Use designations as follows:

- Increase Parks, Recreation, and Open Space (P/R/OS) from approximately 122 gross acres to 523.43 gross acres.[3]
- Eliminate approximately 622.5 gross acres of Business Park designated property.
- Eliminate approximately 63 gross acres of Industrial designated property.
- Adopt the Meridian West Upper Plateau Specific Plan (SP-9) on approximately 369.60 gross acres, approving a mix of Business Park, Industrial, Mixed Use, Public Facility, Streets, and Open Space land uses.
- Amend the General Plan from Business Park to Public Facility on 2.87 acres to accommodate an existing water storage tank operated by EMWD.

In addition, the approximately 445-acre Conservation Easement will be recorded as a permanent Conservation Easement. The amendment would modify the General Plan Land Use Plan, Table 1-1 (March JPA Planning Build Out); Exhibit 2-1, Transportation Plan; and Exhibit 2-3, Transportation Road Systems (March JPA 1999). The amendment to the Transportation Element of the General Plan will incorporate the following changes:

- Extend Cactus Avenue west to Airman Drive, with a gated emergency vehicle access roadway extending to Barton Street.
- Extend Barton Street from Alessandro Boulevard to Grove Community Drive.
- Extend Brown Street from Alessandro Boulevard to Cactus Avenue.
- Add Arclight Drive, Linebacker Drive, Bunker Hill Drive, and Airman Drive.

Specific Plan 21-01 (SP-9)

The Project proposes adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13 containing development standards, design guidelines, infrastructure master plans, maintenance responsibilities, phasing schedule, and implementation

[3] A total of 8.62 acres within the 453.7 gross acres consists of streets located within the Conservation Easement.

procedures necessary to develop the Project site consistent with the requested General Plan Amendment designations. The proposed Specific Plan will address land uses, zoning, and design guidelines.

The proposed land uses within Specific Plan SP-9 include the following:[4]

- 42.22 acres of Mixed Use
- 65.32 acres of Business Park
- 143.31 acres of Industrial
- 37.91 acres of streets and roadways[5]
- 78 acres of undeveloped Parks/Recreation/Open Space
- 2.84 acres of Public Facility

Total gross acreage = 369.60

Zoning Designation

The Project site, including both the Specific Plan Area and Conservation Easement, has not previously been given a zoning designation; therefore, the Project proposes zoning consistent with the requested Specific Plan designations of Mixed Use (MU), Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facility (PF) for the Specific Plan Area, Parks/Recreation/Open Space (P/R/OS) for the Conservation Easement, and Public Facility for the existing EMWD water tank.

Tentative Parcel Map 38063

Concurrent with the General Plan and Zoning Amendments, the Specific Plan, and the Plot Plans, approval of a Tentative Parcel Map is required for the Specific Plan boundaries. Following the approval of Tentative Parcel Map, a Final Map would become the legal document that identifies developable parcels within the Specific Plan area. See Figure 3-8, Tentative Parcel Map, for more details.

Plot Plans 21-03 and 21-04

Concurrent with the General Plan and Zoning Amendments, the Specific Plan, and the Tentative Parcel Map, plot plan approvals are required to construct an approximately 1,250,000-square-foot industrial building on 59.55 acres at 20133 Cactus Avenue and a 587,000-square-foot industrial building on 27.49 acres at 20600 Cactus Avenue. Plot Plans for each of these proposed buildings are included as Figure 3-9, Plot Plan – Building B, and Figure 3-10, Plot Plan – Building C.

Development Agreement 21-01

Due to the scale and complexity of the proposed Project, a Development Agreement is proposed to vest the Project entitlements and fees, ensure financing of public improvements required by the conditions of approval, and provide certain Community Benefits including compliance with the terms of the CBD Settlement Agreement (Appendix S), and provision of new public benefits, including, but not limited to, expansion of employment opportunities for area

[4] A total of 8.62 acres within the 453.7 gross acres consists of streets located within the Conservation Easement.
[5] Included in this area are 8.62 acres of streets and roadways that are within the Conservation Easement.
[4] Minor changes to the SP/Zoning, involving approximately one acre, have been incorporated since the time of the NOP.

residents. The Development Agreement is proposed between March JPA and Meridian Park LLC with a 15-year term and two potential 5-year extensions.

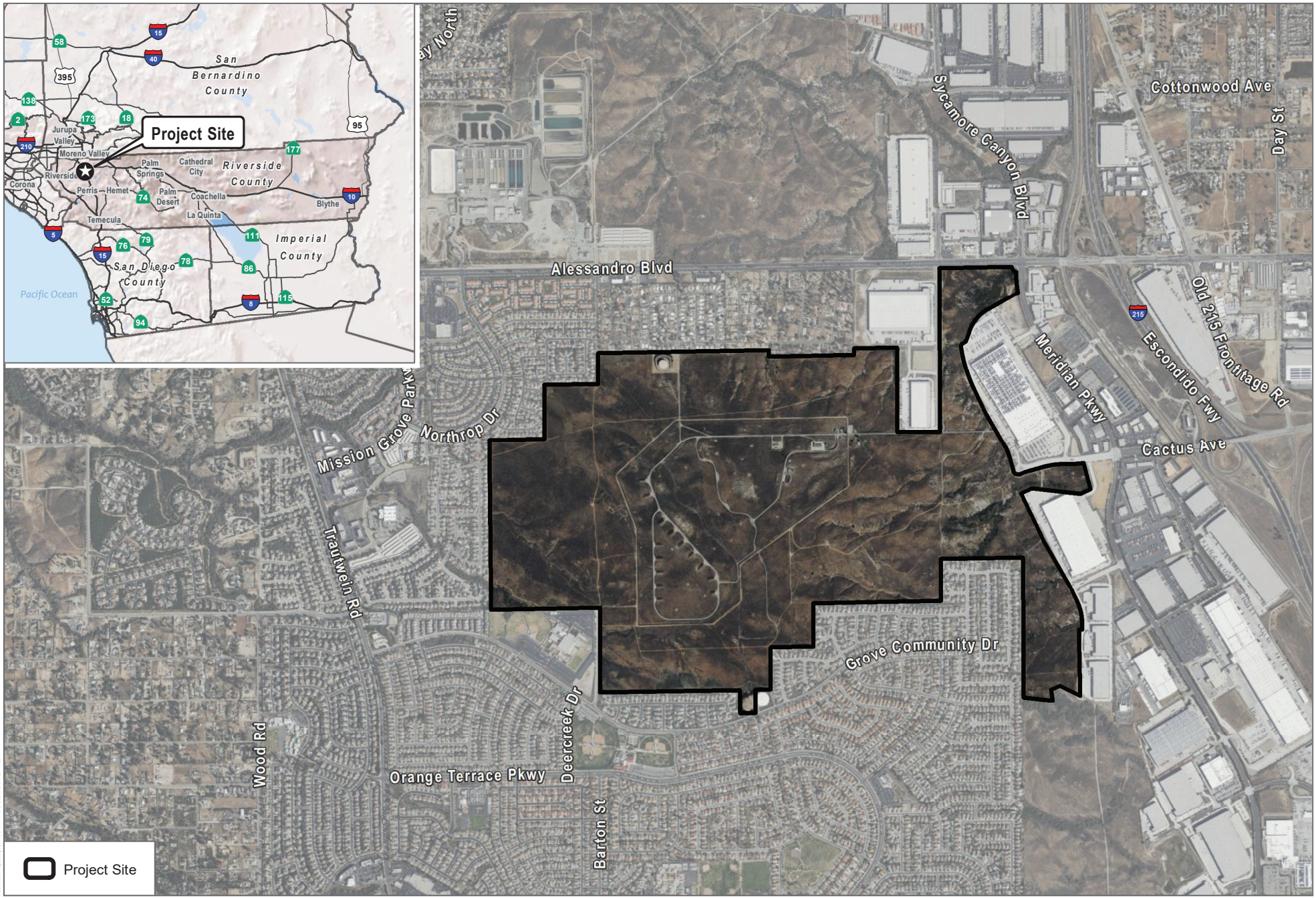
Other Discretionary Approvals

The following additional discretionary permits and approvals *may* be necessary as part of Project approval:

- State Water Resources Control Board (SWRCB) – A National Pollutant Discharge Elimination System Construction General Permit (permit registration documents include a Stormwater Pollution Prevention Plan [SWPPP])
- Regional Water Quality Control Board, Santa Ana Region – 401 Water Quality Certification or a Waste Discharge Requirement Permit from the Regional Water Quality Control Board (401 certification is needed if a U.S. Army Corps of Engineers Section 404 permit is needed)
- U.S. Army Corps of Engineers – A Jurisdictional Determination to identify and locate the boundaries of jurisdictional waters of the United States on the Project site, and, if jurisdictional waters are impacted, a permit pursuant to Section 404 of the Clean Water Act
- California Department of Fish and Wildlife – A 1602 Streambed Alteration Agreement

3.6 References Cited

March JPA (Joint Powers Authority). 1999. *General Plan of the March Joint Powers Authority.*



SOURCE: Bing Maps 2022

DUDEK

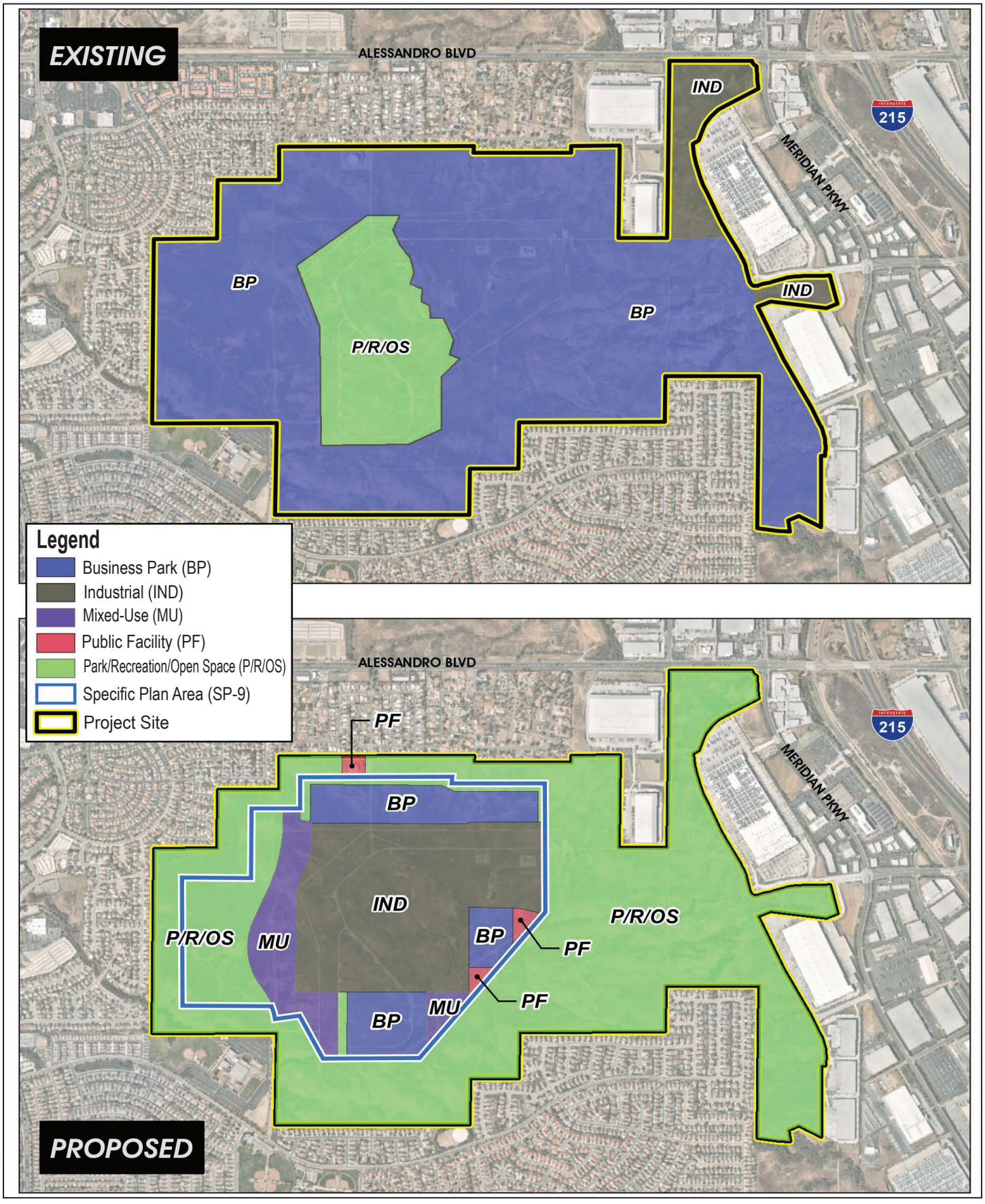
0 1000 2,000 Feet

FIGURE 3-1

Project Location

West Campus Upper Plateau EIR

INTENTIONALLY LEFT BLANK



SOURCE: ESRI, March JPA General Plan (2017), Nearmap (2021)

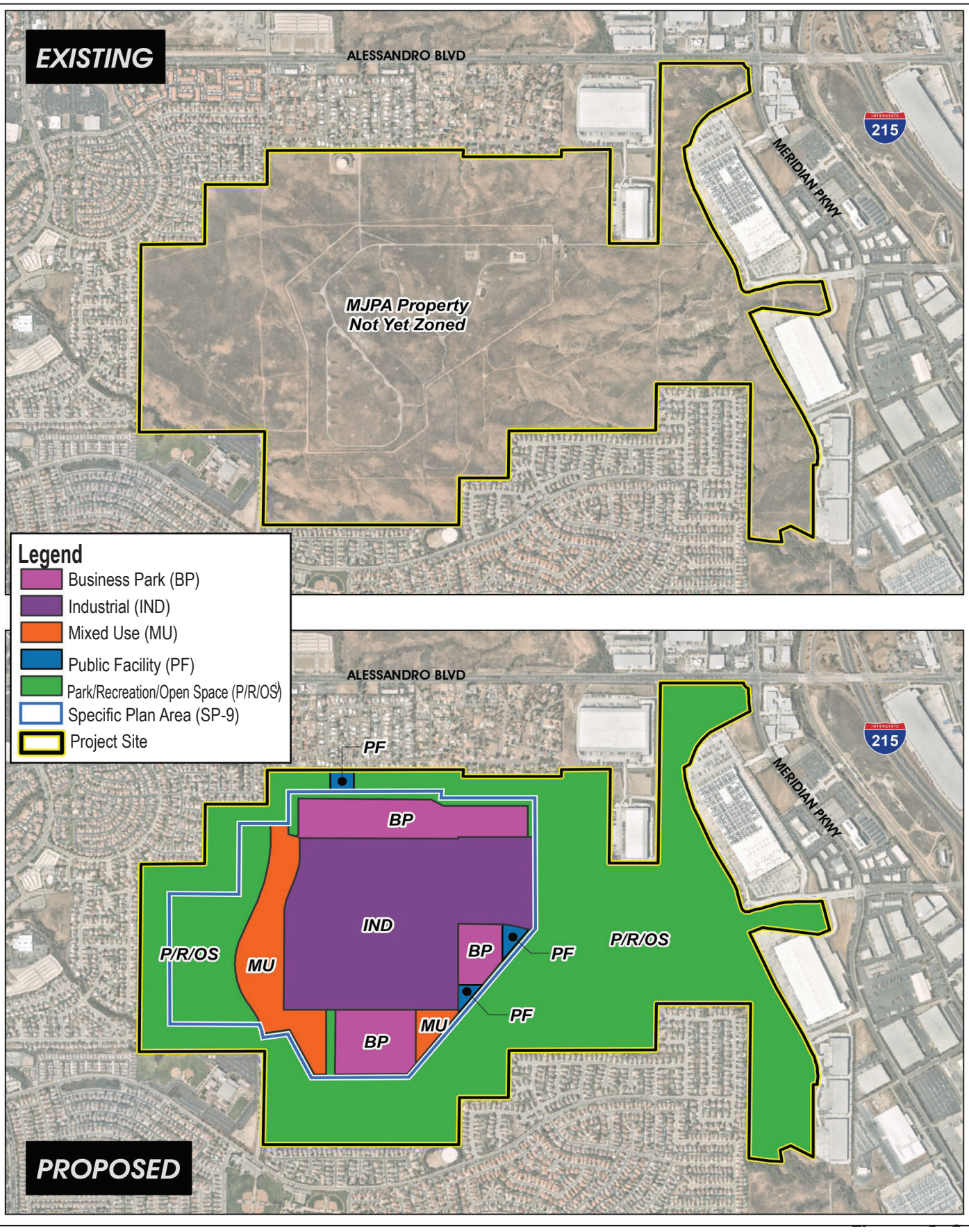
FIGURE 3-2

March JPA General Plan Existing and Proposed Land Use Designations

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: ESRI, March JPA General Plan (2017), Nearmap (2021)

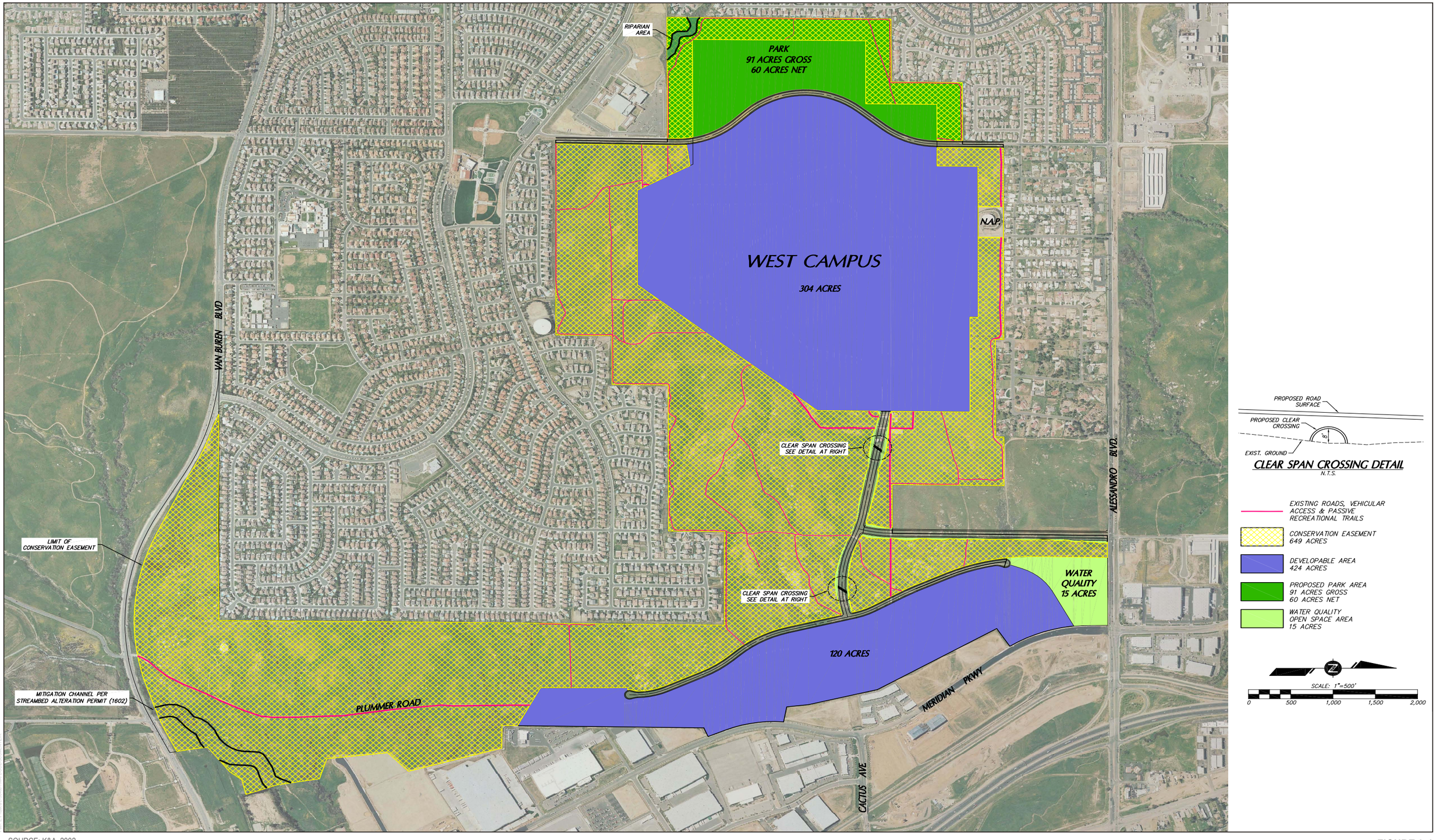
FIGURE 3-3

March JPA Zoning Designations

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: K&A, 2002

DUDEK 0 500 1,000 Feet

FIGURE 3-4

CBD Settlement Agreement

West Campus Upper Plateau EIR

INTENTIONALLY LEFT BLANK

LAND USE LEGEND

MIXED USE:	42.22 AC
BUSINESS PARK:	65.32 AC
INDUSTRIAL:	143.31 AC
STREETS:	37.91 AC
PUBLIC FACILITIES:	2.84 AC
PARKS/RECREATION/OPEN SPACE: (P/R/OS)	78.00 AC
NET DEVELOPABLE:	369.60 AC
EXISTING EMWD TANK	2.87 AC
CONSERVATION EASEMENT:	445.43 AC
GROSS ACREAGE:	817.90 AC

SOURCE: RGA 2022

DUDEK 0 500 1,000 Feet

FIGURE 3-5

Site Plan

West Campus Upper Plateau EIR

INTENTIONALLY LEFT BLANK

LAND USE LEGEND

MIXED USE:	43.77 AC
BUSINESS PARK:	66.35 AC
INDUSTRIAL:	143.46 AC
STREETS:	28.05 AC
PUBLIC FACILITIES:	3.53 AC
PARK:	10.00 AC
OPEN SPACE:	64.46 AC
NET DEVELOPABLE:	359.62 AC
PUBLIC FACILITY - EXISTING	2.87 AC
OPEN SPACE- CONSERVATION	445.05 AC
GROSS ACREAGE:	807.54 AC

Truck Routes

- Current MJPA Truck Routes
- Proposed Upper Plateau Truck Routes
- Local Traffic Only - No Trucks Permitted
- Outside of MJPA Boundaries

SOURCE: RGA 2021

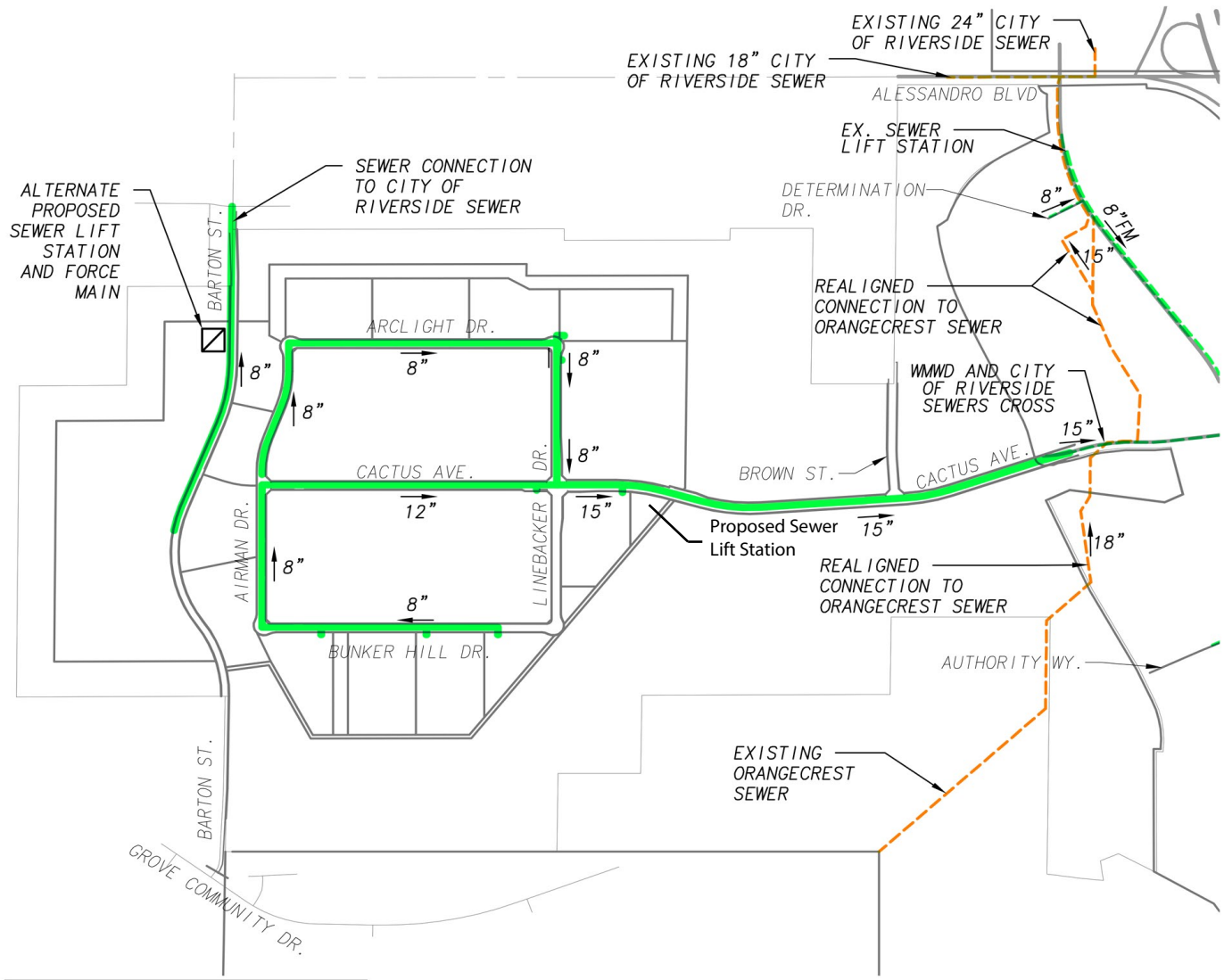
DUDEK 0 500 1,000 Feet

FIGURE 3-6

Proposed Truck Routes

West Campus Upper Plateau EIR

INTENTIONALLY LEFT BLANK

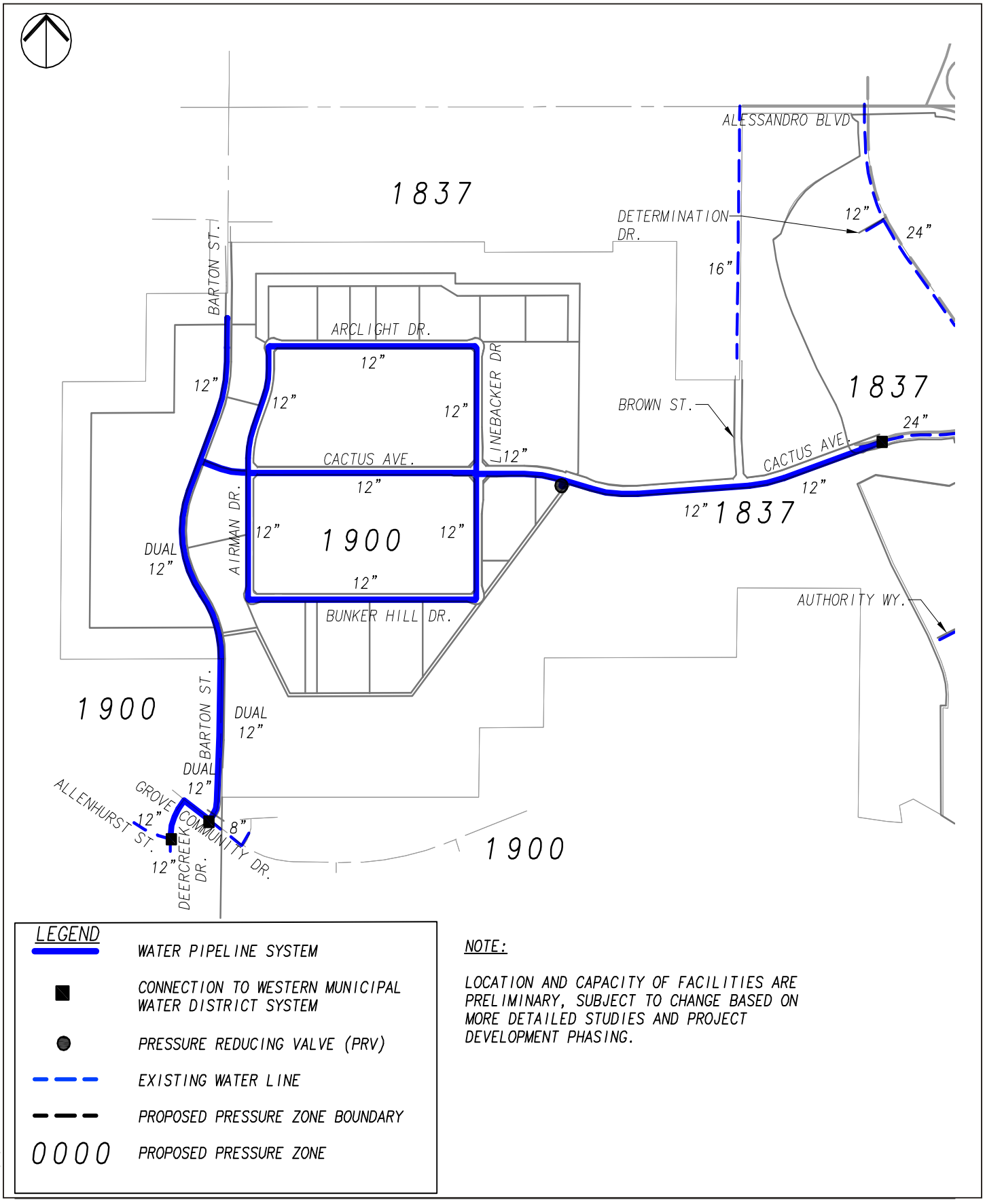


SOURCE: DRC Engineering, 2022

FIGURE 3-7A
Sewer System
West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE:DRC Engineering, 2022

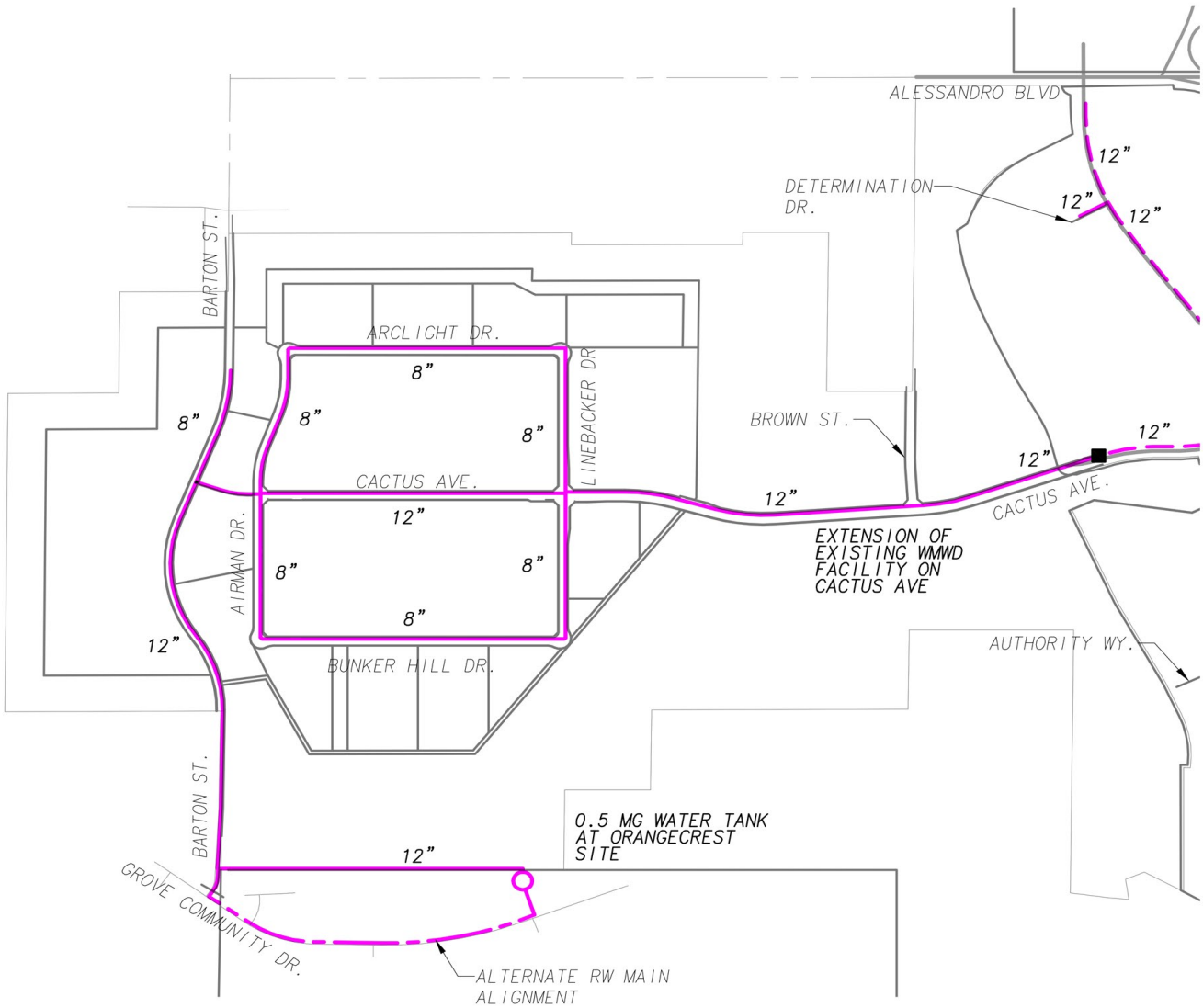
FIGURE 3-7B

Potable Water System

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



LEGEND

- PROPOSED MBC RECLAIMED WATER SYSTEM
- EXISTING PIPELINE
- CONNECTION TO WMWD NON-POTABLE SYSTEM

NOTE:

LOCATION AND CAPACITY OF FACILITIES ARE PRELIMINARY, SUBJECT TO CHANGE BASED ON MORE DETAILED STUDIES AND PROJECT DEVELOPMENT PHASING.

SOURCE: DRC Engineering, 2022

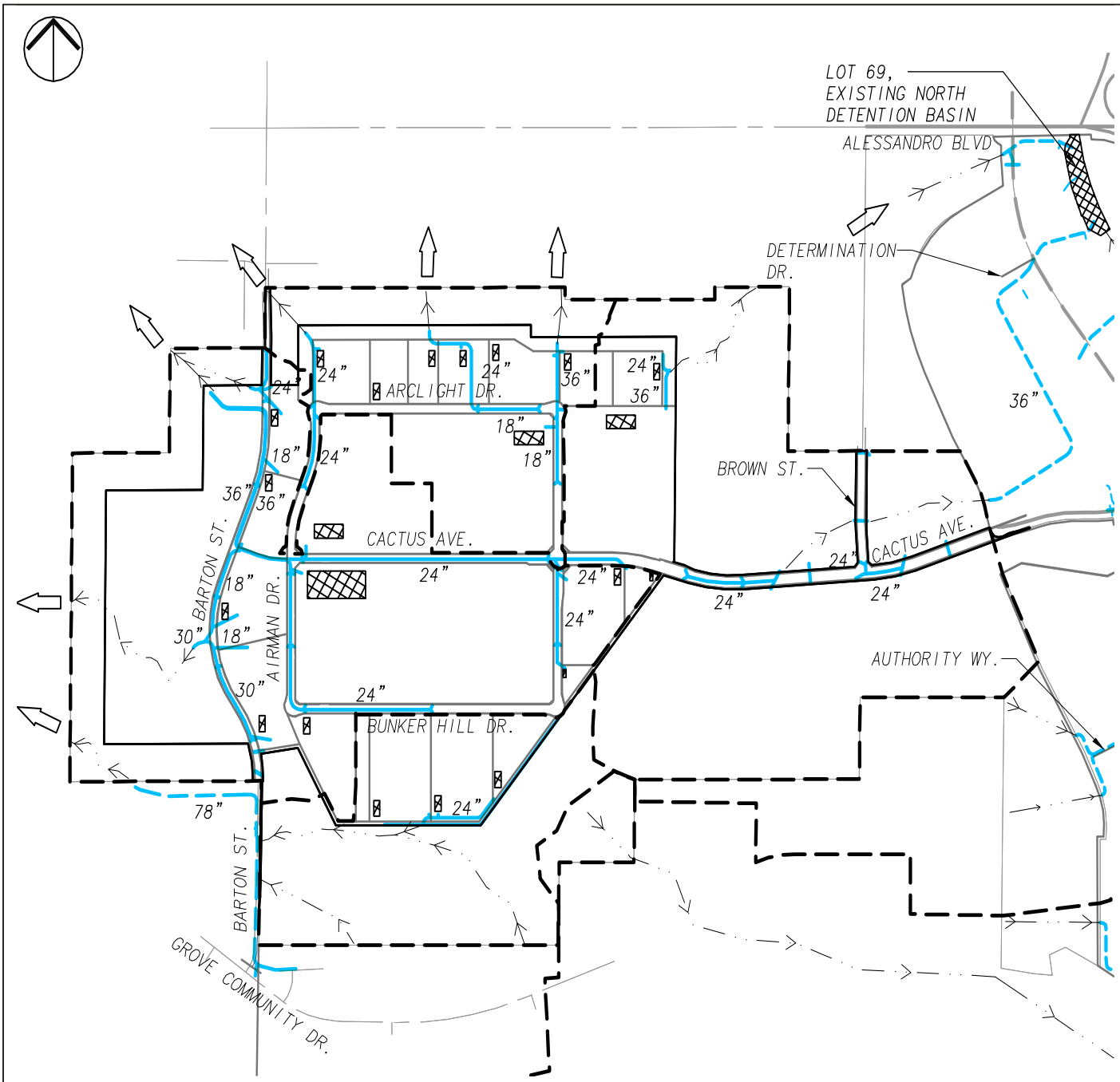
FIGURE 3-7C

Reclaimed Water System

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



LEGEND

- PR. PUBLIC STORM DRAIN SYSTEM
- EX. PUBLIC STORM DRAIN SYSTEM
- PRIVATE DETENTION BASIN
- OPEN CHANNEL
- DRAINAGE DIVIDE

NOTE:
DETENTION SYSTEMS IN THE PUBLIC RIGHT OF WAY OR LLMD TO BE MAINTAINED BY THE LLMD. DETENTIONS SYSTEMS ON PRIVATE PROPERTY TO BE MAINTAINED BY THE LAND OWNER.

NOTE:
LOCATION AND CAPACITY OF FACILITIES ARE PRELIMINARY, SUBJECT TO CHANGE BASED ON MORE DETAILED STUDIES AND PROJECT DEVELOPMENT PHASING.

SOURCE: DRC Engineering, 2022

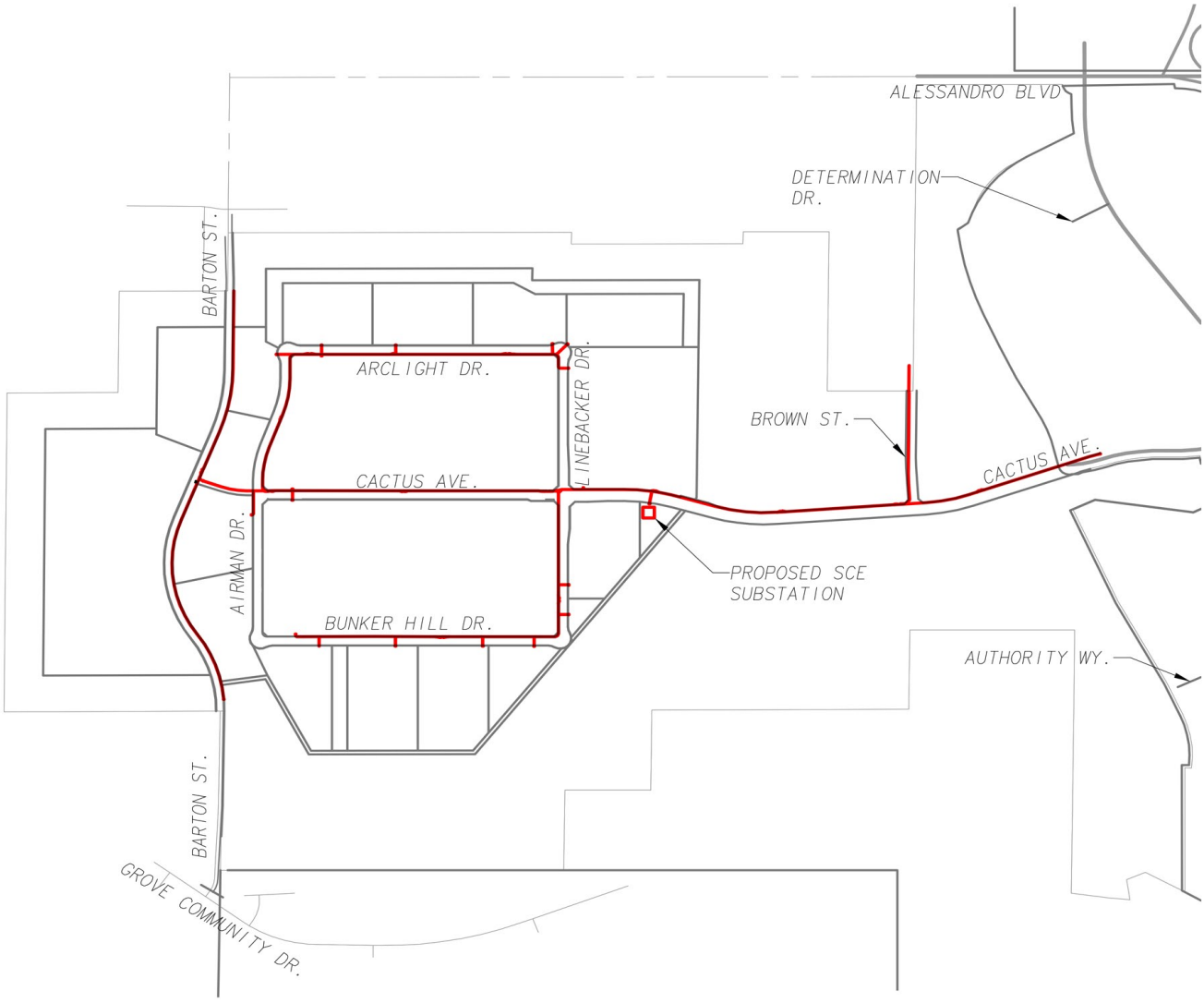
FIGURE 3-7D

Storm Drain System

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: DRC Engineering, 2022

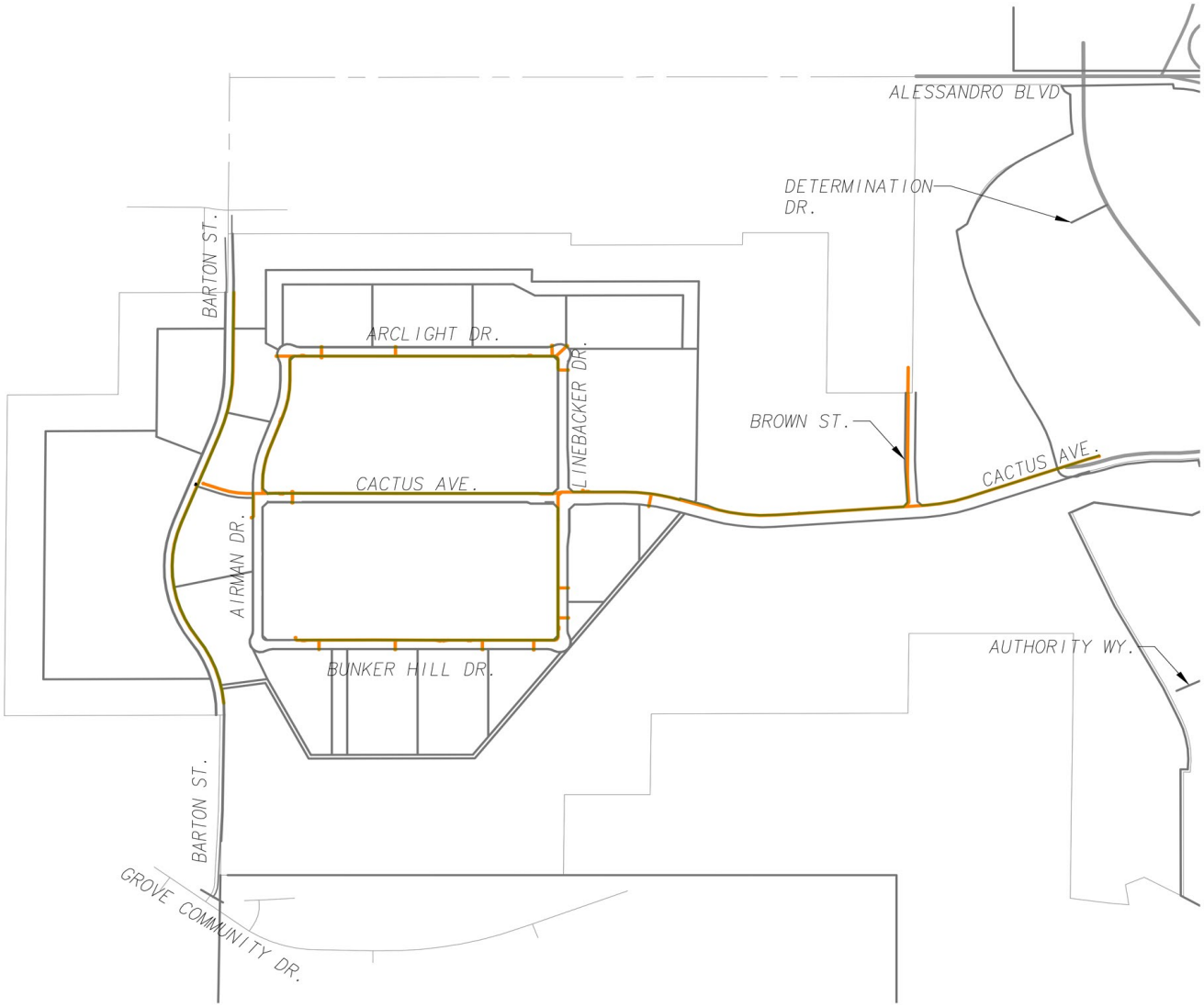
FIGURE 3-7E

Electrical Backbone

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



LEGEND

TELEPHONE BACKBONE (FRONTIER)

NOTE:
LOCATION AND CAPACITY OF FACILITIES ARE PRELIMINARY, SUBJECT TO CHANGE BASED ON MORE DETAILED STUDIES AND PROJECT DEVELOPMENT PHASING.

SOURCE: DRC Engineering, 2022

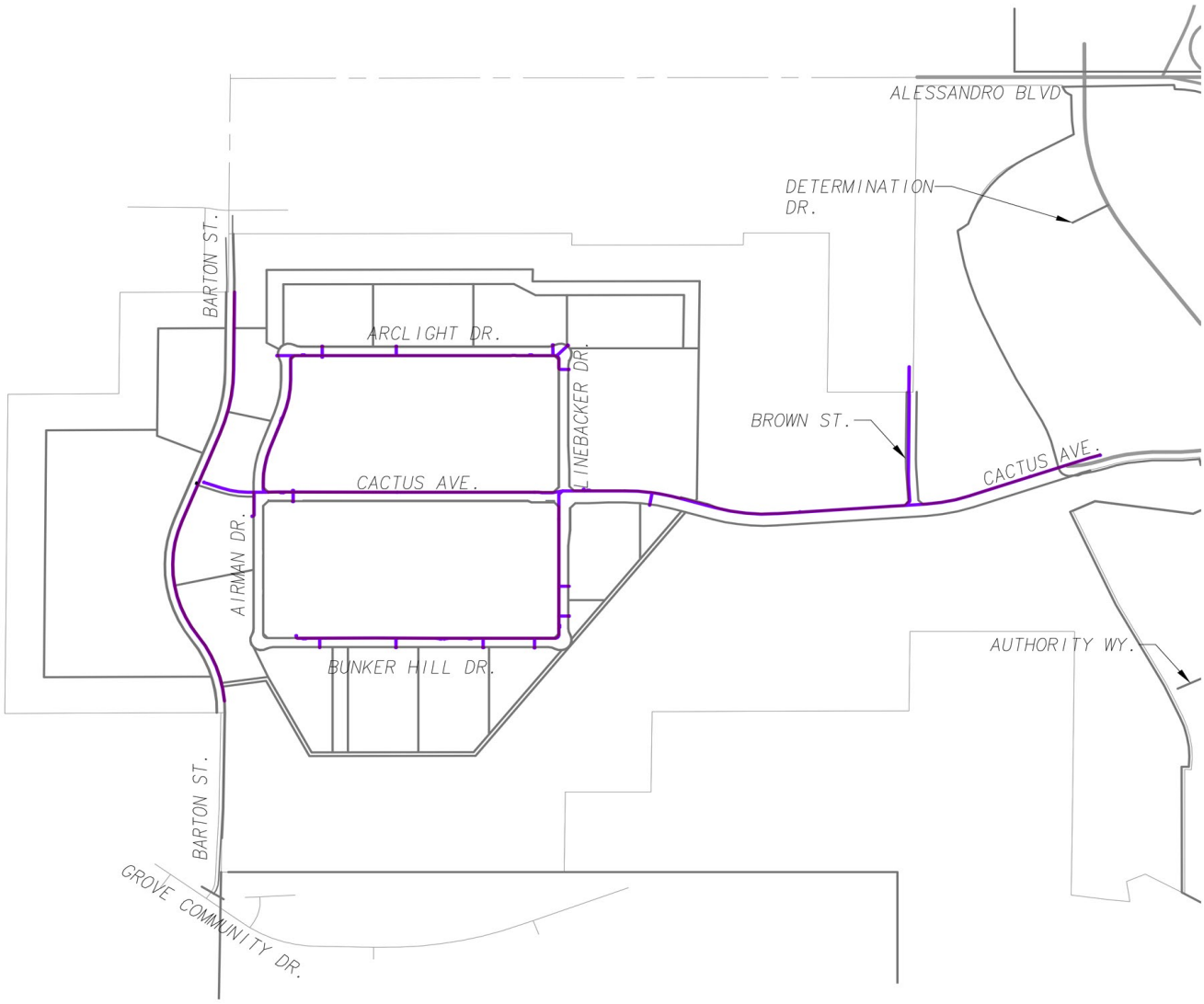
FIGURE 3-7F

Telephone Backbone

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



LEGEND

CABLE TV BACKBONE (CHARTER)

NOTE:
LOCATION AND CAPACITY OF FACILITIES ARE PRELIMINARY, SUBJECT TO CHANGE BASED ON MORE DETAILED STUDIES AND PROJECT DEVELOPMENT PHASING.

SOURCE: DRC Engineering, 2022

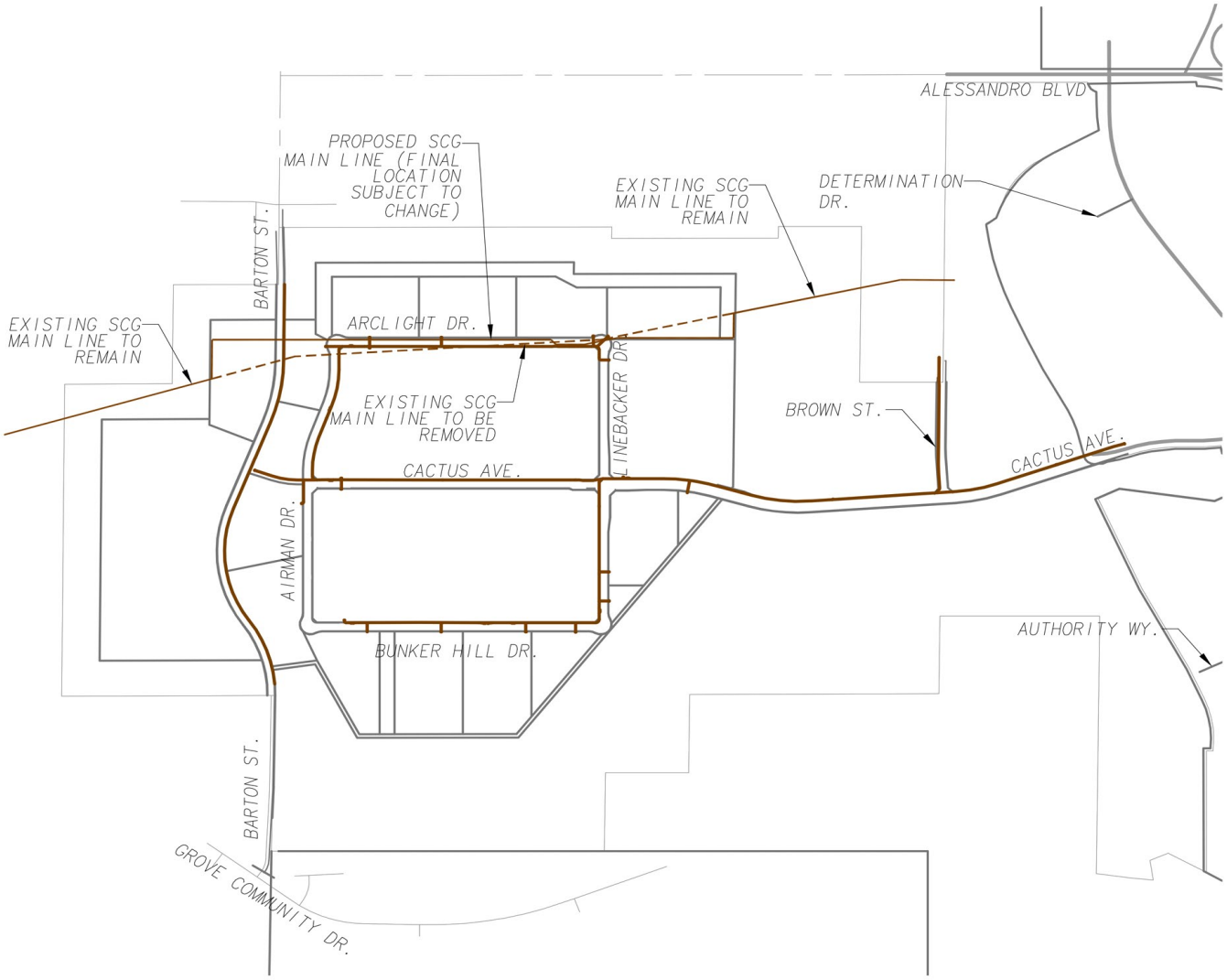
FIGURE 3-7G

Cable TV Backbone

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



LEGEND

GAS BACKBONE

NOTE:
LOCATION AND CAPACITY OF FACILITIES ARE PRELIMINARY, SUBJECT TO CHANGE BASED ON MORE DETAILED STUDIES AND PROJECT DEVELOPMENT PHASING.

SOURCE: DRC Engineering, 2022

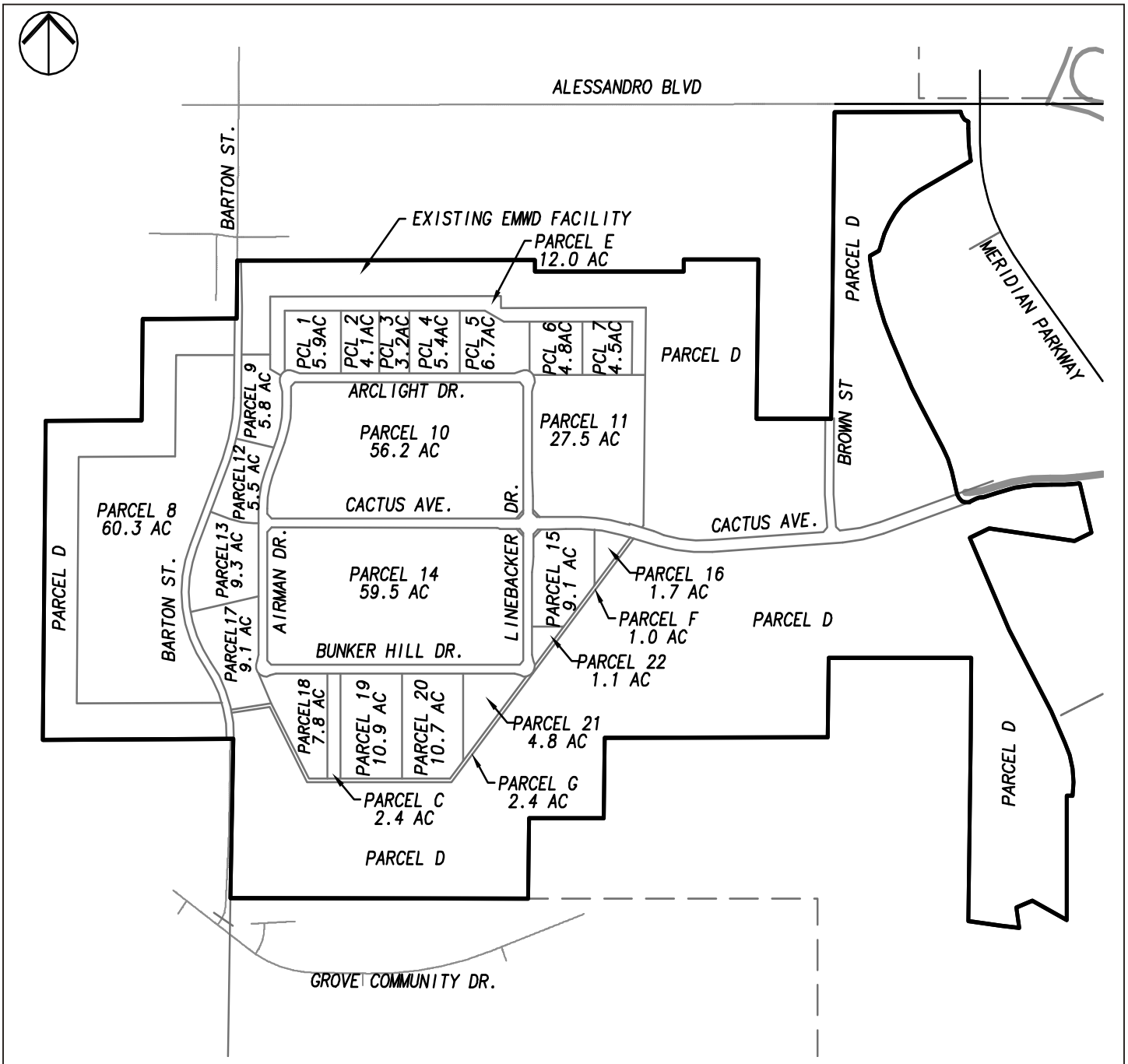
FIGURE 3-7H

Gas Bakbone

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



LEGEND

PARCEL LINES

NOTE:
LETTERED PARCELS FOR PROPOSED PUBLIC RIGHT OF WAY NOT SHOWN ON EXHIBIT FOR CLARITY
TENTATIVE PARCEL MAP 38063

SOURCE: DRC Enginerring, 2022

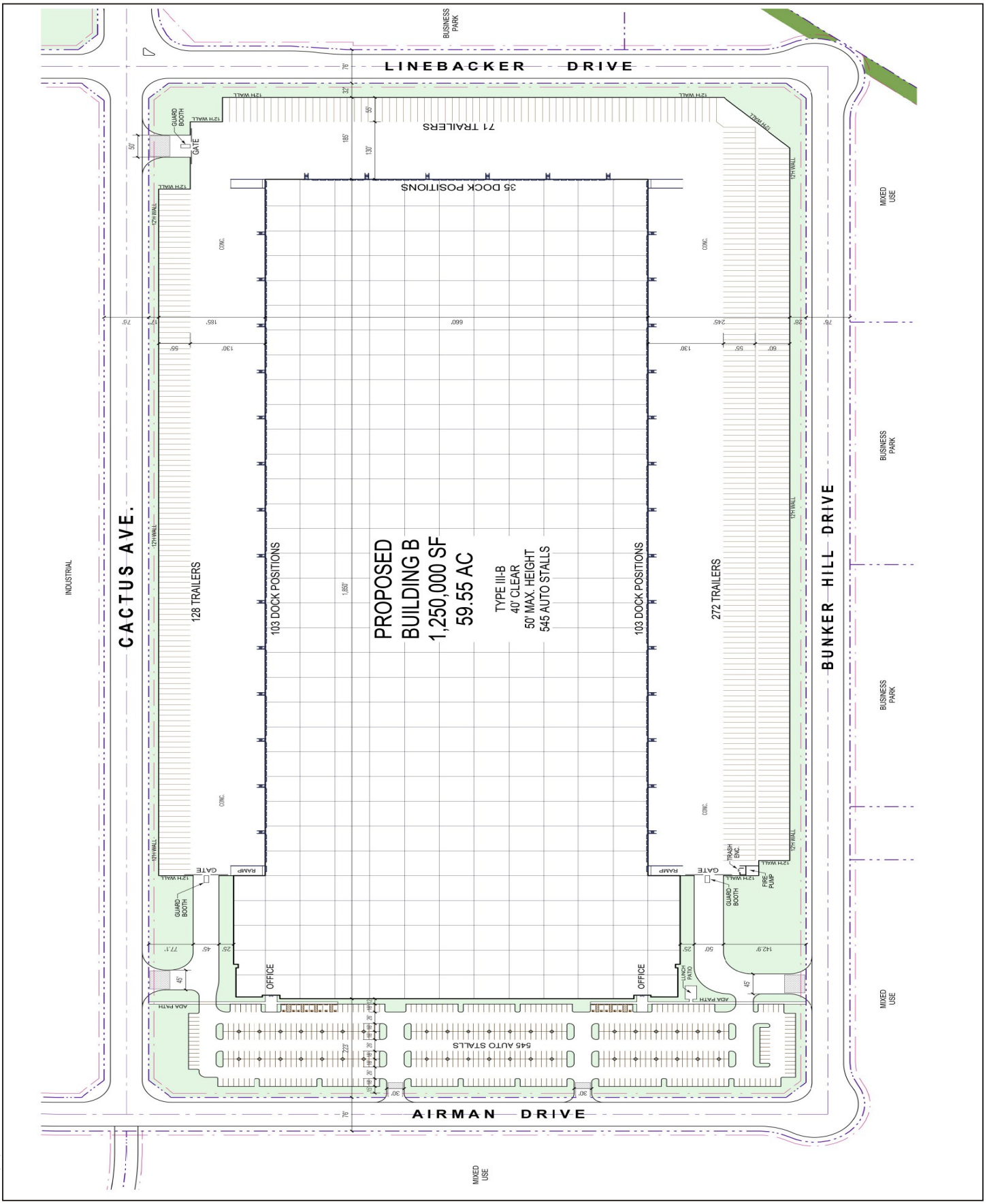
FIGURE 3-8

Tentative Parcel Map

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: RGA

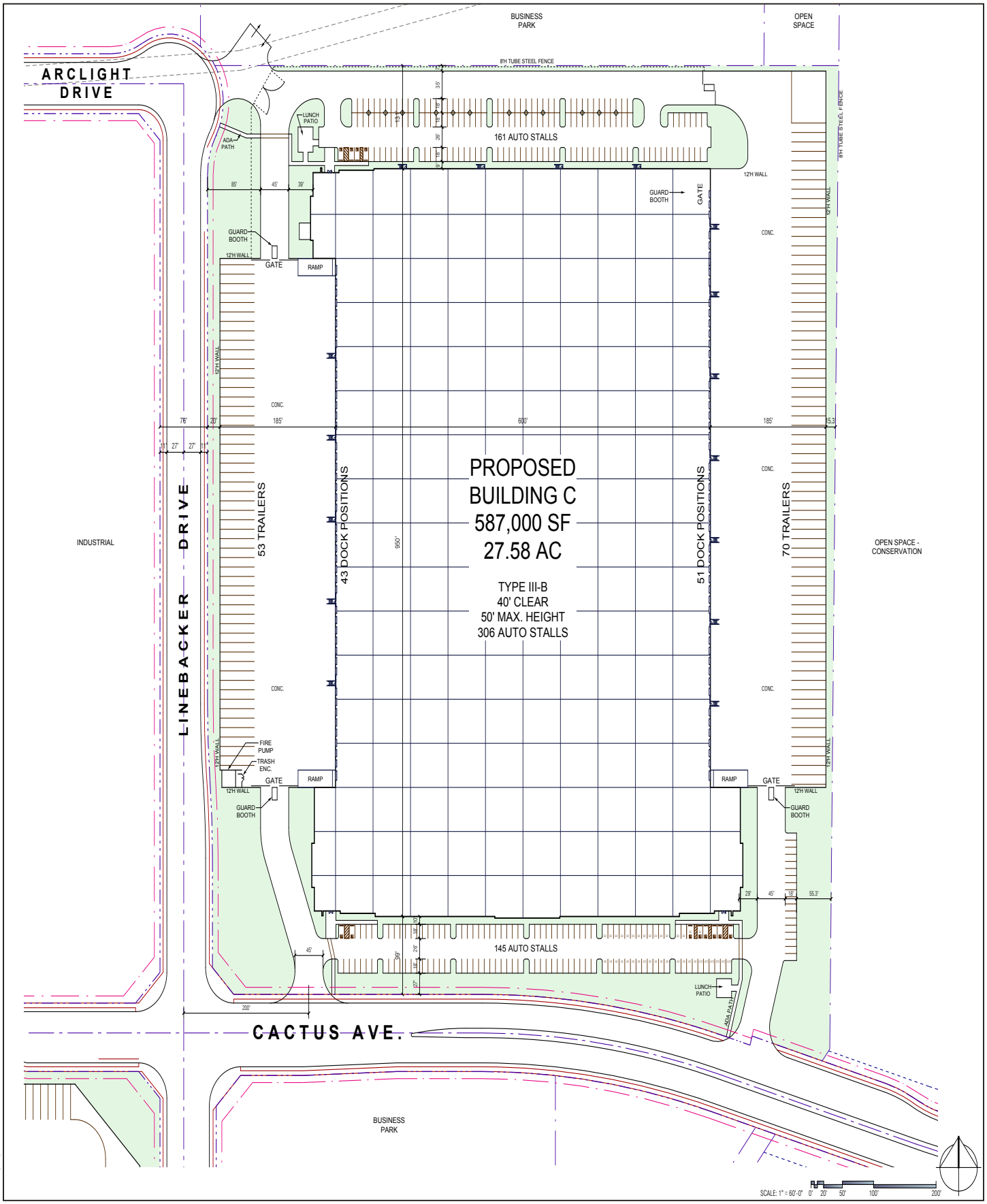
FIGURE 3-9

Plot Plan – Building B

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: RGA

FIGURE 3-10

Plot Plan – Building C

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

4 Environmental Analysis

The purpose of this Environmental Impact Report (EIR) is to evaluate the potential environmental effects of the proposed West Campus Upper Plateau Project (Project). Full buildout of the Specific Plan Area, as discussed throughout Chapter 3, Project Description, of the EIR, is assumed in the analysis herein. As such, this EIR evaluates implementation of the Specific Plan at a Project level while development specifics for certain parcels and specifically Building B and Building C are more certain at this time. The remainder of the proposed Project is evaluated with an assumed buildout scenario to represent a conservative maximum buildout to fully characterize environmental impacts associated with Specific Plan implementation. As development is proposed for each of the remaining parcels, March JPA will review this Project-level EIR to determine if potential environmental effects of implementing Plot Plans for each of these remaining parcels have been adequately addressed. If March JPA determines that potential environmental effects have not been addressed, additional environmental documentation in accordance with CEQA would be required.

The March Joint Powers Authority (JPA) circulated a Notice of Preparation (NOP) beginning on November 19, 2021, with the public review period ending on December 20, 2021. The NOP was transmitted to the State Clearinghouse, responsible agencies, other affected agencies, and interested parties to solicit issues or potential environmental effects related to the Project. The NOP, Initial Study, and comment letters are contained in Appendix A and a summary of comments received during the scoping period are included in Table 2-1 within Chapter 2, Introduction, of this EIR:

Sections 4.1 through 4.18 of the EIR contain the potential environmental impacts analysis associated with implementation of the Project and focus on the following issues:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

During preparation of the Initial Study/NOP for this EIR, other potential environmental impact areas, such as agriculture/forestry resources and mineral resources, were found not to be significant based on the results of the Initial Study. These issues and the analysis for these issues are included in Appendix A, as well as Chapter 5, Other CEQA Considerations, of this EIR.

Technical Studies

Technical studies were prepared in order to accurately analyze air quality/health risk assessments, biological resources, cultural and historical resources, energy resources, geology and soils/paleontological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation impacts, and utilities and service systems and were used in the preparation of this EIR. These documents are identified in the discussions for the individual environmental issues and included as technical appendices to the

EIR. Hard copies of the technical studies are available at the March JPA office and will also be available on the March JPA website, www.marchjpa.com.

Analysis Format

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

- **Existing Conditions**: Provides information describing the existing setting on or surrounding the Project site that may be subject to change as a result of implementation of the Project. This setting discussion describes the conditions that existed when the NOP was sent to responsible agencies and the State Clearinghouse.
- **Relevant Regulations, Plans, Policies, and Ordinances**: Provides a discussion of federal, state, regional, and local regulations, plans, policies, and ordinances applicable to the Project.
- **Project Design Features:** Where applicable, features of the Project that are incorporated into the Project design that reduce or avoid potential environmental impacts are identified.
- **Thresholds of Significance**: Provides criteria for determining the significance of Project impacts for each environmental topic.
- **Impact Analysis**: Provides a discussion of the characteristics of the Project that may have an effect on the environment, analyzes the nature and extent to which the Project is expected to change the existing environment, and indicates whether the Project impacts meet or exceed the levels of significance thresholds. Project-related impact analysis is based on the assumptions detailed in Chapter 3, which include, but are not limited to, discussion on the following: existing baseline conditions, Project components (i.e., Specific Plan Area and Conservation Easement), and Project construction assumptions (i.e., construction and grading quantities). Given the distinct components of the Project, impact analysis is separated as follows:
    - **Specific Plan Area:** Full buildout of the Specific Plan Area is assumed in the analysis, including three components: Campus Development, Park, and Infrastructure Improvements. Analysis evaluates implementation of the Specific Plan at a Project level while development specifics for certain parcels and specifically Building B and Building C are more certain at this time (e.g., Campus Development, below). The remainder of the proposed Project is evaluated with an assumed buildout scenario to represent a conservative maximum buildout to fully characterize environmental impacts associated with Specific Plan implementation.
        - **Campus Development:** Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan.
        - **Park:** The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users.
        - **Infrastructure Improvements:** Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the

construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank.

- **Conservation Easement**: The developer and March JPA propose to establish a 445.43-acre Conservation Easement, which would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. The currently existing service roads within the Conservation Easement, as depicted by the red lines on Figure 3-4, CBD Settlement Agreement, would continue to be utilized by the public for passive recreation as authorized by the March JPA, consistent with the terms of the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S). However, no new development would occur within the Conservation Easement and no physical alteration to the Conservation Easement is anticipated.

- **Mitigation Measures**: Identifies mitigation measures to reduce significant adverse impacts to the extent feasible.
- **Level of Significance After Mitigation**: Provides a discussion of significant adverse environmental impacts that cannot be feasibly mitigated or avoided, significant adverse environmental impacts that can be feasibly mitigated or avoided, adverse environmental impacts that are not significant, and beneficial impacts.
- **Cumulative Effects**: Provides a discussion of cumulative environmental effects of the proposed Project in combination with related projects as well as the Project's contribution to cumulative impacts.
- **References Cited**: Provides a list of references and documents cited within the section.

Cumulative Effects Analysis Methodology

Section 15130(b)(1)(A) of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) allows for the preparation of a list of past, present, and reasonably anticipated future projects as a viable method of determining cumulative impacts. This EIR discussion uses the following approach: an initial list and description of all related projects is presented, followed by a discussion of the effects that the Project may have on each environmental category of concern. Consistent with CEQA (California Public Resources Code, Section 21000 et seq.), this discussion is guided by the standards of practicality and reasonableness.

Section 15130(b)(3) of the CEQA Guidelines states that "lead agencies shall define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used." Unless otherwise indicated in the analysis in Chapter 4 of this Draft EIR, the geographic scope used in the cumulative analysis includes the March JPA planning area. However, there are environmental issues whose relevant geographic scope for purposes of cumulative impact analysis may be larger or smaller than this area, and may be defined by local, regional, or state agency jurisdiction or by other environmental factors. For example, the geographic scope of cumulative air quality impacts is defined by the South Coast Air Quality Management District to encompass the South Coast Air Basin. The basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Conversely, the geographic scope of cumulative aesthetic impacts is limited to anticipated growth and development in immediately adjacent areas that share a viewshed or line-of-sight with the Project site. Therefore, consideration of proposed developments near the Project site would provide a more relevant discussion of the cumulative aesthetic impacts of the proposed Project.

Table 4-1 describes the geographic scope of cumulative impact analysis for each environmental resource category, as well as the method of evaluation for each category.

Table 4-1. Geographic Scope and Method of Evaluation for Cumulative Impacts

Environmental Resource	Geographic Area	Method of Evaluation
Aesthetics	Immediate Vicinity	List of Projects
Air Quality (Toxic Air Contaminants; Odors)	Immediate Vicinity	List of Projects
Air Quality (Construction/Mobile Sources)	South Coast Air Basin	List of Projects
Biological Resources	Immediate Vicinity	List of Projects
Cultural Resources	Regional and Local	List of Projects
Energy	State	List of Projects
Geology and Soils	Regional	List of Projects
Greenhouse Gas Emissions	South Coast Air Basin	List of Projects
Hazards and Hazardous Materials	Immediate Vicinity	List of Projects
Hydrology and Water Quality	Sub-Watershed	List of Projects
	Groundwater Basin	
Land Use and Planning	Regional and Local	List of Projects
Noise (On-Site Construction Noise)	Immediate Vicinity	List of Projects
Noise (Off-Site Truck Noise)	Immediate Vicinity	List of Projects
Population and Housing	Regional	List of Projects
Public Services	Immediate Vicinity	List of Projects
Recreation	Immediate Vicinity	List of Projects
Transportation	Regional	List of Projects
Tribal Cultural Resources	Regional	List of Projects
Utilities and Service Systems	Immediate Vicinity	List of Projects
Wildfire	Immediate Vicinity	List of Projects

The following list of projects is based on the information provided in the Traffic Analysis Report (Appendix N). The cumulative project list was developed for the purposes of this EIR analysis through consultation with planning and engineering staff from March JPA to include key projects in on the March Air Reserve Base and in the City of Riverside, County of Riverside, and City of Moreno Valley. Table 4-2 presents the cumulative projects surrounding the Project site. The projects listed in Table 4-2 serve as the foundation on which the cumulative analysis approach has been based. Figure 4-1, Cumulative Development Location Map, shows geographically where the projects listed in Table 4-2 are located.

Table 4-2. Cumulative Projects

ID	Project Name	Land Use[1]	Quantity	Units[2]
March Joint Powers Authority				
MJPA1	Meridian Business Park (West Campus)	Industrial Park	2,278.852	TSF
MJPA2	K4 Parcel	Warehouse	718.000	TSF
MJPA3	Economic Business Center	Warehouse	124.523	TSF
MJPA4	Freeway Business Center	Warehouse	709	TSF
MJPA5	Veteran's Industrial Plaza/VIP 215	Warehouse	2,000.000	TSF
MJPA6	Veteran's Plaza	Commercial Retail	198.000	TSF
MJPA7	MS Van Buren I	Warehouse	176.396	TSF
MJPA8	MS Van Buren II	Warehouse	162.041	TSF
MJPA9	MS Prime Six	General Office	74.922	TSF

Table 4-2. Cumulative Projects

ID	Project Name	Land Use[1]	Quantity	Units[2]
MJPA10	Meridian Distribution Center IV	Warehouse	90.000	TSF
MJPA11	Meridian Distribution Center III	Warehouse	262.269	TSF
MJPA12	Eagle Business Park	Business Park	390.480	TSF
MJPA13	South Campus	Office	388.011	TSF
		Commercial Retail	282.730	TSF
		Business Park	1,764.180	TSF
		Industrial Park	1,774.437	TSF
City of Riverside				
R1	P17-0419/20/21	Fast Food w/ Drive Thru	1.857	TSF
R2	P16-0578	Warehouse	82.200	TSF
R3	P19-0151/P19-0152/P19-0153	Health and Fitness Club	21.706	TSF
R4	P13-0665	SFDR	8	DU
R5	P15-1035/P16-0556/P16-0567	Warehouse	176.149	TSF
R6	P14-0841 to P14-0848/ P16-0472/P16-0474	Warehouse	73.200	TSF
		Commercial Retail	15.000	TSF
R7	P14-0472/P14-0473/P15-0321/ P15-0322	SFDR	85	DU
R8	P19-0022/P19-0024/P19-0026/ P19-0027/P19-0028	Fast Food w/ Drive Thru	4.319	TSF
R9	Sycamore Hills Distribution Center	Warehouse	603.100	TSF
R10	P06-0900, P08-0269, P08-0270	Single Family Detached Housing	20	DU
R11	P06-1355	Single Family Detached Housing	20	DU
R12	P06-1396	Single Family Detached Housing	20	DU
R13	P03-1404	Single Family Detached Housing	20	DU
R14	P10-0113, P10-0118, P10-0449	Free-Standing Discount Superstore	138.516	TSF
		Home Improvement Superstore	155.433	TSF
		Shopping Plaza	125.608	TSF
R15	P12-0360	Vocational School	11.505	TSF
R16	P12-0507 through P12-0510	Warehouse/Industrial	235.741	TSF
R17	P13-0263, P13-0264, P13-0769	Retail	10.700	TSF
		Day Care	10.000	TSF
		Drive-Thru Restaurant	2.500	TSF
		Office	10.000	TSF
		Medical Office	8.000	TSF
R18	P13-0553, P13-0554, P13-0583, P14-0065	Multi-Family Residential	275	DU
R19	P13-0607, P13-0608, P13-0609, P13-0854	Industrial	171.616	TSF
R20	P14-0294, P14-0295, P14-0297, P16-0297 (JN:8890)	—	—	—
R21	P14-0536, P14-0537	Fast Food w/ Drive Thru	3.750	TSF
R22	P14-0600, P14-0601, P14-0602, P15-044	Industrial	121.390	TSF
R23	P14-1070	Warehousing	240.080	TSF
R24	P15-0075, P15-0076, P15-0819	Auto Repair	11.738	TSF
		Fast Food w/ Drive Thru	2.200	TSF

Table 4-2. Cumulative Projects

ID	Project Name	Land Use[1]	Quantity	Units[2]
R25	P15-0983, P15-0984	Child Care	15.000	TSF
R26	P17-0688, P17-0689	Car Wash	5.440	TSF
R27	P19-0042	Restaurant	4.300	TSF
		Office	9.920	TSF
R28	P19-0332, P19-0333	Car Wash	4.340	TSF
R29	P20-0013, P20-0014, P20-0015, P20-0016	Residential	81	DU
R30	P20-0018, P20-0019, P20-0020, P20-0021	Residential	138	DU
R31	P20-0203, P20-0281	Canyon Springs Healthcare Campus	280.800	TSF
County of Riverside				
RC1	PP 25422	Warehouse	814.000	TSF
RC2	Knox Business Park	Warehouse	1,259.050	TSF
RC3	Oleander Business Park	Warehouse	710.736	TSF
RC4	PP25382	Commercial Office Building	10.275	TSF
City of Moreno Valley				
MV1	Scottish Village	Multifamily	194	DU
MV2	Moreno Valley Cactus Center (PEN16-0131)	Warehouse	36.950	TSF
		Fast Food w/ Drive Thru	7.900	TSF
		Gas Station w/ Car Wash	28	VFP
MV3	PA 08-0047-0052 (Komar Cactus Plaza)	Hotel	110	Rooms
		Fast Food w/ Drive Thru	8.000	TSF
		Commercial	42.400	TSF

Source: Appendix N.
Notes:
1 SFDR = Single Family Detached Residential
2 DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions

4.1 Aesthetics

This section of the Environmental Impact Report (EIR) describes the existing visual character of the proposed West Campus Upper Plateau Project (Project) site and its surroundings, identifies regulatory requirements, evaluates potential impacts, and identified mitigation measures associated with the implementation of the Project, as applicable. In addition to other documents, the following references were used in the preparation of this section of the Draft EIR:

- West Campus Upper Plateau Specific Plan No. SP-9 (Meridian 2022)
- General Plan of the March Joint Powers Authority (JPA) (March JPA 1999a)
- Master Environmental Impact Report for the General Plan of the March Joint Powers Authority (March JPA 1999b)
- Meridian Upper Plateau Community Park Photometric Plans (Appendix B)
- Meridian Upper Plateau Conceptual Grading Plans (Appendix B)
- Meridian Upper Plateau Sight Line Section (Appendix B)

Other sources consulted are listed in Section 4.1.8, References Cited.

As discussed in detail in Chapter 3, Project Description of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.1.1 Existing Conditions

The Project site is located in the western portion of the March JPA jurisdiction, approximately half a mile west of Interstate (I) 215. The site is located west of Cactus Avenue's current terminus, to the east and south of the Mission Grove neighborhood, and to the north of the Orangecrest neighborhood in the City of Riverside. According to the California Department of Transportation's California Scenic Highway Program, there are no officially designated or eligible state scenic highways located adjacent to or near the Project site (Caltrans 2021).

Existing Visual Character and Quality

Portions of the Project site have been previously disturbed with existing structures related to previous operations for munitions storage by the Air Force. The Project's proposed Specific Plan Area covers a previously developed area which is currently developed with a non-operational water tower, electrical poles, dirt and partially paved access roads, and 16 bunkers and related structures. All of the bunkers are currently used by Pyro Spectaculars, Inc. for the storage of fireworks. Several internal roads transverse the Project site, providing access to the existing structures. The remainder of the Project site, which is proposed as the Project's Conservation Easement, is mostly undeveloped open space.

The Project site supports vegetation communities and other land covers, as identified in Section 4.3, Biological Resources, of this Draft EIR. Vegetation communities and land uses mapped within the Project site are predominantly comprised of non-native grasslands, disturbed habitat, and urban/developed land cover (i.e., roads and structures). The Project site does not contain ornamental landscaping or pedestrian improvements. The CBD Settlement Agreement (Appendix S) identified publicly accessible trails in areas of the Project site that would be within the Conservation Easement. This area has been utilized by the public for passive recreation for more than 10 years. The Project site does not contain large stands of trees; however, it does support small stands of riparian forest along the eastern portion of the site, and one area located in the southwest corner of the site.

Site Topography

The Project site consists of relatively flat areas with some undulating topography. In general, it gently slopes from the west and the east to the center of the site. Elevations range approximately from 1780 feet above mean sea level (AMSL) at the center of the site to approximately 1640 feet AMSL and 1560 AMSL along the western and eastern portions of the site, respectively. The Project area and its immediate surroundings are mostly flat; however, the San Bernardino Mountain Range and its foothills are approximately 20 miles to the northeast, and Mount San Jacinto is located to the east of the Project site, and therefore distant views of this terrain are available from the Project site and in the Project area.

Existing and Surrounding Land Uses

The March JPA's General Plan currently designates the Project site as Business Park (BP), Industrial (IND) and Park/Recreation/Open Space (P/R/OS). The Project site has not been assigned a zoning designation. However, the Project proposes a General Plan Amendment that would create a Specific Plan (SP-9) that designates the Specific Plan Area as Mixed Use, Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facilities. The proposed General Plan Amendment would also include 445.43 acres of Parks/Recreation/Open Space outside the Specific Plan area that will be placed under a Conservation Easement. The Project site is primarily surrounded by residential uses to the north, west, and south, Meridian West Lower Plateau industrial project located within the March JPA to the east, and two existing industrial buildings to the east and northeast. The Meridian West Lower Plateau industrial project includes industrial, business park, and mixed-use zoning designations. The Mission Grove neighborhood to the northwest and west is located in the City of Riverside. The residential uses to the south are part of the Orangecrest neighborhood in the City of Riverside. The nearest residential area is approximately 300 feet north of the proposed Specific Plan Area, within the Mission Grove neighborhood. The closest school to the Project site is a preschool, located at the Grove Community Church approximately one-quarter mile southwest of the Project. Benjamin Franklin Elementary School and Amelia Earhart Middle School are located to the south of the Project in the Orangecrest neighborhood. The Benjamin Franklin Elementary School is located approximately 0.8 miles south of the Project site and the Amelia Earhart Middle School is located approximately 1 mile south of the Project site.

Light and Glare

Due to the nature of existing uses on the Project site, no current sources of daytime glare or nighttime lighting exist at the Project site. There is lighting in the surrounding area, which consists of streetlights on Meridian Parkway, Cactus Avenue, Alessandro Boulevard and other local surface streets, streetlights and vehicle headlights on I-215. Interior and exterior lighting from industrial land uses to the east as well as residential land uses to the north, west, and south contribute nighttime lighting to the Project area; sports lighting installed at Orange Terrace Park and the Grove Community Church also contributes to nighttime Project area lighting.

Scenic Vistas

A scenic vista is generally defined as a view of undisturbed natural lands exhibiting a unique or unusual feature that comprises an important or dominant portion of the viewshed; under CEQA, scenic vistas can also be characterized as broad, long-range public views such as from an elevated vista point. According to the March JPA General Plan, areas looking east and northeast of the March JPA Planning Area and residential areas located in the Orangecrest and Mission Grove neighborhoods toward the San Bernardino Mountain Range and its foothills offer scenic vistas (March JPA 1999a). The March JPA General Plan states that conservation of these scenic vistas would ensure preservation of the area's scenic qualities. The Scenic and Viewshed Areas map from the March JPA General Plan identifies these areas and is included as Figure 4.1-1.

Views of the San Bernardino Mountain Range and its foothills may be available from residences east of Orange Terrace Parkway in Orangecrest neighborhood. However, views from private residences are not considered in this analysis as they are not covered under the CEQA Guidelines. Views towards the Project site and to the mountainous terrain in the surrounding area are however available from public roadways in the Orangecrest neighborhood (Barton Drive and Dayton Street) and along Camino Del Sol, near East Alessandro Boulevard. As these roadways are publicly accessible, available public views are protected and are considered in this analysis. The Project Viewshed is discussed below and views toward the foothills and mountainous terrain are further discussed in Viewpoint No. 3 and Viewpoint No. 4.

Project Viewshed

Two site visits were conducted on July 12, 2022, to identify locations or viewpoints from which to assess the potential impacts associated with the Specific Plan Area of the Project. After visiting the site and examining the availability of existing views to mountainous terrain in the surrounding area, it was determined that five public viewpoints warrant detailed consideration in preparation of the Specific Plan. The five viewpoints identified for the visual analysis are shown in Figure 4.1-2, with photosimulations from each viewpoint included in Figures 4.1-3 through 4.1-7

These viewpoints are: (1) looking south towards the Project site along Camino Del Sol, near East Alessandro Boulevard, (2) looking southeast towards the Project site along the corner of Saltcoats Drive and Greenock Way, (3) looking northeast towards the Project site in the Orangecrest neighborhood at the intersection of Deercreek Drive and Grove Community Drive, near the Grove Community Church, (4) looking north towards the Project site in the Orangecrest neighborhood, along the eastern end of Dayton Street, and (5) looking northwest towards the Project site in the Orangecrest neighborhood along the western end of Iris Canyon Road.

Sight line sections were prepared for the Project that show existing and proposed grades at five sections throughout the Project site. These sections were prepared to demonstrate the general scope of grading required for the Project as well as the elevations of the Project Specific Plan Area as they relate to the Conservation Easement and

neighboring off-site residential areas (see Appendix B). Section locations were selected to match the locations of the viewpoints described above to show the topography of the Project at those locations under existing and proposed conditions.

The existing views available and visual qualities of each of these photosimulated viewpoints are depicted in Figures 4.1-3 through 4.1-7 and described below. A description of each corresponding sight line section is also provided below.

Viewpoint No. 1 (Looking south towards the Project site near Camino Del Sol and East Alessandro Boulevard)

Viewpoint No. 1, as shown in Figure 4.1-3, is located on Camino Del Sol, approximately 0.2-miles south of East Alessandro Boulevard, and provides a southerly view towards the Project. Viewpoint No. 1 is representative of views towards the Project site available to motorists traveling along Camino Del Sol and residences in the vicinity. This viewpoint is taken from an AMSL of 1634 feet and does not afford views of the locally prominent San Bernardino Mountain Range and its foothills due to its southerly orientation. The existing condition shown in this viewpoint shows the Project site to have no prominent visual features. The existing view depicts the landscape as having a gradually uphill, continuous gradient; therefore, views from this viewpoint are limited to the immediate landscape and distant views of the area are blocked. The existing gradient at this viewpoint is shown along Section M on the site section plan (Appendix B). The existing grade is shown to have an approximately 20-foot incline from this viewpoint, across the 300-foot Conservation Easement, to the edge of the proposed Specific Plan Area.

Viewpoint No. 2 (Looking southeast towards the Project site near Saltcoats Drive/Greenock Way and East Alessandro Boulevard)

Viewpoint No. 2, as shown in Figure 4.1-4, is located at the existing terminus of Barton Street looking south. The intersection of Saltcoats Drive and Greenock Way, approximately 0.3-miles south of East Alessandro Boulevard, is proximate to this location. Viewpoint No. 2 is representative of views towards the Project site available to motorists traveling along Barton Street and residences in the vicinity. This viewpoint is taken from an AMSL of 1655 feet and does not afford views of the locally prominent San Bernardino Mountain Range and its foothills due to its southeasterly orientation. The existing viewpoint shows the Project site as undeveloped open space. The viewpoint shows slightly undulating desert landscape covered with dirt and low, dry grasses and shrubs, a previously disturbed dirt roadway which was used for previous on-site operations; the view also shows existing unused infrastructure in the background, including electrical poles and a water tower. The existing gradient at this viewpoint is shown along Section Q on the site section plan (Appendix B). The existing grade is shown to have an approximately 5-foot incline from this viewpoint, across the 300-foot Conservation Easement and proposed Barton Drive extension, to the edge of the proposed Specific Plan Area.

Viewpoint No. 3 (Looking northeast towards the Project site near Barton Drive and the Grove Community Church)

Viewpoint No. 3, as shown in Figure 4.1-5, is located near the intersection of Barton Street and Grove Community Drive, approximately 250 feet south of the Project site. The viewpoint provides an elevated northeasterly view towards the Project site. Viewpoint No. 3 is representative of views towards the Project site available to motorists and pedestrians along Grove Community Drive. This viewpoint is taken from a AMSL of 1,722 feet. Under existing conditions, this viewpoint offers distant views of the locally prominent foothills of the San Bernardino Mountain Range to the north in the background. The viewpoint also offers views of the Grove Community Church in the foreground and previously disturbed dirt roads, electrical poles, and the former munitions bunkers in the background. The existing gradient from northernmost point of Barton Drive, adjacent to the Grove Community Church to the Specific Plan Area is shown along Section P on the site section plan (Appendix B). This point, along

Section P, is approximately 0.22 miles north of Viewpoint No. 3, in line with the Project site and Viewpoint No. 3. The existing grade is shown to have an approximately 8-foot incline from the northernmost point of Barton Drive, across the 300-foot Conservation Easement, to the edge of the proposed Specific Plan Area.

Viewpoint No. 4 (Looking north towards the Project site near the eastern end of Dayton Street in the Orangecrest neighborhood)

Viewpoint No. 4, as shown in Figure 4.1-6, is located along the eastern end of Dayton Street in the Orangecrest neighborhood and provides a northernly view towards the Project. The Orangecrest neighborhood, which is south of the Project site, is located at a slightly higher elevation to the Project site. As such, there is the potential for downhill views onto the Project site from the public streets and residences in the neighborhood. Viewpoint No. 4 is representative of views towards the Project site available to motorists traveling along Dayton Street and residences in the Orangecrest neighborhood. This viewpoint is taken from an AMSL of 1775 feet. Under existing conditions, this viewpoint offers distant views of the locally prominent San Bernardino Mountain Range and its foothills to the northeast in the background. The foreground is defined by both undeveloped open space consisting of flat desert landscape (dirt, low shrubs and grasses) and existing infrastructure associated with site operations, including: electrical poles, dirt roads, and the former munitions bunkers currently used to store fireworks. The existing gradient at this viewpoint is shown along Section O on the site section plan (Appendix B). The existing grade is shown to have an approximately 40-foot decline from this viewpoint, across the Conservation Easement, to the edge of the proposed Specific Plan Area.

Viewpoint No. 5 (Looking north towards the Project site near the western end of Iris Canyon Drive in the Orangecrest neighborhood)

Viewpoint No. 5, as shown in Figure 4.1-7, is located along the western end of Iris Canyon Road in the Orangecrest neighborhood and provides a northerly view towards the Project site. The Orangecrest neighborhood, which is south of the Project site, is located at a slightly higher elevation to the Project site. As such, there is the potential for views onto the Project site from the public streets and residences in the neighborhood. Viewpoint No. 5 is representative of views towards the Project site available to motorists traveling along Iris Canyon Drive and residences in the Orangecrest neighborhood. This viewpoint is taken from an AMSL of 1762 feet; to the north of the viewpoint, a gradual hill formation exists on the proposed Conservation Easement which blocks views of proposed Specific Plan Area. Because of this intervening topographic feature, Viewpoint No. 5 does not offer views of proposed Project development or the locally prominent San Bernardino Mountain Range. Therefore, the Project would not be visible from Viewpoint No. 5 and the surrounding visible landscape would not be altered. The existing gradient at this viewpoint is shown along Section N on the site section plan (Appendix B). The existing grade is shown to have an approximately 12-foot incline from this viewpoint to the top of the aforementioned hill formation.

4.1.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal regulations related to aesthetic or visual impacts applicable to the Project.

State

California Scenic Highway System

Created in 1963, the California Scenic Highway Program includes highways designated by Caltrans as scenic. The purpose of the program is to protect the scenic beauty of California highways and adjacent corridors through conservation and land use regulation.

California Code of Regulations

Title 24 – California Building Standards Code

Title 24, California Building Standards Code, consists of regulations to control building standards. The following components of Title 24 include code 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 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 rights 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 California Energy Code. 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 California Energy Code sets forth lighting power density restrictions for signs.

Local

March JPA General Plan

The Land Use and Resource Management Elements of the March JPA General Plan includes goals and policies related to scenic vistas. The following goals and policies from the March JPA General Plan apply to the Project (March JPA 1999a). Consistency with these goals and policies is discussed in Section 4.10, Land Use and Planning.

Land Use Element

Goal 4: Develop an identity and foster quality development within the Planning Area.

Policy 4.4: Develop a distinctive community identity for commercial, business park, and industrial developments that reflect the character and atmosphere of March JPA Planning Area through the use of good planning and design principals, and sound development practices which serve as guidelines for building materials, colors, site design and orientation, and landscaping.

Goal 8: Preserve the natural beauty, minimize degradation of the March JPA Planning Area, and provide enhancement of environmental resources, and scenic vistas.

Policy 8.2: Sensitive biological resources and habitats, cultural resources, view shed areas shall be protected where practical.

Policy 8.5 Pursue the release of lands designated as suitable endangered species habitat through a process of land trades for more and better habitat.

Resource Management Element

Goal 9: Create a network of open space and linkages throughout the Planning Area that serves to preserve natural resources, protect health and safety, contributes to the character of the community, provide active and passive recreational use, as well as visual and physical relief from urban development.

Policy 9.1: Encourage a "link" system of open space land to intermix with development providing both visual buffers and relief, as well as preservation and connectivity of the natural environment.

March JPA Development Code

The March JPA Development Code provides for parcel-specific zone designations for all land within its jurisdiction and subdivision regulations. Title 9 of the March JPA's Municipal Code contains the Development Code for the March JPA and includes regulations for site planning and development. The Project site has not previously been given a zoning designation per the March JPA Zoning Map.

4.1.3 Project Design Features

The following Project Design Features (PDFs) have been incorporated into the Project and the impact analysis in Section 4.1.5 below. PDFs apply to both on-site and off-site components, as indicated in parentheses.

PDF-AES-1 Development shall comply with the Specific Plan Design Standards which dictate building heights, setbacks, color pallets and materials intended to minimize visual obstructions and maximize visual compatibility.

PDF-AES-2 All exterior lighting shall minimize glare and "spill over" light onto public streets, adjacent properties, and Conservation Easement by using downward- directed lights and/or cutoff devises on outdoor lighting fixtures, including spotlights, floodlights, electrical reflectors, and other means of illumination for signs, structures, parking, loading, unloading, and similar areas. Where desired, illuminate trees and other landscape features by concealed uplight fixtures (on- and off-site).

PDF-AES-3 Limit light spillover or trespass to one-half foot-candle or less, measured at the property line for development adjacent to the Conservation Easement (off-site). This shall be confirmed through point-by-point photometric study.

PDF-AES-4 Limit light spillover or trespass to one-half foot-candle or less, measured from within five feet of any adjacent property line for development adjacent to nonresidential uses (on-site). This shall be confirmed through point-by-point photometric study.

PDF-AES-5 Lighting fixtures shall have a similar design, materials, fixture color, and light color. Use of LED lighting shall be required for parking lot lighting; parking lot lighting shall be within 100 Kelvin of 2700 Kelvin; other lighting techniques for accent lighting shall be allowed (on- and off-site).

PDF-AES-6 Lights shall be unbreakable plastic, recessed, or otherwise designed to reduce the problems associated with damage and replacement of fixtures (on- and off-site).

PDF-AES-7 Neon and similar types of lighting are prohibited in all areas with the Specific Plan Area (on-site).

PDF-AES-8 Locate all electrical meter pedestals and light switch/control equipment in areas with minimum public visibility or screen them with appropriate plan materials (on- and off-site).

PDF-AES-9 Illuminate parking lots, loading dock areas, pedestrian walkways, building entrances, and public sidewalks to the level necessary for building operation and security reasons. Dimmers and motion detectors are permitted (on-site).

PDF-AES-10 Along sidewalks and walkways, the use of low mounted fixtures (ground or bollard height), which reinforce the pedestrian-scaled, are encouraged (on-site).

PDF-AES-11 Use exterior lights to accent entrances, plazas, activity areas, and special features (on-site).

PDF-AES-12 High-Pressure (HPS) light fixtures are prohibited for site lighting (on-site).

PDF-AES-13 Lighting is prohibited that could be mistaken for airport lighting or that would create glare in the eyes of pilots of aircraft using the nearby March Air Reserve Base (on-site).

PDF-AES-14 All exterior on-site light fixtures shall be fully shielded with no light emitted above the horizon (on-site).

PDF-AES-15 Maximum on-site lighting wattage is 750 (on- and off-site).

PDF-AES-16 Maximum height of on-site exterior lighting for buildings is 25 feet; sports fields lighting may have a maximum height of 50 feet and shall be located no closer than 450 feet from residences (on site).

4.1.4 Thresholds of Significance

The significance criteria used to evaluate the Project impacts related to aesthetics are based on the following 2022 March JPA California Environmental Quality Act (CEQA) Guidelines. A project would result in significant impacts if it 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.

Through the analysis provided in the Initial Study prepared for the Project (see Appendix A), it was determined that the Project would not substantially degrade scenic resources within a State Scenic Highway. Accordingly, this issue is not further analyzed in this EIR. For details regarding this threshold, please refer to Chapter 5, Other CEQA Considerations and the Initial Study included as Appendix A. For the purposes of this analysis, a significant impact would occur if the Project would:

AES-1: Have a substantial adverse effect on a scenic vista.

AES-2: 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).

AES-3: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.5 Impacts Analysis

Threshold AES-1. Would the Project have a substantial adverse effect on a scenic vista?

Specific Plan Area

Campus Development

Construction

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facility parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. Project construction would be broken out into two phases. The first phase includes rough grading for the entire proposed Specific Plan Area, including the removal of 14 of the existing bunkers and infrastructure. As described in Section 3.5 of the Project Description, the first phase of construction is expected to last

approximately 9 months, commencing mid-2023 and ending early-2024. The second phase of the Project would last approximately 43 months, from early 2024 to late 2027. Construction of the Campus Development would involve remedial grading, paving, building construction, and architectural coating. While construction equipment would not be in operation in all areas of the Specific Plan for the entire duration of construction, in total construction activities are expected to be underway for approximately 4.5 years.

Campus Development construction would require the use of large construction equipment that would be visible from surrounding areas looking towards the Campus Development site. Equipment and vehicles such as large trucks, cranes, and bulldozers would be visible from surrounding areas. Staging of construction equipment and construction activities would be implemented according to March JPA Development Code Section 9.08.180, Storage, regarding the storage of construction equipment and building materials. While tall equipment, such as cranes, would present a vertical profile that would rise above the Campus Development site, the height of construction equipment would not permanently obstruct views of any scenic vista. The maximum height of proposed buildings would not exceed 50 feet (buildings within 800 feet of residential uses are limited to a maximum height of 45 feet), which is the maximum height of buildings that would be allowed under the proposed Specific Plan. Construction equipment would be staged and operated inside the proposed Campus Development area, which would remain surrounded by the proposed Conservation Easement. Therefore, the construction equipment would be at least 300 feet from any potential viewpoints. The 445.43-acre Conservation Easement would provide visual relief from the construction equipment by providing a buffer of at least 300 feet from potential viewpoints.

As discussed in Section 4.1.1, the Campus Development site has a mix of relatively flat areas and some undulating topography. The surrounding area is mostly developed with existing residential, commercial, and industrial uses. Nearby residential development to the west of the Campus Development site intervenes and block views of San Bernardino Mountain Range and its foothills to the east. The mountainous terrain is partially visible from viewpoints south of the Campus Development site in the Orangecrest neighborhood, including a segment of Barton Drive, adjacent to the Grove Community Church. Potential views of the San Bernardino Mountain Range and its foothills would not be obscured by construction equipment due to the fact they would be staged and operated over 300 feet from public view; construction equipment would not be in place in all areas of the construction area during the entirety of the duration of construction. Furthermore, as discussed in Section 4.1.1, many potential views of these foothills from the Campus Development area are blocked by existing intervening residential development..

Construction would require the presence of construction workers and vehicles that would be mobilized on site; the presence of workers and duration of construction activities would last approximately 4.5 years over two phases. Construction activities would occupy portions of the Project site but the limited available views of the mountainous terrain in the surrounding area would remain visible and would not be substantially screened or blocked for the reasons described above. However, even considering these factors, large construction equipment and vehicles may be visible from public vantage points, at distances over 300 feet, surrounding the Project site such that potentially significant visual impacts from surrounding areas could occur. Implementation of mitigation measure **MM-AES-1** requires that the construction contractor minimize the visual presence of large construction equipment and vehicles on site. This mitigation measure requires the construction contractor to stage large equipment outside of the public viewshed when not in use; this shall be achieved by establishing staging areas behind existing topographical features such as hill formations or erecting fences to conceal the equipment. As such, because construction equipment would not be located within 300 feet of public view, would not be in place in all areas during the entirety of construction, and would be required to be screened when not in use pursuant to **MM-AES-1**, Campus Development construction activities would not have a substantial adverse impact on scenic vistas; therefore, impacts would be **less than significant with implementation of mitigation**.

Operation

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Campus Development would include Buildings B and C on two of the Industrial Parcels and development on the remaining parcels as allowed under the Specific Plan. In accordance with the proposed development standards under the Specific Plan, development would have a maximum building height of 50 feet (buildings within 800 feet of residential uses are limited to a maximum height of 45 feet). The existing elevation of the Project site ranges from 1,780 feet AMSL at the center of the site to approximately 1,640 feet AMSL and 1,560 AMSL along the western and eastern portions of the site, respectively. According to grading plans, after the Specific Plan Area is graded, Campus Development buildings would be built on level sites that with finished floor elevations ranging from 1,702 AMSL to 1,731 AMSL (Appendix B). Therefore, assuming the maximum building height of 50 feet, Campus Development buildings, as a worst-case scenario, would have a maximum building height elevation as high as 1,781 AMSL. Surface parking, roadway improvements, and landscaping are also proposed and would be introduced to the Specific Plan Area. As discussed above in Section 4.1.1, the Specific Plan Area is located outside of but adjacent to the existing Meridian West Campus Lower Plateau industrial project, located within the March JPA planning area, to the east; and two new industrial buildings, located in Riverside County, are to the east and north. Under the Specific Plan, buildings would be constructed with similar uses displaying comparable bulk and scale, and as such, Campus Development would be a continuation of the Office/Industrial visual character of existing development to the east and along the I-215 corridor. Furthermore, Campus Development would have similar maximum building height elevations as existing development in the immediately surrounding area and be required to comply with **PDF-AES-1**, which requires compliance with the Specific Plan Design Standards that are intended to minimize visual obstructions and maximize visual compatibility.

To visually identify anticipated changes from public viewpoints surrounding the Campus Development, and to specifically identify if the Campus Development would have a substantial adverse effect on a scenic vista, visual simulations were prepared from five key vantage points; these are shown in in Figures 4.1-3 through 4.1-7. According to the March JPA General Plan, areas looking east and northeast of the March JPA Planning Area and residential areas located in the City of Riverside's Orangecrest and Mission Grove neighborhoods toward the San Bernardino Mountain Range and its foothills offer scenic vistas (March JPA 1999a). As such, Viewpoints No. 3 and No. 4 are representative of views towards the Campus Development from public streets that are available to traveling motorists and residents and are evaluated herein.

Viewpoint No. 3

Viewpoint No. 3 is located approximately 0.3 miles southwest of the Campus Development area. Under existing conditions, this viewpoint offers distant views of the San Bernardino Mountain foothills to the northeast. These views, which are identified by the Scenic and Viewshed Areas map from the March JPA General Plan, would be partially screened by the proposed Campus Development; specifically, as shown in the photosimulation (see Figure 4.1-5) from this viewpoint, only parts of base of the San Bernardino Mountain foothills would be screened and view of the majority of the foothills (including its peaks) would be maintained.

From this viewpoint, the Project's proposed Conservation Easement and Campus Development area are visible in the background and the neighboring Grove Community Church and parking lot are visible in the foreground. The photosimulation from this viewpoint also depicts Mixed Use development along with shrub and tree landscaping in front of the development. Views of the Campus Development's Mixed Use buildings would be available from Viewpoint No. 3; approximately the top 20 feet of the proposed 50-foot maximum height buildings would be visible, with the remainder partially screened by landscaping, shrubs, and trees.

Under existing conditions, Viewpoint No. 3 offers a generally clear northeastward view to the San Bernardino Mountain foothills, that are experienced by traveling motorists as well as pedestrians along Community Grove Road. Overall, as evident from the photosimulation from Viewpoint No. 3, the Campus Development would partially block views of lower portions of mountainous terrain; however, the Campus Development would not screen the majority of views of the San Bernardino Mountain Range. These views, including the peaks of the mountains and foothills, would remain primarily unobstructed.

Because Campus Development would not fully conceal and/or obstruct scenic features from the view of motorists and pedestrians traveling in the Project vicinity, because the Campus Development would not physically alter or otherwise modify local hills and mountainous terrain, and because Campus Development would comply with **PDF-AES-1**, the Campus Development would not have a substantial adverse effect on a scenic vista from Viewpoint No. 3.

Viewpoint No. 4

Viewpoint No. 4 is located approximately 1,000 feet south of the Campus Development area. With implementation of the Campus Development, there would be distant views of the Business Park and Mixed Use buildings. Viewpoint No. 4 is located in the Orangecrest neighborhood, which has a higher elevation than the Project site. Therefore, views of the locally prominent San Bernardino Mountain Range and its foothills to the north of the Project site are visible in the background under existing conditions. From Viewpoint No. 4, the Conservation Easement is visible in the foreground. Viewpoint No. 4 also shows that renderings of Campus Development buildings, with a maximum height of 50 feet (as allowed under the Specific Plan; buildings within 800 feet of residential uses are limited to a maximum height of 45 feet), would be partially screened by proposed landscaping and trees. Overall, the Campus Development would not screen views of the San Bernardino Mountain Range and its foothills in the background; therefore, these views, including the peaks of the mountains and foothills, would remain unobstructed.

Conclusion

As depicted on the photosimulations of Viewpoints No. 3 and No. 4, these views are oriented in a north and northeasterly direction towards the identified scenic vista of the San Bernardino Mountain Range and its foothills; therefore, the proposed Campus Development is capable of partially blocking mountainous terrain in the surrounding area from some locations. As discussed above, while the proposed Campus Development has the potential to partially block views of the lower portions of mountainous terrain, the tallest structures visible from Viewpoint No. 3 and No.4 would have a maximum building height of 50 feet and would display comparable bulk and scale as existing development in the vicinity of the Campus Development area. Therefore, while the proposed Campus Development could partially block views of lower portions of mountainous terrain, it would be visually consistent with surrounding development in the background of the Project site. Furthermore, as discussed below, the Project would establish a445.43-acre Conservation Easement surrounding the entire perimeter of the Specific Plan Area; this area would provide visual relief from Campus Development for residential areas and serve to buffer visual changes to the lower portions of mountainous terrain to the north and northeast. This Conservation Easement, which is depicted in Viewpoint No. 3 and No. 4, would retain open space around the Campus Development area.

Because the Project would not fully block scenic views of mountainous terrain to the north/northeast from Viewpoint No. 3 and No. 4, the bulk and scale of the Campus Development would be consistent with the surrounding area, Campus Development would comply with **PDF-AES-1,** and a Conservation Easement would be established around the perimeter

of the Specific Plan Area, potential aesthetic impacts to scenic vistas would be minimized. For these reasons, impacts associated with the Campus Development would be **less than significant**, and no mitigation is required.

Park

Construction

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. Construction activities related to the Park would involve introducing heavy machinery to the Park site for grading and development of recreational facilities and amenities. Staging of construction equipment and construction activities would be implemented according to March JPA Development Code Section 9.08.180, Storage, regarding the storage of construction equipment and building materials. Construction equipment would be of smaller scale than that used for the Campus Development. Furthermore, impacts associated with Park construction would be shorter duration than what was analyzed for the Campus Development as this construction would be one component of the overall buildout of the Specific Plan Area.

As discussed above for construction of the Campus Development, the height of construction equipment would not permanently obstruct views of any scenic vista. Construction equipment for Park construction would be staged and operated inside the proposed Specific Plan Area, which would be buffered by the proposed Conservation Easement. Therefore, the construction equipment would be at least 300 feet from any potential viewpoints; the proposed Conservation Easement would provide visual relief from the construction equipment. Furthermore, equipment would not be in place in all areas of the construction area during the entire duration of construction. Implementation of **MM-AES-1** would require the construction contractor to stage large equipment outside of the public viewshed when not in use; this shall be achieved by establishing staging areas behind existing topographical features such as hill formations or erecting fences to conceal the equipment.

As stated above, visual impacts of construction of Park facilities would be comparatively less than the construction of the Campus Development. Nonetheless, because construction equipment would not be located within 300 feet of public view, would not be in place in all areas during the entirety of construction, and would be required to be screened when not in use as required by **MM-AES-1**, construction activities for Park facilities would not have a substantial adverse impact on scenic vistas. Impacts associated with construction of the recreational facilities and amenities associated with the Park would be **less than significant with implementation of mitigation.**

Operation

As analyzed herein, the Park would include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The Park design would be required to comply to the proposed Specific Plan's design guidelines.

The proposed recreational amenities do not include large, bulky structures that would have substantial vertical features or massing. While vertical lighting poles would exist to provide nighttime lighting to the multiuse sports fields, the relatively slim nature of vertical light poles would not create view blockages. Project lighting, including these vertical lighting poles, would be compliant with outdoor lighting standards and requirements contained within the Design Guidelines proposed under the proposed Specific Plan. Accordingly, the design of lighting poles would be required to adhere to **PDF-AES-16** which limit the height of these poles to 50 feet and require them to be located

over 450 feet from residences. Adherence to this PDF would further reduce the slim profile of the proposed vertical light poles from off-site viewpoints. For these reasons, once operational, the Park (and proposed light poles) would not block scenic views of mountainous terrain. The Park would also be consistent with surrounding residential uses to the north, south, and west and provide a visual amenity for residents. Furthermore, because the proposed Park would not contain structures with substantial visual features or massing, the area would provide additional visual relief and buffer for the Campus Development. As such, operational impacts associated with the proposed Park would be **less than significant**, and no mitigation is required.

Infrastructure Improvements

Construction

Infrastructure improvements associated within the proposed Project would include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 MG reclaimed water tank.

Construction activities related to infrastructure improvements would introduce machinery for grading, trenching, and construction of the proposed utility facilities. As noted above, staging of construction equipment and construction activities would be implemented according to March JPA Development Code Section 9.08.180, Storage, regarding the storage of construction equipment and building materials. Construction equipment for infrastructure improvements would be generally of smaller scale than that used for the Campus Development. Furthermore, visual impacts associated with infrastructure construction would be shorter duration than what was analyzed above for the total buildout of Campus Development.

Because the installation of utility and roadway networks would take place either at or below ground level, associated construction equipment would not be present a substantial vertical profile. The construction of the new sewer lift station and electrical substation may require equipment that presents a vertical profile, such as a crane; however, because these buildings would be smaller scale and height than the Campus Development, the height of construction equipment would be comparatively shorter. The new 0.5 MG reclaimed water tank would be constructed on an existing pad adjacent to an existing WMWD water tank. The new tank would be smaller and size and scale than the existing tank and would be constructed on a site that does not current provide views of the Specific Plan Area and surrounding vicinity. As discussed above for the construction of the Campus Development, the height of construction equipment would not permanently obstruct views of any scenic vista. Furthermore, although unlikely, if infrastructure improvements require the use of large equipment and vehicles, this construction activity would be subject to implement **MM-AES-1**. As described above, this would require large construction equipment and vehicles to be screened from public view when not in use. For these reasons, construction of infrastructure improvements would not obstruct views of any scenic vista. Impacts associated with the construction of infrastructure improvements would be **less than significant with implementation of mitigation**.

Operation

As analyzed herein, two Public Facility parcels, collectively totaling 2.84 acres, would be developed with a sewer lift station and an electrical substation. These facilities would be located along the eastern edge of the Specific Plan Area, immediately to the south and east of a 9.14-acre Business Park parcel. As discussed above, a new 0.5 MG reclaimed water tank is also proposed directly south of the Project site along Grove Community Drive and immediately adjacent to an existing, and larger, water storage tank.

Once operational, utility and roadway networks would be located either at or below ground level, and therefore would not be present a vertical profile. The height of the sewer lift station and electrical substation would be substantially less than the adjacent 50-foot-tall Campus Development structures. Therefore, these improvements would not obstruct views of any scenic vista. While the utility structures and water tank have a vertical profile, they would be specifically out of the view from Viewpoint No. 3 and No. 4, which represent views towards the San Bernadino Mountain Range and its foothills. Once operational, the infrastructure improvements would be sited out of public viewpoints due to intervening site topography and adjacent Campus Development. Furthermore, the new 0.5 MG reclaimed water tank would not obstruct views from a scenic vista because the location of the future tank is surrounded by existing landscaping and a mature tree canopy that screens the site views off Grove Community Drive. As such, visual impacts associated with the operation of the infrastructure improvements would be **less than significant**, and no mitigation is required.

Conservation Easement

The Conservation Easement would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. The currently existing service roads within the Conservation Easement, as depicted by the red lines on Figure 3-4, would continue to be utilized by the public for passive recreation, consistent with the terms of the CBD Settlement Agreement (Appendix S). No new development would occur within this area, and the Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). Furthermore, as discussed above, the Conservation Easement would provide additional visual relief and buffer for the Specific Plan Area for residential areas. For this reason and because no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to scenic vistas.

Threshold AES-2. 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.)

Specific Plan Area

Campus Development

The Specific Plan Area is located within a non-urbanized area, per the Southern California Association of Governments Region U.S. Census Urbanized Areas map (SCAG 2017) and as defined in Public Resources Code Section 21701 and CEQA Guidelines Section 15387. According to the CEQA Guidelines, an Urbanized Area is defined by a central city or group of contiguous cities with a population of 50,000 or more, with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. The Specific Plan Area, which contains approximately 818 acres and no current population, is within the County of Riverside, which is a jurisdiction that does not have a population density that meets this criterion. According to the United States Census Bureau, Riverside County has an estimated population of approximately 2,400,000 as of 2021; because the County covers approximately 7,303 square miles, the population density of the Riverside County is approximately 320 persons per square mile, which is below threshold set by CEQA that defines an area as urbanized (U.S. Census 2021).

Campus Development would increase the developed quality of the area given that the majority of the Campus Development area is currently undeveloped. However, building design standards, including height, massing, setbacks, and colors/materials would be regulated under Chapter 4, Design Guidelines, of the Project's proposed Specific Plan. Specifically, Campus Development would be characterized by simple and distinct cubic masses with

interlocking wall planes, colors, and materials. Also, exterior building colors would be light and gray tones with use of stone, glass windows, or steel materials. These design elements would be compatible in character, massing, and materials to existing similar development in the vicinity. Furthermore, building materials used on building exteriors would be similar to building materials incorporated into existing development in the Project vicinity. The Specific Plan would require that future development be similar in design and scale to the adjacent Industrial development along the I-215 corridor by incorporating similar architectural design and accents displayed by existing development and through the use of similar building materials.

To further characterize the change in visual character with implementation of the Project, photosimulations were prepared. The following analysis describes photosimulations of the proposed Campus Development from Viewpoints No. 1 and No. 2; note that prior analysis of photosimulations for Viewpoints No. 3 and No. 4 is presented under Threshold AES-1 above. Viewpoint No. 5 does not offer views of the proposed Campus Development due to intervening topography and therefore is not applicable to this impact analysis. These photosimulations are shown within Figures 4.1-3 through 4.1-7.

Viewpoint No. 1

From the Viewpoint No. 1, as shown in Figure 4.1-3, the photosimulation of proposed conditions depicts Campus Development and demonstrates that the open space and Conservation Easement are visible. Campus Development would also be visible in the foreground of Viewpoint No. 1. Business Park structures, which are depicted at their allowed maximum building height of 50 feet(buildings within 800 feet of residential uses are limited to a maximum height of 45 feet), are shown with a long rectangular form spanning east to west. These structures are depicted as sited approximately 600 feet south of Viewpoint No. 1 and would screen potential views of warehouses proposed at the center of Specific Plan Area. Viewpoint No. 1 also depicts tree and shrub landscaping in the foreground that would partially screen (approximately half the height) of the proposed Campus Development once the trees are fully matured. While the views of the proposed Campus Development are partially detectable above the landscaping, these structures would not significantly alter the character of the landscape and surrounding area. As discussed, surrounding Industrial uses are visible in the Project vicinity. While the Campus Development would convert undeveloped land into a developed state, setbacks, the Conservation Easement, compliance with **PDF-AES-1**, and landscaping would soften the changes in the view by partially screening Campus Development and retaining views of vegetation.

Viewpoint No. 2

The Viewpoint No. 2, as shown in Figure 4.1-4, photosimulation depicts the proposed Campus Development, as well as the Conservation Easement, Barton Street extension, and landscaping. The photosimulation depicts the proposed Conservation Easement in the foreground; the Barton Street extension is also shown as improved with shrub and tree landscaping in the foreground. The Campus Development is visible beyond the open space and behind proposed landscaping. The Mixed Use structures, depicted at the maximum allowed building height of 50 feet (buildings within 800 feet of residential uses are limited to a maximum height of 45 feet), is sited approximately 300 feet south of Viewpoint No. 2 and shown with a long rectangular form spanning across the view from northeast to southwest. Proposed landscaping and trees would partially screen (approximately half the height) of the Mixed Use structures once vegetation and trees have matured.

Conclusion

For these reasons, and through compliance with **PDF-AES-1**, Campus Development would not degrade the existing visual character of the project site or its surroundings. In conclusion, impacts to visual character related to Campus Development are **less than significant**, and no mitigation is required.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The proposed Park amenities do not include structures that would degrade potential views. Furthermore, a portion of the Park would be maintained as recreational open space. The Park would include sports field lighting poles that would be a maximum of 50 feet in height, as required by **PDF-AES-15**. These poles would be interspersed throughout the Park surrounding the proposed multiuse sports fields. While these poles represent a vertical profile, they would not degrade potential views of the surrounding because they would be sited at least 450 feet from the Project Site's boundary.

As discussed under Threshold AES-1 above, the Park would also be consistent with surrounding residential uses to the north, south, and west of the Specific Plan Area. The design of the new Park would be required to comply to the proposed Specific Plan's design guidelines which are intended to create a consistent visual character with the Specific Plan Area and surrounding area. As such, Park development would not degrade the existing visual character of the Project site or its surroundings. In conclusion, Park impacts to visual character are **less than significant,** and no mitigation is required.

Infrastructure Improvements

As detailed under Threshold AES-1, the Specific Plan includes roadway and utility network improvements, two Public Facility parcels that would be developed with a sewer lift station and an electrical substation, as well as a new off-site reclaimed water tank. Utility and roadway networks would be located either at or below ground level, and therefore would not detract from the existing visual character. These improvements would be of similar visual character as roadways and utilities networks in the Project vicinity. Because they are located at or below ground level, these networks would not obstruct public views.

As discussed above, while the utility structures have a vertical profile, they would be located out of the Project viewshed due to intervening site topography and Campus Development. Both the sewer lift station and electrical substation would be shielded and screened from by masonry block walls that are consistent with other masonry block walls used throughout March JPA and what would be implemented within the Specific Plan Area, as stipulated by the Specific Plan.

The proposed 0.5 MG reclaimed water tank would be constructed adjacent to an existing, larger scale water storage tank, at a location that is surrounded by existing landscaping and a mature tree canopy. This would continue to screen potential views off Grove Community Drive. Therefore, the new reclaimed water tank would not represent a significant change in visual character. For these reasons, impacts to visual character associated with the proposed infrastructure improvements would be **less than significant**, and no mitigation is required.

Conservation Easement

As discussed under Threshold AES-1, the Conservation Easement would provide a buffer of open space on all sides of the Specific Plan Area. The currently existing service roads within the Conservation Easement, would continue to be utilized by the public for passive recreation, consistent with the terms of the CBD Settlement Agreement (Appendix S). No new development would occur within the Conservation Easement. Furthermore, as discussed above, the Conservation Easement would provide additional visual relief and buffer for the Project for surrounding residential areas. For this reason and because no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to the visual character or quality of scenic views of the site and its surroundings.

Threshold AES-3. Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Specific Plan Area

Campus Development

Nighttime Lighting

Portions of the Campus Development area have been previously disturbed with some existing structures related to previous operations for munitions storage by the Air Force. However, these structures do not contain lighting or reflective building materials. As discussed above, there is lighting in the surrounding area consisting of streetlights and vehicle lights on nearby roads and I-215, interior and exterior lighting (including parking lot lighting) associated with existing land uses to the east and north, residential land uses in the Orangecrest and Mission Grove neighborhoods, and tall sports lighting installed at Orange Terrace Park and the Grove Community Church. Commercial uses along East Alessandro Boulevard also contribute lighting to the existing nighttime environment.

Campus Development would introduce new lighting sources, including exterior and interior building lighting, entryway, and parking lot lighting, to the site and surrounding area that could represent potentially significant impacts to nighttime views. However, Campus Development lighting is anticipated to be of a similar intensity of lighting located on and near existing structures in the vicinity. Campus Development lighting would be compliant with outdoor lighting standards and requirements contained within the Design Guidelines proposed under the proposed Specific Plan; development within the Specific Plan would be required to adhere to the following, through the implementation of the following PDFs: **PDF-AES-2**, **PDF-AES-3**, **PDF-AES-4, PDF-AES-5, PDF-AES-6, PDF-AES-7, PDF-AES-8, PDF-AES-9, PDF-AES-10**, **PDF-AES-11, PDF-AES-12, PDF-AES-13, PDF-AES-14, PDF-AES-15, and PDF-AES-16** (see full text of all PDFs in Section 4.1.3).

Furthermore, the Campus Development would be subject to regulations related to lighting in the March JPA Development Code wherever the issue is not covered by the Specific Plan. Where applicable, the Campus Development would be regulated by Section 9.08.100, Lighting, light and glare performance standards established in Section 9.10.110, Light and Glare, and Chapter, 9.13, Landscape Requirements. While Section 9.08.100 specifically relates to permitted lighting and design guidelines associated with Campus Development lighting, Chapter 9.13, Landscape Requirements, is in part intended to reduce Project-generated light and glare through incorporation of street trees at entryways, along parking lot edges and public right-of-way frontage, within setback areas, and along the boundary of a non-residential site when adjacent to residential site. Section 9.10.110, Light and Glare requires that all lighting shall be designed to project downward and shall not create glare on adjacent properties.

While an exterior point-by-point photometric study has not yet been prepared for the Campus Development, implementation of **MM-AES-2** requires the Project applicant to submit a photometric study as part of the building permit application that is subject to March JPA review and approval. The study shall demonstrate compliance with the March JPA Development Code, Specific Plan, and PDFs detailed above as applicable. **MM-AES-2** would ensure Campus Development-generated lighting would not result in the introduction of a new source of substantial light which would adversely affect nighttime views in the area. With the implementation of **MM-AES-2**, Campus Development nighttime lighting impacts would be **less than significant with implementation of mitigation**.

Glare

As described in Section 4.7, Greenhouse Gas Emissions, of this EIR, **MM-GHG-1** requires that the Project install solar photovoltaic (PV) electricity generation sufficient to generate 15,300,347 kilowatt-hours per year, which represents at least 30% of the Specific Plan Area's power requirements. Solar panels are expected to be installed on building rooftops. There is the potential for these solar panels to result in significant glare impacts to the neighboring properties and roadways. As such, in order to avoid potentially significant glare-related impacts, **MM-AES-3** requires use of anti-reflective coatings on the PV panels; this measure also requires that the Project Applicant submit a glint and glare study to be approved by March ARB that analyzes potential effects the system(s) could have on aviation. Implementation of this mitigation measure would reduce impacts associated with glare from solar panels to a **less than significant level**.

Conclusion

For these reasons, through the implementation of **PDF-AES-2** through **PDF-AES-16** as well as **MM-AES-2** and **MM-AES-3**, the Campus Development would not result in the introduction of a new source of substantial light or glare which would adversely affect daytime and/or nighttime views in the area. As such, impacts would be **less than significant with mitigation**.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The Park would include sport lighting poles that would be up to 50 feet in height. These poles would be interspersed throughout the Park in order to provide nighttime lighting for the sports fields. The poles would be sited at least 450 feet from the Project site's boundary, as required by **PDF-AES-16**.

To demonstrate proposed light levels on the Park site and potential spillover to off-site areas, including neighboring residences, a photometrics plan was prepared for the Park playing fields (Appendix B). The photometric plan includes the proposed playing fields in plan view and places the proposed light poles at their proposed locations. Light pole heights, fixture and array mounting heights, wattage of individual luminaires, inclusion of glare shields, and precision directional positioning of luminaires is included in the photometrics plan software. The output (i.e., the photometrics plan) depicts lighting levels in foot-candles at the finished site surface approximately 30 feet on center in a grid pattern throughout the playing fields area. The intent of the photometrics plan is to demonstrate the provision of adequate illumination on the playing surface. The photometric plan also demonstrates the effects of distance on light levels from the source (i.e., light arrays/field lights) and depicts light levels in foot-candles at the site property line.

As shown in the photometric plans (Appendix B), the proposed sports lighting would lead to very low horizontal and vertical FC levels (less than 0.25 FC) around the proposed playing fields. The photometric plans also indicate that there would be very low light levels outside the boundary of the Park (0.0 horizontal and vertical FC). Given the information presented above, light levels beyond the Park boundaries would be very low (0.0 foot-candles). Therefore, the Park's nighttime lighting impacts would be **less than significant**, and no mitigation is required.

Infrastructure Improvements

Components of the infrastructure improvements would introduce new nighttime lighting sources to the site and surrounding area. The sewer lift station, electrical substation, and roadway improvements would include exterior lighting for security and navigational purposes. However, as noted above, lighting associated with infrastructure improvements is anticipated to be of a similar intensity of lighting located on and near existing structures in the vicinity. Lighting would be compliant with outdoor lighting standards and requirements contained within the Design Guidelines proposed under the proposed Specific Plan. Infrastructure improvements would also be required to implement PDFs described above under 'Campus Development'. Furthermore, as specified above, the infrastructure improvements would also be subject to regulations related to lighting in the March JPA Development Code wherever the issue is not covered by the Specific Plan. Implementation of **MM-AES-2**, as described above, would ensure the Project's infrastructure improvements would not result in the introduction of a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area. As such, impacts would be **less than significant**, and no mitigation is required.

Conservation Easement

As discussed under Thresholds AES-1 and AES-2, the Conservation Easement would provide a buffer of open space on all sides of the Specific Plan Area. The currently existing service roads within the Conservation Easement, would continue to be utilized by the public for passive recreation, consistent with the terms of the CBD Settlement Agreement (Appendix S). No new development would occur within the Conservation Easement; therefore, the Conservation Easement would not include new lighting or structures that could cause nighttime lighting or daytime glare impacts. For this reason and because no physical alteration to the Conservation Easement is anticipated, there would be **no impact** related to light or glare.

4.1.6 Mitigation Measures

The following mitigation measures are required to reduce potentially significant aesthetic impacts to less than significant levels.

MM-AES-1 **Construction Equipment Staging and Screening.** The Project Applicant and their construction contractor shall stage large construction equipment and vehicles, including large trucks, cranes, and bulldozers, outside of the public viewshed when not in use. Staging areas shall be concealed by existing intervening topographical or natural features such as hill formations. If it is not possible for the construction contractor to stage equipment behind topographical/natural features, staging areas shall be concealed by fence screening and/or berming. If fencing is used, it shall be covered by a vinyl tarp or comprised of slatted chain links to screen potential views of construction.

MM-AES-2 **Exterior Lighting Point-by-point Photometric Study Approval.** Prior to the issuance of a building permit for Campus Development or Infrastructure Improvements, an exterior point-by-point photometric study shall be submitted to March JPA for review and approval demonstrating

compliance with PDF-AES-1 through PDF-AES-16 the March JPA Development Code, and the Specific Plan. The photometric study shall document the location, quantity, type, and luminance of all fixtures proposed on the Project site.

MM-AES-3 **Solar Photovoltaic System Approval.** The design of solar photovoltaic system(s) shall be reviewed and approved by the Airport Land Use Commission and March Air Reserve Base (ARB) personnel prior to the issuance of building permits. In doing so, the Project Applicant shall submit a glint and glare study to be approved by the Airport Land Use Commission and March ARB that analyzes potential effects the system(s) could have on aviation. The Project Applicant shall demonstrate that the solar panels and hardware are designed to minimize glare and spectral highlighting. Technologies shall be used, such as diffusion coatings and nanotechnological innovations to effectively reduce the refractive index of the solar cells and protective glass.

4.1.7 Level of Significance After Mitigation

The Project would result in a **less than significant impact** to aesthetics with the implementation of **MM-AES-1** through **MM-AES-3** as well as **PDF-AES-1** through **PDF-AES-16**.

4.1.8 Cumulative Effects

The Project would comply with the March JPA's development standards and guidelines to ensure visual compatibility. Development standards include site area, lot dimensions, building height, building setbacks, and parking requirements in order to establish the relationship between building mass and scale. Refer to Section 4.10, Land Use and Planning, for the Project's compliance with the March JPA's development standards.

While Project implementation would change the immediate area's visual character, the larger visual context east and south of the Project site includes a mixture of uses, including residential, recreational, business park, and industrial warehouse development. As stated previously, the Project would be consistent with the larger visual context of the surrounding area. Similarly, cumulative projects, shown on Table 4-2 and Figure 4-1 of Chapter 4 of this EIR, would introduce a mixture of industrial, business park, and mixed-use land uses. Development of the related projects would contribute to the overall character and quality of the surrounding area once developed. Building materials, bulk, scale, and setbacks for each cumulative project would be required to comply with their applicable jurisdiction's (i.e., March JPA, City of Riverside, County of Riverside, City of Moreno Valley) development standards and guidelines regarding visual character. Compliance with each jurisdiction's General Plan, Municipal Code, and any specific plans as it relates to design standards and scenic quality would minimize potential impacts of incompatibility with existing character or quality. As discussed under Impact AES-3, the Project could result in potentially significant light and glare impacts prior to mitigation that have the potential to contribute to cumulatively considerable impacts to the Project vicinity. However, implementation of the recommended mitigation measures (**MM-AES-2** and **MM-AES-3**) would reduce the Project's individual contribution of light and glare impacts to a less-than-significant level; therefore, the Project's light and glare impact would not result in cumulatively considerable impacts. For these reasons, implementation of the proposed Project, in addition to the identified related projects identified in Chapter 4, Environmental Analysis, **would not result in cumulatively considerable impacts** to visual character.

4.1.9 References Cited

Caltrans (California Department of Transportation). 2021. "List of Eligible and Officially Designated State Scenic Highways." Accessed July 27, 2021. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways.

March JPA (Joint Powers Authority). 1999a. *General Plan of the March Joint Powers Authority*. Accessed August 16, 2021. https://www.marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

March JPA. 1999b. Master Environmental Impact Report for the General Plan of the March Joint Powers Authority.

SCAG (Southern California Association of Governments). 2017. "U.S. Census Urbanized Areas" [interactive map]. June 2017. Accessed July 27, 2021. http://gisdata-scag.opendata.arcgis.com/datasets/197b33d52add4c73b6fd3bad46cff0c0_0

U.S. Census (United States Census Bureau). 2021. QuickFacts. Accessed September 28, 2022. https://www.census.gov/quickfacts/fact/table/riversidecountycalifornia/PST045221

SOURCE: March Joint Powers Authority-General Plan Report

DUDEK

0 1,750 3,500 Feet

FIGURE 4.1-1

March JPA General Plan - Scenic and Viewshed Areas

West Campus Upper Plateau EIR

INTENTIONALLY LEFT BLANK

SOURCE: Bing Maps, 2022

FIGURE 4.1-2

Key Points Viewpoint Map

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

PROPOSED

EXISTING

FIGURE 4.1-3

Viewpoint No. 1 Photosimulation

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

PROPOSED

EXISTING

FIGURE 4.1-4

Viewpoint No. 2 Photosimulation

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

PROPOSED

EXISTING

FIGURE 4.1-5

Viewpoint No. 3 Photosimulation

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

PROPOSED

EXISTING

FIGURE 4.1-6

Viewpoint No. 4 Photosimulation

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

PROPOSED

EXISTING

FIGURE 4.1-7

Viewpoint No. 5 Photosimulation

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

4.2 Air Quality

This section describes the existing air quality conditions of the proposed West Campus Upper Plateau Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Project.

This analysis is based on emission calculations and California Emissions Estimator Model (CalEEMod) outputs presented in the Air Quality Technical Report (Appendix C-1) and Health Risk Assessment Technical Report (Appendix C-2).

As discussed in detail in Chapter 3, Project Description of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.2.1 Existing Conditions

The Project site is partially developed as a former military weapons storage/bunker facility and is presently used as a commercial storage facility for pyrotechnics. The site is located within the South Coast Air Basin (SCAB) under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB is characterized as having a Mediterranean climate (typified as semiarid with mild winters, warm summers, and moderate rainfall). The SCAB is a 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. It includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties.

Climate and Meteorology

The SCAB generally lies in the semi-permanent, high-pressure zone of the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the SCAB is a function of the area's natural physical characteristics (e.g., weather and topography) and

human-made influences (e.g., development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of pollutants throughout the SCAB.

Climate

Moderate temperatures, comfortable humidity, and limited precipitation characterize the climate in the SCAB. The average annual temperature varies little throughout the basin, averaging from the low to middle 60s°F. However, with a less pronounced oceanic influence, the eastern inland portions of the SCAB show greater variability in annual minimum and maximum temperatures. All portions of the SCAB have recorded temperatures of greater than 100°F in recent years. Although the SCAB has a semiarid climate, the air near the surface is moist because of the presence of a shallow marine layer. Except for infrequent periods when dry air is brought into the SCAB by offshore winds, the ocean effect is dominant. Periods with heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climate feature. Annual average relative humidity is 71% at the coast and 59% in the eastern part of the SCAB. Precipitation in the SCAB is typically 9 to 14 inches annually and is rarely in the form of snow or hail, due to typically warm weather. The frequency and amount of rainfall is greater in the coastal areas of the SCAB. March Air Reserve Base, located proximate to the Project site, is an area that is characterized by relatively low rainfall, with warm summers and mild winters. Average temperatures range from a high of 95°F in July to a low of 40°F in December (WRCC 2022).

Sunlight

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain "primary" pollutants (mainly reactive hydrocarbons and oxides of nitrogen [NO_x]) react to form "secondary" pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind of the emission sources. Due to the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of Southern California.

Temperature Inversions

Under ideal meteorological conditions and irrespective of topography, pollutants emitted into the air mix and disperse into the upper atmosphere. However, the Southern California region frequently experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The inversion, a layer of warm, dry air overlaying cool, moist marine air, is a normal condition in coastal Southern California. The cool, damp, and hazy sea air capped by coastal clouds is heavier than the warm, clear air, which acts as a lid through which the cooler marine layer cannot rise. The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above mean sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet above mean sea level, the terrain prevents the pollutants from entering the upper atmosphere, resulting in the pollutants settling in the foothill communities. Below 1,200 feet above mean sea level, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the daylight hours. Mixing heights for inversions are lower in the summer and inversions are more persistent, being partly responsible for the high levels of ozone (O_3) observed during summer months in the SCAB. Smog in Southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods, allowing them to form secondary pollutants by reacting in the presence of sunlight. The SCAB has a limited ability to disperse these pollutants due to typically low wind speeds and the surrounding mountain ranges.

The Project site is located in an area that is susceptible to air inversions. This traps a layer of stagnant air near the ground where pollutants are further concentrated. These inversions produce haziness, which is caused by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources.

4.2.1.1 Air Quality Characteristics

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion for the pollutants. Reduced visibility, eye irritation, and adverse health impacts on people who are deemed sensitive receptors are the most serious hazards that can result from changes in existing air quality conditions in the area. 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, older adults, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993).

The Project site is located within the Source Receptor Area (SRA) 23 – Metropolitan Riverside County. Within SRA 24, the SCAQMD Metropolitan Riverside County 1 monitoring station is located 8.4 miles northwest of the Project site and is the nearest long-term air quality monitoring site for O_3, carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter with an aerodynamic diameter equal to or less than 10 microns (PM_{10}), and particulate matter with an aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$).

The most recent 3 years of data available are shown in Table 4.2-1 and identify the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Project site. Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ for 2018 through 2020 was obtained from the SCAQMD Air Quality Data Tables (SCAQMD 2021a). Data for SO_2 has been omitted since attainment is regularly met in the SCAB and few monitoring stations measure SO_2 concentrations.

Table 4.2-1. Project Area Air Quality Monitoring Summary 2018–2020

Pollutant	Standard	Year		
		2018	*2019*	*2020*
O_3				
Maximum Federal 1-Hour Concentration (ppm)	N/A	0.123	0.123	0.143
Maximum Federal 8-Hour Concentration (ppm)	N/A	0.101	0.096	0.115
Number of Days Exceeding State 1-Hour Standard	>0.09 ppm	22	24	46
Number of Days Exceeding State/Federal 8-Hour Standard	>0.070 ppm	53	59	81
CO				
Maximum Federal 1-Hour Concentration	>35 ppm	2.2	1.5	1.9
Maximum Federal 8-Hour Concentration	>20 ppm	2.0	1.2	1.4
NO_2				
Maximum Federal 1-Hour Concentration	>0.100 ppm	0.055	0.056	0.066
Annual Federal Standard Design Value	N/A	0.014	0.014	0.014

Table 4.2-1. Project Area Air Quality Monitoring Summary 2018–2020

Pollutant	Standard	Year		
		2018	*2019*	*2020*
PM_{10}				
Maximum Federal 24-Hour Concentration (µg/m³)	>150 µg/m³	126	99	104
Annual Federal Arithmetic Mean (µg/m³)	N/A	44.0	34.4	30.0
Number of Days Exceeding Federal 24-Hour Standard	>150 µg/m³	0	0	0
Number of Days Exceeding State 24-Hour Standard	>50 µg/m³	132	21	110
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration (µg/m³)	>35 µg/m³	50.70	46.70	41.00
Annual Federal Arithmetic Mean (µg/m³)	>12 µg/m³	12.41	11.13	12.63
Number of Days Exceeding Federal 24-Hour Standard	>35 µg/m³	2	4	4

Source: Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ was obtained from SCAQMD Air Quality Data Tables (SCAQMD 2021a).
NO_2 = nitrogen dioxide; PM_{10} = particulate matter with an aerodynamic diameter equal to or less than 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; µg/m³ = micrograms per cubic meter; ppm = parts per million by volume; N/A = not applicable.

Local Attainment Status

Pursuant to the 1990 federal Clean Air Act Amendments, the U.S. Environmental Protection Agency (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 redesignated 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 the California Ambient Air Quality Standards (CAAQS) rather than the NAAQS.

The SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SCAB, where the Project is located. The entire SCAB is designated as a nonattainment area for federal and state O_3 standards. EPA has classified the SCAB as an extreme nonattainment area and has mandated that it achieve attainment no later than June 15, 2024. The SCAB is designated as an attainment area for state and federal CO standards. The SCAB is designated as an attainment area under the state and federal standards for NO_2. The entire SCAB is in attainment with federal and state SO_2 standards. Only the Los Angeles County portion of the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, and the SCAB is designated attainment for the state lead standard. The SCAB is designated as a nonattainment area for state PM_{10} standards; however, it is designated as an attainment area for federal standards. In regard to $PM_{2.5}$ attainment status, the SCAB is designated as a nonattainment area by the California Air Resources Board (CARB) and EPA (CARB 2018; EPA 2018). The attainment classifications for these criteria pollutants are outlined in Table 4.2-2.

Table 4.2-2. South Coast Air Basin Attainment Classifications

Pollutant	Averaging Time	Designation/Classification
Federal Standards		
O_3	8 hours	Nonattainment/Extreme
NO_2	1 hour	Unclassifiable/attainment
	Annual arithmetic mean	Attainment (maintenance)
CO	1 hour; 8 hours	Attainment (maintenance)
SO_2	24 hours; annual arithmetic mean	Unclassifiable/attainment
PM_{10}	24 hours	Attainment (maintenance)
$PM_{2.5}$	24 hours; annual arithmetic mean	Nonattainment (serious)
Lead	Quarter	Unclassifiable/attainment
	3-month average	Nonattainment (partial)[a]
State Standards		
O_3	1 hour; 8 hours	Nonattainment
NO_2	1 hour; annual arithmetic mean	Attainment
CO	1 hour; 8 hours	Attainment
SO_2	1 hour; 24 hours	Attainment
PM_{10}	24 hours; annual arithmetic mean	Nonattainment
$PM_{2.5}$	Annual arithmetic mean	Nonattainment
Lead[b]	30-day average	Attainment
Sulfates (SO_4)	24 hours	Attainment
Hydrogen sulfide (H_2S)	1 hour	Unclassified
Vinyl chloride[b]	24 hours	No designation
Visibility-reducing particles	8 hours (10:00 a.m.–6:00 p.m.)	Unclassified

Sources: EPA 2018 (federal); CARB 2018 (California)
Notes: O_3 = ozone; NO_2 = nitrogen dioxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = particulate matter with an aerodynamic diameter equal to or less than 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns.

[a] Partial nonattainment designation – Los Angeles County portion of air basin only for near-source monitors. Expected to remain in attainment based on current monitoring data.

[b] California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined.

4.2.1.2 Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations 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 O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and lead. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.[1] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

[1] The descriptions of each of the criteria air pollutants and associated health effects are based on EPA's Criteria Air Pollutants (EPA 2016) and CARB's Glossary of Air Pollutant Terms (CARB 2016).

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 NO_x and volatile organic compounds (VOCs). 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 the Earth's surface in the troposphere (ground-level O_3).[2] The O_3 that EPA and CARB regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2016). These health problems are particularly acute in sensitive receptors such as the sick, older adults, and young children.

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, which is a colorless, odorless gas. NO_x 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_x is an important precursor to acid rain and may affect terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources, such as electric utility and industrial boilers.

NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016).

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

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

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.

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

SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel.

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}) consists of particulate matter that is 10 microns or less in diameter and 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 ($PM_{2.5}$) consists of particulate matter that is 2.5 microns or less in diameter and is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and 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 (SO_x), 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 blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases, such as chlorides or ammonium into the lungs, also causing injury. PM_{10} tends to collect in the upper portion of the respiratory system, and $PM_{2.5}$ 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.

People with influenza, people with chronic respiratory and cardiovascular diseases, and older adults may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$ (EPA 2016).

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 phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout 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. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

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 (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the 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 Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hot spots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples 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 1/70th the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2016). DPM is typically composed of carbon particles ("soot," also called black carbon, or BC) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2016). CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM; 17 CCR 93000) as a TAC in August 1998. 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 2009). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2009). 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 2016). Those most vulnerable to noncancer health effects are children whose lungs are still developing and older adults, 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 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. 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.

4.2.2 Relevant Plans, Policies, and Ordinances

Regulatory oversight for air quality in the SCAB is maintained by the EPA at the federal level, CARB at the state level, and the SCAQMD at the local level. Applicable laws, regulations, and standards of these three agencies are described in the following subsections.

Federal

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 the setting of the NAAQS (federal standards) for major air pollutants, hazardous air pollutant (HAP) standards, approval of state attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric O_3 protection, and enforcement provisions. Federal standards are established for criteria pollutants under the Clean Air Act, which are O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The federal standards describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The federal standards (other than for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. Federal standards 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 federal standards 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 federal standards must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the federal standards 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.

The 1977 federal Clean Air Act Amendments required the EPA to identify national emissions 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

CARB, which became part of the California EPA 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 established the CAAQS (state standards), which are generally more restrictive than the federal standards. The state standards describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. The state standards for O_3, CO, SO_2 (1 hour and 24 hours), NO_2, 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. The federal and state standards are presented in Table 4.2-3.

Table 4.2-3. Ambient Air Quality Standards

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

Table 4.2-3. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary[c,d]*	*Secondary[c,e]*
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates	24- hours	25 µg/m³	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%	—	—

Source: CARB 2019a.

Notes: O_3 = ozone; µg/m³ = micrograms per cubic meter; ppm = parts per million by volume; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m³= milligrams per cubic meter; SO_2 = sulfur dioxide; PM_{10} = particulate matter with an aerodynamic diameter equal to or less than 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; 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 a 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 one. 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 upon 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 primary and secondary NAAQS for O_3 were lowered from 0.075 ppm to 0.070 ppm

g To attain the 1-hour national 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 parts per million (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 1-hour national 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 also were 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 toxic air contaminant (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 one 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.

The state Air Toxics Program was established in 1983 under AB 1807. The California TAC list identifies more than 700 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. The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) was enacted by the legislature 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 hot spots, 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, and if specific thresholds are exceeded, are 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. 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. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. Several Airborne Toxic Control Measures would 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).

Local

South Coast Air Quality Management District

The SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SCAB, where the Project is located. The SCAQMD operates monitoring stations in the SCAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. SCAQMD's Air Quality Management Plans (AQMPs) include control measures and strategies to be implemented to attain state and federal ambient air quality standards in the SCAB. The SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

The most recent adopted AQMP is the 2016 AQMP (SCAQMD 2017a), which was adopted by the SCAQMD governing board on March 3, 2017. The 2016 AQMP is a regional blueprint for achieving air quality standards and healthful air. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017a). Because mobile sources are the principal contributor to the SCAB's air quality challenges, the SCAQMD has been and will continue to be closely engaged with CARB and the EPA, who have primary responsibility for these sources. The 2016 AQMP recognizes the importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality but also local businesses and the regional economy. These "win/win" scenarios are key to implementation of the 2016 AQMP with broad support from a wide range of stakeholders. The SCAQMD 2016 AQMP (SCAQMD 2017a) applies the Southern California Association of Governments' (SCAG) growth forecasts assumed in the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016). The 2022 AQMP was adopted by the AQMD Hearing Board on December 2, 2022 and will subsequently be reviewed and approved by CARB and the EPA in Late 2022 or early 2023.

Potentially Applicable Rules

Emissions that would result from stationary and area sources during construction and operation under the Project may be subject to SCAQMD rules and regulations. The SCAQMD rules applicable to the Project may include the following:

Rule 201: **Permit to Construct.** This rule establishes an orderly procedure for the review of new and modified sources of air pollution through the issuance of permits. Rule 201 specifies that any facility installing nonexempt equipment that causes or controls the emissions of air pollutants must first obtain a permit to construct from SCAQMD (SCAQMD 2004).

Rule 203: **Permit to Operate.** This rule requires any equipment that may cause the issuance of air contaminants, or the use of which may reduce or control the issuance of air contaminants, to obtain a written permit to operate, and shall be operated to the conditions specified in the permit to operate.

Rule 401: **Visible Emissions.** This rule establishes the limit for visible emissions from stationary sources (SCAQMD 2001).

Rule 402: **Nuisance.** This rule prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property (SCAQMD 1976).

Rule 403: **Fugitive Dust.** This rule requires fugitive dust sources to implement best available control measures for all sources to ensure all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (SCAQMD 2005).

Rule 431.2: **Sulfur Content of Liquid Fuel.** The purpose of this rule is to limit the sulfur content in diesel and other liquid fuels for the purpose of both reducing the formation of SO_x and particulates during combustion and 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 district. The rule also affects diesel fuel supplied for mobile-source applications (SCAQMD 2000).

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 (SCAQMD 2016).

Rule 2202: **On-Road Motor Vehicle Mitigation Options.** Provides employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. This rule applies to any employer who employs 250 or more employees on a full or part-time basis.

Rule 2305: **Warehouse Indirect Source Rule.** Owners and operators of warehouses greater than or equal to 100,000 square feet of indoor floor space in a single building are required to reduce emissions of NOx and PM.

Regulation XIV: **Toxics and Other Non-Criteria Pollutants.** This regulation includes rules that regulate toxics and other non-criteria pollutants. It provides specifications for maximum individual cancer risk, cancer burden, and noncancer acute and chronic hazard index (HI) from new permit units, relocations, or

modifications to existing permit units that emit TACs. The rules establish allowable risks for permit units requiring new permits pursuant to Rules 201 or 203 (SCAQMD 2017b).

March Joint Powers Authority General Plan

The Noise/Air Quality Element of the adopted March JPA General Plan includes goals and policies related to air quality (March JPA 1999) that would be applied to the Project. Consistency with these goals and policies is discussed in Section 4.10, Land Use and Planning. The following goals and policies from the March JPA General Plan would apply to the Project (March JPA 1999):

Goal 6: Reduce emissions associated with vehicle/engine use.

Policy 6.1: Reduce idling emissions by increasing traffic flow through synchronized traffic signals.

Policy 6.2: Work with Riverside Transit Authority to develop a local transit system and facilitate connections of the local transit system with regional transit systems.

Policy 6.3: Encourage diversion of peak hour truck traffic, whenever feasible, to off-peak periods to reduce roadway congestion and associated emissions.

Policy 6.4: Work with Caltrans and traffic engineers to insure that roadways and freeway on-ramps that are heavily utilized by trucks are designed to safely accommodate trucks.

Policy 6.5: Encourage trucks operating within March JPA Planning Area to maintain safety equipment and operate at safe speeds so as to reduce the potential for accidents which create congestion and related emissions.

Policy 6.6: Reduce vehicle emissions through improved parking design and management that provide for safe pedestrian access to and from various facilities.

Policy 6.8: Encourage the use of compressed natural gas, clean diesel and/or alternative fuels in engines.

Goal 8: Reduce air pollution emissions and impacts through siting and building design.

Policy 8.1: Support the use of low polluting construction materials and coatings.

Policy 8.3: Encourage the separation of sensitive receptors from potential carbon monoxide hotspots.

Goal 9: Reduce fugitive dust and particulate matter emissions.

Policy 9.1: Require all feasible fugitive dust reduction techniques to be utilized during construction activities.

Policy 9.3: Support land division design which minimizes grading and maintains the natural topography to the maximum extent feasible.

Riverside County Good Neighbor Policy for Logistics and Warehouse/Distribution Uses:

In 2019, the Riverside County Board of Supervisors approved a Good Neighbor Policy to provide a framework for large scale e-commerce and warehouse facilities larger than 250,000 square feet. Although Riverside County does not have direct land use control within the March JPA jurisdiction, it is anticipated that in approximately 2025, Riverside County will assume full land use control over the March JPA planning area, due to the planned sunsetting/dissolution of the March Joint Powers Authority. Accordingly, consistency with the County's Good Neighbor Policy for Logistics and Warehouse/Distribution Uses provides an additional metric to determine if the Project's impacts are significant and provides an appropriate set of policies that are intended to guide development within unincorporated Riverside County. The County's Policy is consistent with WRCOG's 2005 "Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities", both of which are cited favorably by the Attorney General's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act" dated September 2022.

4.2.3 Project Design Features

The following Project Design Features (PDFs) have been incorporated into the Project and the impact analysis in Section 4.2.6 below.

PDF-AQ-1 Offroad equipment used during construction shall meet CARB Tier 4 Final emission standards or better.

PDF-AQ-2 **Construction Budget**. To ensure construction activities occur within the assumptions utilized in the Air Quality Impact Analysis (AQIA) (Appendix C-1) and disclosed in the EIR, the following shall be implemented:

- During each Phase of Project construction, the operating hours of construction equipment on site shall not exceed the assumptions set forth in Table 5-2 of the AQIA. In the event alternate equipment is required, the applicant shall provide documentation demonstrating equivalent or reduced emissions based on horsepower and hours of operation. The construction contractor shall submit a construction equipment hours log to the March JPA every 2 weeks to ensure compliance.
- During Phase 1, areas of active ground disturbance shall not exceed a maximum of 20 acres per day for Mass Grading and 20 acres per day for Blasting & Rock Handling. During Phase 2, the area of active ground disturbance shall not exceed a maximum of 20 acres per day for Remedial Grading. The construction contractor shall submit a grading log to the March JPA every two weeks documenting acreage graded or equivalent cubic yardage to ensure compliance. "Active disturbance" does not include moving of equipment from staging area(s) to grading areas.

PDF-AQ-3 **Future Site Plans**. All Specific Plan Area site plans shall include documentation confirming the site plan's environmental impacts do not exceed the impacts identified and disclosed in this EIR. Absent such documentation, additional environmental review shall be required.

PDF-AQ-4 **No Natural Gas Use**. Specific Plan Area development shall not utilize natural gas. In the event a future structure requires access to any available natural gas infrastructure, additional environmental review shall be required.

4.2.4 Thresholds of Significance

According to the March JPA 2022 California Environmental Quality Act (CEQA) Guidelines, a significant impact related to air quality would occur if the Project would (March JPA 2022):

AQ-1: Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2: 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.

AQ-3: Expose sensitive receptors to substantial pollutant concentrations.

AQ-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

A project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3 (see Table 4.2-4), which is a nonattainment pollutant, if that project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 4.2-4. These 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 (see the previous discussion of O_3 and its sources), and the effects of an individual project's emissions of O_3 precursors (VOC and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods.

Table 4.2-4. South Coast Air Quality Management District Air Quality Significance Thresholds

Pollutant	Construction Regional Thresholds	Operation Regional Thresholds
Criteria Pollutants Mass Daily Thresholds (pounds per day)		
VOCs	75	55
NO_x	100	55
CO	550	550
SO_x	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Lead[a]	3	3
TACs and Odor Thresholds		
TACs[b]	Maximum incremental cancer risk ≥10 in 1 million Chronic and acute hazard index ≥1.0 (project increment) Cancer burden >0.5 excess cancer cases (in areas ≥ 1 in 1 million)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality Standards for Criteria Pollutants[c]		
NO_2 1-hour average NO_2 annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)	

Table 4.2-4. South Coast Air Quality Management District Air Quality Significance Thresholds

Pollutant	Construction Regional Thresholds	Operation Regional Thresholds
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
PM_{10} 24-hour average PM_{10} annual average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation) 1.0 μg/m³	
$PM_{2.5}$ 24-hour average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation)	

Source: SCAQMD 2019.
Notes: VOC = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter with an aerodynamic diameter equal to or less than 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; TAC = toxic air contaminant; SCAQMD = South Coast Air Quality Management District; NO_2 = nitrogen dioxide; ppm = parts per million; μg/m³ = micrograms per cubic meter.
[a] The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed Project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] TACs include carcinogens and non-carcinogens.
[c] Ambient air quality standards for criteria pollutants based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
[d] Ambient air quality threshold based on SCAQMD Rule 403.

Construction Localized Significance Threshold

In addition to the emission-based thresholds in Table 4.2-4, the SCAQMD also recommends evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of a project as a result of construction and operation activities. Such an evaluation is referred to as a localized significance threshold (LST) analysis.

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, older adults, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as "sensitive receptors." These structures typically include residences, hotels, hospitals, and other facilities known to be locations where an individual can remain for 24 hours. Consistent with the LST methodology (SCAQMD 2008), the nearest land use where an individual could remain for 24 hours to the Project site (in this case, the nearest residential land use) was used to determine construction and operational air quality impacts for emissions of PM_{10} and $PM_{2.5}$, since PM_{10} and $PM_{2.5}$ thresholds are based on a 24-hour averaging time.

For the proposed Project, the appropriate SRA for the LST analysis is the SCAQMD Metropolitan Riverside County (SRA 23). LSTs apply to CO, NO_x, PM_{10}, and $PM_{2.5}$. The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size, but the look-up tables can be applied as a screening criterion for larger projects. Since total acreage disturbed for the Project is likely greater than 5 acres per day throughout the construction process, then the SCAQMD recommends dispersion modeling to be conducted to determine the actual pollutant concentrations for applicable LSTs in the air. In other words, the maximum daily on-site emissions as calculated in CalEEMod are modeled via air dispersion modeling to calculate the actual concentration in the air (e.g., parts per million or micrograms per cubic meter) in order to determine if any applicable thresholds are exceeded. In order to estimate localized pollutant concentrations resulting from Project construction, the SCAQMD-approved AERMOD dispersion model was utilized. The modeling approach utilized is discussed as follows:

Sources

It should be noted that in order to model worst-case conditions, the highest daily peak on-site emissions resulting from overlapping construction activity were modeled.

A ground level release height and a 1 meter (~3.28 feet) initial vertical dimension (sigma z) were utilized for fugitive emissions of PM_{10} and $PM_{2.5}$ consistent with SCAQMD's LST guidance.

In order to account for equipment exhaust emissions from NO_2, and CO a release height of 5.0 meters was utilized consistent with SCAQMD's LST guidance.

Meteorological Data and Model Options

In order to account for meteorological conditions at the Project site, meteorological data from the SCAQMD's Riverside Airport (KRAL) monitoring station was utilized, as this is the nearest station to the Project site for which meteorological data is available. Additionally, a receptor height of 2 meters and regulatory default options were utilized consistent with SCAQMD's LST guidance.

Operational Localized Significance Threshold

Similar to construction, dispersion modeling was performed to evaluate potential impacts to sensitive receptors during operation. The LST analysis generally includes on-site sources (area, energy, mobile – are previously discussed in Section 5.4 of Appendix C-1). However, it should be noted that the CalEEMod outputs do not separate on-site and off-site emissions from mobile sources. It should be noted that the longest on-site distance is approximately 2.0 miles. As such, a separate CalEEMod run for operational LSTs has been prepared which accounts for the 2.0-mile on-site travel distance. Outputs from the model run for operational LSTs are provided in Section 5.4 of Appendix C-1.

4.2.5 Approach and Methodology

Construction Emissions

In May 2022, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association and other California air districts, released the latest version of CalEEMod (Version 2022.1). Accordingly, the latest version of CalEEMod was used for the proposed Project to determine construction and operational air quality emissions.

Construction is expected to commence in June 2023 and would last through October 2027. The construction schedule used in the analysis, shown in Table 4.2-5, represents a "worst-case" analysis scenario because emissions factors for construction decrease as time passes and the analysis year increases due to emissions regulations becoming more stringent.[3] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet, as required per the CEQA Guidelines. The duration of construction activity was based on the Project's 2028 opening year.

Table 4.2-5. Construction Schedule

Phase	Construction Activity	Start Date	End Date	Days
Phase 1	Mass Grading	6/1/2023	3/5/2024	199

[3] As shown in the CalEEMod User's Guide Version 2022.1, Section 4.3, OFFROAD Equipment, as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer, less-polluting equipment and new regulatory requirements (CAPCOA 2021).

Table 4.2-5. Construction Schedule

	Blasting and Rock Handling	6/1/2023	3/5/2024	199
Phase 2	Remedial Grading	3/6/2024	6/6/2024	67
	Building Construction (including off site)	6/7/2024	10/15/2026	615
	Architectural Coating	8/1/2026	10/5/2027	307
	Paving	8/9/2027	10/5/2027	42

Source: Appendix C-1.

Based on information provided by the Project applicant, earthwork activities are expected to balance on site, and no import or export of soils would be required; however, approximately 7,608,500 cubic yards of dirt and 1,501,055 cubic yards of rock would be moved around the site. Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site), were estimated based on information from CalEEMod defaults. Site-specific construction fleet may vary due to specific Project needs at the time of construction. The associated construction equipment was provided by the Project applicant. Construction generates on-road vehicle emissions from vehicle usage for workers, hauling trucks, vendor trucks, and water trucks commuting to and from the site. A detailed summary of construction equipment assumptions by phase is provided at Table 4.2-6.

Table 4.2-6. Construction Equipment Assumptions

Phase	Construction Activity	Equipment	Amount	Hours Per Day	Horsepower	Load Factor
Phase 1	Mass Grading	Rubber Tired Dozers	8	8	670	0.40
		Scrapers	16	8	570	0.48
		Rubber Tired Dozers	1	8	425	0.40
		Off-Highway Trucks	3	8	500	0.38
		Tractors/Loaders/Backhoes	1	8	425	0.37
		Excavators	4	8	400	0.38
	Blasting and Rock Handling	Rubber Tired Dozers	2	8	670	0.40
		Tractors/Loaders/Backhoes	2	8	400	0.37
		Off-Highway Trucks	3	8	425	0.38
		Rubber Tired Dozers	1	8	600	0.40
		Bore/Drill Rigs	3	8	360	0.50
Phase 2	Remedial Grading	Rubber Tired Dozers	4	8	670	0.40
		Scrapers	8	8	570	0.48
		Rubber Tired Dozers	1	8	425	0.40
		Off-Highway Trucks	3	8	500	0.38
		Tractors/Loaders/Backhoes	1	8	425	0.37
		Excavators	2	8	400	0.38
	Building Construction	Cranes	2	8	231	0.29
		Crawler Tractors	3	8	212	0.43
		Forklifts	6	8	89	0.20
		Generator Sets	2	8	84	0.74
		Welders	2	8	46	0.45
	Architectural Coating	Air Compressors	2	8	78	0.48

Table 4.2-6. Construction Equipment Assumptions

Phase	Construction Activity	Equipment	Amount	Hours Per Day	Horsepower	Load Factor
	Paving	Pavers	4	8	130	0.42
		Paving Equipment	4	8	132	0.36
		Rollers	4	8	80	0.38

Source: Appendix C-1.

March JPA has established limits to the hours of construction. Section 9.10.030 of March JPA's Development Code provides that noise-generating construction activities can only occur between 7:00 a.m. and 7:00 p.m. As such, construction activities are permitted to occur up to 12 hours per day pursuant to the March JPA's Development Code. Under Section 9.10.140 of the March JPA Development Code, outdoor construction and grading activities, including the operation of any tools or equipment associated with construction, drilling, repair, alteration, grading/grubbing, or demolition work, within 500 feet of the property line of a residential use is further prohibited between 5:00 p.m. and 8:00 a.m. on Saturdays and at any time on Sunday or a federal holiday (March JPA 2016). However, the identified construction equipment for the proposed Project would not be used during every hour of the day. Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4.2-6 would operate up to a total of 8 hours per day, or approximately two-thirds of the period during which construction activities are allowed pursuant to the Development Code; most pieces of equipment would likely operate for fewer hours per day. **PDF-AQ-1** ensures consistency with the County of Riverside Good Neighbor Policy for Logistics and Warehouse/Distribution Uses (see Section 4.2.3 for full text of all PDFs). **PDF-AQ-2** ensures that construction activities remain within the construction budget assumed within the air analysis included in Appendix C-1.

CO "Hot Spot" Analysis

An adverse CO concentration, known as a hot spot, would occur if an exceedance of the state 1-hour standard of 20 parts per million (ppm) or the 8-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO (SCAQMD 2003a).

CO hot spots are caused by vehicular emissions, primarily when vehicles are idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams per mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment (CARB 2019b).

Localized Significance Threshold Analysis

The SCAQMD also recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of a project as a result of construction and operation activities. Such an evaluation is referred to as an LST analysis. LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. AERMOD was used to estimate concentrations of LST pollutants at the closest receptors to the project in accordance with SCAQMD Modeling Guidance for AERMOD. Both the construction and operational LST analyses are based on the combination of maximum emissions that may occur with the worst-case meteorological conditions, which equates to conservatively high estimates that may never occur.

Construction Health Risk Assessment

For the purposes of analyzing health risks, a health risk assessment was prepared to evaluate the potential construction health-risk impacts to sensitive receptors associated with exposure of DPM emissions from construction of the proposed Project (Appendix C-2). The analysis was conducted in accordance with the guidelines in the Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (SCAQMD 2003b). The EPA-approved dispersion model, American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD), was used to model the impacts of DPM emissions from construction activities. For purposes of this analysis, the Lakes AERMOD View (Version 10.2.1) was used to calculate annual average particulate concentrations associated with site operations. Lakes AERMOD View incorporates EPA's latest AERMOD Version 21112.

For the construction health risk assessment, on-site construction activity was modeled as volume sources encompassing the construction area, and the vendor truck routes were modeled as adjacent volume sources. Vendor trucks were modeled using EPA's haul-route methodology for modeling of off-site truck movement. More specifically, the Haul Road Volume Source Calculator in Lakes AERMOD View was used to determine the release height parameters. Based on the EPA methodology, the Project's modeled sources would result in a release height of 3.49 meters, an initial lateral dimension of 4.0 meters, and an initial vertical dimension of 3.25 meters. The construction activity was modeled to represent typical weekday construction activity (Monday through Friday, 8 hours per day, 7:00 a.m. to 3:00 p.m.).

Meteorological data from the SCAQMD's Riverside Airport monitoring station was used to represent local weather conditions and prevailing winds (SCAQMD 2022). The construction health risk assessment relied on the EPA Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens, EPA/630/R-003F. Discrete variants for daily breathing rates, exposure frequency, and exposure duration were obtained from relevant distribution profiles presented in the 2015 Office of Environmental Health Hazard Assessment's Guidelines (OEHHA 2015).

Operational Health Risk Assessment

A health risk assessment was prepared to evaluate the potential mobile-source health-risk impacts to sensitive receptors associated with exposure to DPM as a result of diesel trucks serving the Project (Appendix C-1). The EPA-approved dispersion model, AERMOD, was used to model the impacts of DPM emissions from trucks traveling on study area roadways. The analysis also included on-site emissions from trucks as well as transport refrigeration units (TRUs). The analysis was conducted in accordance with the guidelines in the Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (SCAQMD 2003b). SCAQMD recommends using the EPA's AERMOD model. For purposes of this analysis, the Lakes AERMOD View (Version 11.0.0) was used to calculate annual average particulate concentrations associated with site operations. Lakes AERMOD View incorporates EPA's latest AERMOD Version 21112. Meteorological data from the SCAQMD's Riverside Airport monitoring station was used to represent local weather conditions and prevailing winds (SCAQMD 2022). The health risk assessment (Appendix C-2) included DPM emissions from on-site truck idling, on-site truck traveling, and off-site truck traveling. Annual average PM_{10} emission factors were generated by running Emission Factors (EMFAC) 2021 in EMFAC Mode for vehicles in the Riverside County jurisdiction. Each roadway was modeled as a line source (made up of multiple adjacent volume sources). Discrete variants for daily breathing rates and exposure frequency were obtained from relevant distribution profiles presented in the 2015 Office of Environmental Health Hazard Assessment's Guidelines (OEHHA 2015) and the SCAQMD's Rule 1401 risk assessment procedures (SCAQMD 2017c).

The SCAQMD CEQA Air Quality Handbook states that emissions of TACs are considered significant if a health risk assessment shows an increased risk of greater than 10 in 1 million (SCAQMD 1993). Based on guidance from the SCAQMD in Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, for purposes of this analysis, 10 in 1 million was used as the cancer risk threshold for the proposed Project (SCAQMD 2003b). An evaluation of the potential noncarcinogenic effects of chronic exposures was also conducted.

Operational Emissions

Operation of the Project would result in criteria air pollutant emissions through area sources, energy use, and mobile sources.

Area Sources

CalEEMod estimates area source emissions for the following sources: architectural coating, consumer products, and landscape maintenance equipment. Detailed operational model outputs are presented in Appendix 5.2 of Appendix C-1.

Architectural Coating

Over a period of time, the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using CalEEMod.

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form O_3 and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. It should be noted that as October 9, 2021, Governor Gavin Newsom signed AB 1346. The bill aims to ban the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines [SOREs]) by 2024. For purposes of analysis, the emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod. It should be noted that the version of CalEEMod that was employed for this analysis does not account for AB 1346. As such, emissions associated with landscape maintenance equipment are conservative.

Energy Sources

California's Energy Efficiency Standards for Residential and Nonresidential Buildings was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy-efficient buildings require less electricity. The 2019 version of Title 24 was adopted by the California Energy

Commission and became effective on January 1, 2020. As such, the analysis herein assumed compliance with the newest Title 24 Standards, because the Project would be constructed after January 1, 2020. The 2022 version of Title 24 was adopted by the California Energy Commission and will become effective on January 1, 2023. As such, the 2022 version will apply at the time the Project is constructed but 2019 version was assumed. As such, this analysis is conservative. Pursuant to **PDF-AQ-4**, the Project is assumed to be all electric. As such, no natural gas is assumed to be used.

Mobile Sources

The Project related operational emissions derive primarily from vehicle trips generated by the Project. Trip characteristics available from the *West Campus Upper Plateau Traffic Analysis* were utilized in this analysis. The mobile-source emissions were calculated based on trip rates and trip lengths. Detailed operational model outputs are presented in Appendix C-1. Per the *West Campus Upper Plateau Traffic Analysis*, the Project is expected to generate a total of approximately of 35,314 trip-ends per day.

To determine emissions associated with the retail and open space land uses from all vehicle types (Light-Duty-Auto vehicles [LDA], Light-Duty Trucks [LDT1],[4] Light-Duty Trucks [LDT2],[5] Medium-Duty Trucks [MDV], Other Buses [OBUS],[6] Urban Buses [UBUS],[7] Motorcycle [MCY], School Buses [SBUS], and Motor Homes [MH], heavy duty trucks (2-axle/Light-Heavy-Duty Trucks [LHDT1[8] and LHDT2[9]], 3-axle/Medium-Heavy-Duty Trucks [MHDT], and 4+-axle/Heavy-Heavy-Duty Trucks [HHDT]), the CalEEMod default for vehicle type, trip purpose and one-way trip length of 16.6 miles was employed. To determine emissions from passenger car vehicles associated with the high-cube fulfillment center and business park uses, the CalEEMod defaults for trip purpose and a trip length of 20.27 miles was used.

The Project-specific passenger car fleet mix used in this analysis is based on a proportional split using the default CalEEMod percentages assigned to LDA, LDT1, LDT2, MDV, and MCY vehicle types. The truck types (LHDT1, LHDT2, MHDT, and HHDT) were broken down consistent with the Project's Traffic Analysis (Appendix N). To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 14.2 miles for 2-axle and 3-axle (LHDT1, LHDT2, and MHDT) trucks and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages taken from the West Campus Upper Plateau Traffic Study (SCAQMD 2021b). The trip length function for the high-cube fulfillment center and the business park uses has been conservatively calculated to 32.03 miles, with an assumption of 100% primary trips for the proposed industrial land uses.

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust, inclusive of brake and tire wear particulates. The emissions estimate for travel on paved roads were calculated using CalEEMod.

4 Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

5 Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

6 OBUS vehicle classes refers to all other buses except school buses and urban buses.

7 UBUS vehicle classes consist of natural gas buses, gasoline buses, and diesel buses.

8 Vehicles under the LHDT1 category have a GVWR of less than 8,501-10,000 lbs.

9 Vehicles under the LHDT2 category have a GVWR of less than 10,001-14,000 lbs.

TRUs

In order to account for the possibility of refrigerated uses, trucks associated with the cold-storage land use are assumed to also have TRUs. Therefore, for modeling purposes 188 trucks (376 two-way truck trips per day) have the potential to include TRUs. TRUs are accounted for during on-site and off-site travel. The TRU calculations are based on EMFAC2021, developed by the CARB. EMFAC2021 does not provide emission rates per hour or mile as with the on-road emission model and only provides emission inventories. Emission results are produced in tons per day while all activity, fuel consumption and horsepower hours were reported at annual levels. The emission inventory is based on specific assumptions including the average horsepower rating of specific types of equipment and the hours of operation annually. These assumptions are not always consistent with assumptions used in the modeling of project level emissions. Therefore, the emissions inventory was converted into emission rates to accurately calculate emissions from TRU operation associated with project level details. This was accomplished by converting the annual horsepower hours to daily operational characteristics and converting the daily emission levels into hourly emission rates based on the total emission of each criteria pollutant by equipment type and the average daily hours of operation.

Cargo Handling Equipment

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. **PDF-AQ-2** has been included in accordance with the County of Riverside Good Neighbor Policy for Logistics and Warehouse/Distribution Uses.

4.2.6 Impacts Analysis

Threshold AQ-1. Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

The Specific Plan area is located within the SCAB under the jurisdiction of the SCAQMD, which is the local agency responsible for administration and enforcement of air quality regulations for the area. Construction and operation of the Specific Plan Area may result in emissions of short- and long-term criteria air pollutants in conflict with the SCAQMD AQMPs.

The SCAQMD has established criteria for determining consistency with an AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993):

- **Consistency Criterion No. 1**: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards of the interim emissions reductions specified in the AQMP.
- **Consistency Criterion No. 2**: The proposed project will not exceed the assumptions in the AQMP or increments based on the year of project build-out phase.

Consistency Criterion No. 1

The violations that Consistency Criterion No. 1 refer to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded.

Construction Impacts – Consistency Criterion 1

As evaluated in Thresholds AQ-2 and AQ-3, the Project's regional and localized construction-source emissions would not exceed applicable regional significance threshold and LST thresholds after implementation of **Mitigation Measure (MM) AQ-1**. As such, a less than significant impact is expected.

Operational Impacts – Consistency Criterion 1

The Specific Plan buildout would not exceed the applicable LSTs for operational activity as evaluated under Threshold AQ-3. However, the Specific Plan's operational-source emissions are anticipated to exceed the regional thresholds of significance for VOC, NO_x, CO, and PM_{10} emissions. **MM-AQ-2** through **MM-AQ-15** are designed to reduce Project operational-source VOCs, NO_x, CO, and PM_{10} emissions. However, as there is no way to meaningfully quantify these reductions in CalEEMod, no numeric emissions credit has been taken in the analysis. As such, even with application of **MM-AQ-2** through **MM-AQ-15**, Project operational-source emissions impacts would be significant and unavoidable. As such, the Project has the potential to result in a significant impact with respect to this criterion and the Project would have the potential to conflict with the AQMP according to this criterion.

Conclusion – Consistency Criterion 1

On the basis of the preceding discussion, the Specific Plan is determined to be inconsistent with the first criterion.

Consistency Criterion No. 2

SCAQMD's 2016 AQMP notes that the applicable ambient air quality standards can be achieved within the timeframes required under federal law (SCAQMD 2017a). Growth projections from local general plans adopted by cities in the SCAQMD are provided to SCAG, which develops regional growth forecasts that are then used to develop future air quality forecasts for the AQMP. Development consistent with the SCAG RTP/SCS growth projections for the March JPA General Plan is considered to be consistent with the AQMP.

Construction Impacts – Consistency Criterion 2

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities.

Operational Impacts – Consistency Criterion 2

The March JPA General Plan land use designations were established to identify the land use, describe the type of development expected, and identify the allowable development intensity. The March JPA General Plan land use designation for the Specific Plan area is Business Park, Industrial, and Park/Recreation/Open Space. The Business Park designation includes administrative, financial, commercial service, governmental, and community support services; research and development centers; light manufacturing; vocational education and training facilities; business and trades schools; and emergency services. Business Park areas are generally served by arterial roadways, providing automobile and transit access. These areas are characterized as major employment concentrations. Development in this category, except for warehousing, is generally within a campus-like setting or cluster development pattern. Outdoor storage as a primary use is prohibited. The Industrial land use designation allows bio-medical waste treatment facilities, light and medium manufacturing, newspaper publishing plants,

research and development, public storage, and warehouses. The Park/Recreation/Open Space designation includes all passive and active park or recreation areas whether private or public in the Planning Area. Active recreation activities include outdoor athletic fields and public parklands. Passive activities include natural preserves with trails, along with designated arid natural open space areas. The Park/Recreation/Open Space uses, as defined in the Specific Plan, may also include civic uses such as police and fire substations.

The proposed Project (as shown on Figure 3-5, Site Plan) was analyzed in Appendix C-1 as consisting of the following uses:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1,280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- The proposed Project also includes approximately 445.43-acre Conservation Easement

Portions of the proposed land use plan are not consistent with the current General Plan land use designation. As such, the Project proposes a General Plan amendment and the Specific Plan which will modify the land use designations and zoning. At the General Pan level, the application includes: 1) a significant increase in acreage of the overall Parks/Recreation/Open Space land use designation; 2) elimination of the Business Park and Industrial General land use designations; and 3) replacement of a portion of the Business Park land use designation with a lessor amount of Specific Plan land use designation.

Conclusion – Consistency Criterion 2

Portions of the Specific Plan area are not consistent with the current land use designation. As such, the Project proposes General Plan amendments and the Specific Plan which will modify the land use designations and zoning. As the Specific Plan buildout would result in VOC, NOX, CO, and PM_{10} emission exceedances, the Specific Plan would result in significant and unavoidable impacts and is therefore determined to be inconsistent with the second criterion.

Threshold AQ-1 Conclusion

Even with application of **MM-AQ-2** through **MM-AQ-15**, Specific Plan operational-source emissions impacts would be significant and unavoidable. As such, the Specific Plan has the potential to result in a significant impact with respect to Consistency Criterion 1 and the Specific Plan would have the potential to conflict with the AQMP according to this criterion. As the Specific Plan operations would result in VOC, NOX, CO, and PM_{10} emission exceedances, the Specific Plan would result in significant and unavoidable impacts and is therefore determined to be inconsistent with the Consistency Criterion 2. As such, the Specific Plan would have a **significant and unavoidable** impact regarding conflicting with or obstructing implementation of the applicable air quality plan.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No construction activities would occur within the Conservation Easement, and no change to existing conditions would occur. As such, **no impacts** with respect to air quality would occur with the establishment of the Conservation Easement.

Threshold AQ-2. ***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?***

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Construction Impacts

The estimated maximum daily construction emissions without mitigation are summarized in Table 4.2-7.

Table 4.2-7 Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	pounds per day					
2023	9.74	56.06	477.51	0.96	56.33	19.16
2024	14.90	55.65	474.45	0.96	56.33	19.16
2025	9.37	26.52	187.48	0.13	2.46	0.52
2026	168.70	32.96	211.25	0.17	3.18	0.73
2027	172.51	10.84	68.72	0.10	0.88	0.33
Maximum	*172.51*	*56.06*	*477.51*	*0.96*	*56.33*	*19.16*
SCAQMD Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**Yes**	No	No	No	No	No

Source: Appendix C-1.
Notes: VOC = volatile organic compound; NOx = oxides of nitrogen; CO = carbon monoxide; SOx = sulfur oxides; PM10 = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM2.5 = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; <0.01 = reported emissions are less than 0.01; SCAQMD = South Coast Air Quality Management District.
Emissions include application of **PDF-AQ-1**, Tier 4 Final off-road equipment.

The Specific Plan Area's construction emissions would exceed the VOC SCAQMD significance threshold; thus, the Specific Plan's unmitigated impacts would be potentially significant and would therefore, per SCAQMD criteria, be cumulatively potentially significant and mitigation is required. Implementation of mitigation measure **MM-AQ-1** would reduce emissions of VOC below levels of significance. As such, impacts would be **less than significant with mitigation incorporated** as shown in Section 4.2.8.

Operational Impacts

CalEEMod uses summer and winter EMFAC2021 emission factors to derive vehicle emissions associated with operational activities, which vary by season. As such, peak operational activities for summer and winter scenarios are presented in Table 4.2-8. Detailed operational model outputs are presented in Appendix C-1.

Table 4.2-8. Summary of Project Operational Emissions

Source	Emissions (pounds per day)					
	VOC	*NO_X*	*CO*	*SO_X*	*PM_{10}*	*$PM_{2.5}$*
Summer						
Mobile Source	174.00	308.00	2,148.00	6.90	233.00	46.30
Area Source	158.00	1.82	217.00	0.01	0.29	0.39
Energy Source	0.00	0.00	0.00	0.00	0.00	0.00
TRU Source	13.62	14.91	1.62	0.00	0.64	0.58
Total Maximum Daily Emissions	**345.62**	**324.73**	**2,366.62**	**6.91**	**233.93**	**47.27**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**
Winter						
Mobile Source	332.00	310.00	2,364.00	6.91	233.00	46.70
Area Source	122.00	0.00	0.00	0.00	0.00	0.00
Energy Source	0.00	0.00	0.00	0.00	0.00	0.00
TRU Source	13.62	14.91	1.62	0.00	0.64	0.58
Total Maximum Daily Emissions	**467.62**	**324.91**	**2,365.62**	**6.91**	**233.64**	**47.28**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**

Source: Appendix C-1.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SOx = sulfur oxides; PM_{10} = particulate matter with an aerodynamic diameter equal to or less than 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; <0.01 = reported emissions are less than 0.01; SCAQMD = South Coast Air Quality Management District. Emissions include application of **PDF-AQ-4**, all electric cargo handling equipment, and no natural gas would be used on site.

As shown in Table 4.2-8, the Specific Plan Area's daily regional emissions from operations would exceed the thresholds of significance for emissions of VOCs, NO_X, CO, and PM_{10}. Therefore, a potentially significant impact would occur and would, therefore, per SCAQMD criteria, be cumulatively potentially significant and mitigation is required. **MM-AQ-2** through **MM-AQ-15** (on-site idling restriction; clean-truck funding education; passive heating and cooling; electrical outlets for landscaping equipment; electric landscape equipment; electric cargo-handling equipment; clean trucks; employee commuting; SmartWay Trucks; employee training; on-site circulation signage; and truck charging) are designed to reduce Specific Plan operational-source VOCs, NO_X, CO, and PM_{10} emissions. There is no way to meaningfully quantify these reductions in CalEEMod, and therefore no numeric emissions credit has been taken in the analysis. As such, even with application of **MM-AQ-2** through **MM-AQ-15**, Specific Plan operational-source emissions impacts would be **significant and unavoidable**.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No construction activities would occur within the Conservation Easement, and no change to existing conditions would occur. As such, **no impacts** with respect to air quality would occur with the establishment of the Conservation Easement.

Threshold AQ-3. Would the Project expose sensitive receptors to substantial pollutant concentrations?

Specific Plan Area (Campus Development, Park, Infrastructure Improvements)

The potential impact of Specific Plan Area-generated air pollutant emissions on sensitive receptors has also been considered. Sensitive receptors can include uses such as long-term healthcare facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered sensitive receptors.

Localized Significance Thresholds Analysis

The SCAQMD also recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of a project as a result of construction and operation activities. Such an evaluation is referred to as an LST analysis. LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$.

Construction Localized Significance Threshold Impacts

As shown in Table 4.2-9, the on-site construction emissions for NO_2, CO, PM_{10}, and $PM_{2.5}$ were compared to the respective LSTs. Outputs from the model runs for construction LSTs are provided in Appendix C-1.

Table 4.2-9. Localized Significance Summary – Construction

	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
Peak Construction	*1-Hour*	*8-Hour*	*1-Hour*	*24-Hours*	*24-Hours*
Peak Day Localized Emissions	0.06	0.02	0.004	1.68	0.39
Background Concentration[a]	0.143	0.115	0.066	—	—
Total Concentration	**0.21**	**0.14**	**0.07**	**1.68**	**0.39**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**

Source: Appendix C-1.
Notes: NO_x = oxides of nitrogen; CO = carbon monoxide; PM_{10} = particulate matter with an aerodynamic diameter equal to or less than 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; SCAQMD = South Coast Air Quality Management District.
PM_{10} and $PM_{2.5}$ concentrations are expressed in µg/m3. All others are expressed in ppm.
Includes application of **PDF-AQ-1**, Tier 4 Final off-road equipment.
[a] Highest concentration from the last three years of available data.

Results of the LST analysis indicate that the Specific Plan buildout would not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during Specific Plan construction, and impacts would be **less than significant,** and no mitigation is required.

Operational LST Impacts

The LST analysis generally includes on-site sources (area, energy, and mobile – are previously discussed in Appendix C-1). However, it should be noted that the CalEEMod outputs do not separate on-site and off-site emissions from mobile sources. As such, in an effort to establish a maximum potential impact scenario for analytic purposes, the emissions shown in Table 4.2-10 represent all on-site Specific Plan-related stationary (area) sources

and 5% of the Specific Plan-related mobile sources. Considering that the minimum trip length used in CalEEMod for the Specific Plan is approximately 16.6 miles for passenger cars and a maximum of 32.03 miles for all trucks, 5% of this total would represent an on-site travel distance of approximately 0.8 mile/4,382 feet for passenger cars and 1.7 miles/8,976 feet for trucks. It should be noted that the longest on-site distance is roughly 2.0 miles for both trucks and passenger cars. As such, the 2-mile assumption is conservative and would tend to overstate the actual impact because it is not likely that a passenger car would drive 0.8 mile on the site or that a truck would drive 1.7 miles on the site.

Table 4.2-10. Localized Significance Summary – Operation

	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
Peak Construction	*1-Hour*	*8-Hour*	*1-Hour*	*24-Hours*	*24-Hours*
Peak Day Localized Emissions	0.04	0.03	0.003	0.91	0.21
Background Concentration[a]	0.143	0.115	0.066	—	—
Total Concentration	**0.18**	**0.15**	**0.07**	**0.91**	**0.21**
SCAQMD Localized Significance Threshold	20	9	0.18	2.5	2.5
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**

Source: Appendix C-1.
Notes: NO_x = oxides of nitrogen; CO = carbon monoxide; PM_{10} = particulate matter with an aerodynamic diameter equal to or less than 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; SCAQMD = South Coast Air Quality Management District.
PM_{10} and $PM_{2.5}$ concentrations are expressed in µg/m3. All others are expressed in ppm.
Includes application of **PDF-AQ-2**, all-electric cargo handling equipment.
[a] Highest concentration from the last three years of available data.

Results of the LST analysis indicate that the Specific Plan Area would not exceed the SCAQMD localized significance thresholds during operational activities; impacts would be **less than significant**, and no mitigation is required.

CO Hot Spot Analysis

The Specific Plan Area would not result in potentially adverse CO concentrations, or "hot spots." Further, detailed modeling of Specific Plan CO hot spots is not needed to reach this conclusion. An adverse CO concentration, known as a "hot spot," would occur if an exceedance of the state 1-hour standard of 20 ppm or the 8-hour standard of 9 ppm were to occur. At the time of the SCAQMD's CEQA Air Quality Handbook (1993), the SCAB was designated nonattainment under the CAAQS and NAAQS for CO (SCAQMD 1993). The determination of a potential CO hot spot is focused on the mobile-source vehicular activity that would occur at intersections in the Specific Plan Area.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO hot spot analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods (SCAQMD 2003a). This hot spot analysis did not predict any violation of CO standards, as shown in Table 4.2-11.

Table 4.2-11. Carbon Monoxide Model Results

	Carbon Monoxide Concentrations (parts per million)		
Intersection Location	*Morning 1-Hour*	*Afternoon 1-Hour*	*8-Hour*
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5

Table 4.2-11. Carbon Monoxide Model Results

Intersection Location	Carbon Monoxide Concentrations (parts per million)		
	Morning 1-Hour	*Afternoon 1-Hour*	*8-Hour*
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Source: SCAQMD 2003a, Appendix V: Modeling and Attainment Demonstrations
Note: Federal 1-hour standard is 35 parts per million and the deferral 8-hour standard is 9 parts per million.

Based on the SCAQMD's 2003 AQMP (SCAQMD 2003a) and the 1992 Federal Attainment Plan for Carbon Monoxide, peak CO concentrations in the SCAB were a result of unusual meteorological and topographical conditions, and not a result of traffic volumes or congestion at a particular intersection. As evidence of this, for example, 8.4 ppm 8-hour CO concentration measured at the Long Beach Boulevard and Imperial Highway intersection (highest CO-generating intersection within the hot spot analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.4 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared. In contrast, an adverse CO concentration, known as a hot spot, would occur if an exceedance of the state 1-hour standard of 20 ppm or the 8-hour standard of 9 ppm were to occur.

The ambient 1-hour and 8-hour CO concentration within the Project study area were estimated to be 1.9 ppm and 1.4 ppm, respectively (data from Metropolitan Riverside County station for 2020) (SCAQMD 2020). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Boulevard and Imperial Highway intersection, coupled with the ongoing improvements in ambient air quality, the Specific Plan would not be capable of resulting in a CO hot spot at any study area intersections.

The 2003 AQMP estimated that the 1-hour concentration for the Wilshire Boulevard and Veteran Avenue intersection was 4.6 ppm (SCAQMD 2003a); this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4 = 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm). The highest trips on a segment of road that the Specific Plan would generate is 87,515 vehicles per day on Meridian Parkway and Van Buren Boulevard.

The busiest intersection evaluated for traffic volumes was at La Cienega Boulevard and Century Boulevard, which has a traffic volume of approximately 8,674 vehicles per hour (SCAQMD 2003a). The highest trips on a segment of road for the proposed Project during the non-peak season is 8,669 vehicles per hour on Alessandro Boulevard/Arlington Avenue and Chicago Avenue. As such, Specific Plan-related traffic volumes are less than the traffic volumes identified in the 2003 AQMP. The Specific Plan buildout considered herein would not produce the volume of traffic required to generate a CO hot spot either in the context of the 2003 Los Angeles hot spot study or based on representative Bay Area Air Quality Management District CO threshold considerations (BAAQMD 2017). Therefore, CO hot spots are not an environmental impact of concern for the Specific Plan.

Specific Plan traffic would not create or result in a CO hot spot. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Specific Plan operations, and impacts would be **less than significant,** and no mitigation is required.

Health Risk Assessment

Construction Health Risk Assessment

The land use with the greatest potential exposure to Specific Plan Area construction-source DPM emissions is Location R11 which is located approximately 304 feet north of the mixed-use portion of the Specific Plan Area at an existing residence located at 971 Saltcoats Drive. R11 is placed in the private outdoor living areas (backyard) facing the Specific Plan. The health risk assessment included application of **PDF-AQ-1**, Tier 4 Final off-road equipment. Additionally, as required by **PDF-AQ-2**, throughout construction the applicant will demonstrate compliance with all construction equipment assumptions included in Appendix C-1 of this EIR. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Specific Plan construction-source DPM emissions is estimated at 0.59 in one million, which is less than the SCAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Specific Plan Area would not cause a significant human health or cancer risk to adjacent land uses as a result of construction activity. All other receptors during construction activity would experience less risk than what is identified for this location (Appendix C-2).

The results of the health risk assessment indicate that the Specific Plan would not result in any significant health risk impacts from exposure to TACs from construction (Appendix C-2). Thus, impacts to sensitive receptors would be **less than significant**, and no mitigation is required**.**

Operational Health Risk Assessment

Residential Exposure Scenario

The residential land use with the greatest potential exposure to Specific Plan Area operational-source DPM emissions is Location R12 which is located approximately 859 feet south of the business park portion of the Specific Plan Area at an existing residence located at 20620 Iris Canyon Road. R12 is placed in the private outdoor living areas (backyard) facing the Specific Plan Area. The operational health risk assessment included application of **PDF-AQ-2**, all-electric cargo-handling equipment. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 1.47 in one million, which is less than the SCAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled residential receptors are exposed to lesser concentrations and are located at a greater distance from the Specific Plan Area than the MEIR analyzed herein, and TACs generally dissipates with distance from the source, all other residential receptors in the vicinity of the Specific Plan Area would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Specific Plan would not cause a significant human health or cancer risk to nearby residences. The nearest modeled receptors are illustrated on Exhibit 2-D in Appendix C-2.

Worker Exposure Scenario[10]

The worker receptor land use with the greatest potential exposure to Specific Plan Area operational-source DPM emissions is Location R13, which represents the potential worker receptor located approximately 4,113 feet east

[10] SCAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act)/CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on site.

of an industrial portion of the Specific Plan Area. At the maximally exposed individual worker (MEIW), the maximum incremental cancer risk impact is 0.60 in one million which is less than the SCAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled worker receptors are located at a greater distance than the MEIW analyzed herein, and DPM dissipates with distance from the source, all other worker receptors in the vicinity of the Specific Plan Area would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Specific Plan would not cause a significant human health or cancer risk to adjacent workers. The nearest modeled receptors are illustrated on Exhibit 2-D in Appendix C-2.

School Child Exposure Scenario

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70% drop-off in particulate pollution levels at 500 feet. Based on CARB and SCAQMD emissions and modeling analyses, an 80% drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center.

The 1,000-foot evaluation distance is supported by research-based findings concerning Toxic Air Contaminant (TAC) emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

A one-quarter mile radius, or 1,320 feet, is commonly utilized for identifying sensitive receptors, such as schools, that may be impacted by a proposed project. This radius is more robust than, and therefore provides a more health protective scenario for evaluation than the 1,000-foot impact radius identified above.

The nearest school is the preschool located at Grove Community Church (Location R8), located approximately 794 feet southwest of the Specific Plan Area. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact attributable to the Specific Plan is calculated to be 0.21 in one million, which is less than the significance threshold of 10 in one million. At this same location, non-cancer risks attributable to the Specific Plan were calculated to be <0.01, which would not exceed the applicable significance threshold of 1.0. As such, the Specific Plan would not cause a significant human health or cancer risk to nearby school children.

The next nearest school is Benjamin Franklin Elementary School, which is located approximately 2,320 feet southwest of the Specific Plan Area. Because there is no reasonable potential that TAC emissions would cause significant health impacts at distances of more than one-quarter mile from the air pollution source, there would be no significant impacts that would occur to any schools in the vicinity of the Specific Plan (Appendix C-2).

The results of the health risk assessment indicate that Specific Plan buildout would not result in any significant health risk impacts from exposure to TACs from operation (Appendix C-2). Thus, impacts to sensitive receptors would be **less than significant**, and no mitigation is required.

Health Effects of Criteria Air Pollutants

NO_X and ROG are precursor emissions that form O_3 in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so O_3 may be formed at a distance downwind from the sources. Breathing ground-level O_3 can result health effects that include reduced lung function, inflammation of airways, throat irritation, pain, burning,

or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily O_3 concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that O_3 can make asthma symptoms worse and can increase sensitivity to asthma triggers.

As explained in the Brief of Amicus Curiae by the SCAQMD (Brief, April 6, 2015) in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 (*Friant Ranch*), the SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the state, and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes. The Brief discusses that it may be infeasible to quantify health risks caused by individual projects, due to various factors. It is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). The Brief also cites the author of the CARB methodology, which reported that a $PM_{2.5}$ methodology is not suited for small projects and may yield unreliable results. Similarly, SCAQMD staff does not currently know of a way to accurately quantify O_3-related health impacts caused by NO_X or ROG (VOC) emissions from relatively small projects, due to photochemistry and regional model limitations. The Brief concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful.

As noted in the Brief, it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons, including modeling limitations, as well as where in the atmosphere air pollutants interact and form for a development as small as the proposed Project. Furthermore, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (April 13, 2015), San Joaquin Valley Air Pollution Control District has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts. The San Joaquin Valley Air Pollution Control District notes, "…the Air District is simply not equipped to analyze and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area…even for projects with relatively high levels of emissions of criteria pollutant precursor emissions."

The briefs make it clear that two expert agencies do not believe that there must be a quantification of a project's health risks in all CEQA documents prepared for individual projects. To date, the SCAQMD has not released any additional guidance on *Friant Ranch* analysis. Any attempt to quantify the Project's health risks would be considered unreliable and misleading.

Conclusion

Emissions from construction and operation of Specific Plan buildout would not exceed applicable LST, CO hotspot, or HRA thresholds. As such, impacts would be **less than significant**, and no mitigation is required.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No construction activities would occur within the Conservation Easement, and no change to existing conditions would occur. As such, **no impacts** with respect to air quality would occur with the establishment of the Conservation Easement.

Threshold AQ-4. Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

The potential for Specific Plan buildout to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include the following:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

Potential odor sources associated with the proposed Specific Plan may result from construction equipment exhaust, the application of asphalt and architectural coatings during construction activities, and the temporary storage of typical solid waste (refuse) associated with the proposed Specific Plan's long-term operational uses. Standard construction requirements would minimize odor impacts from construction. Construction odor emissions would be temporary, short-term, and intermittent, and would cease upon completion of the respective phase of construction; thus, the impact would be less than significant. Under the proposed Specific Plan, no land uses identified as sources of odor above would be permitted. The proposed Specific Plan land uses would be required to comply with SCAQMD Rule 402, Nuisance, to prevent occurrences of public nuisances. Therefore, odors associated with implementation of the Specific Plan during construction and operations would be **less than significant**.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No construction activities would occur within the Conservation Easement, and no change to existing conditions would occur. As such, **no impacts** with respect to air quality would occur with the establishment of the Conservation Easement.

4.2.7 Mitigation Measures

CEQA Guidelines Section 15126.4 requires EIRs to describe feasible measures that can minimize significant adverse impacts. The following mitigation measures have been evaluated for feasibility and would be incorporated into the Project to further reduce potentially significant construction VOC emission impacts, operational VOC, NO_x, CO, and PM_{10} emission impacts and potential odor impacts.

MM-AQ-1 Prior to issuance of building permits, the developer's construction plans shall ensure the Project will utilize "Super-Compliant" low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD's Rule 1113. Super-Compliant low VOC paints shall be

no more than 10 grams per liter (g/L) of VOC. Alternatively, the Applicant may utilize tilt-up concrete buildings that do not require the use of architectural coatings.

MM-AQ-2 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations. 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 five (5) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the California Air Resources Board to report violations. Prior to the issuance of an occupancy permit, the March Joint Powers Authority shall conduct a site inspection to ensure that the signs are in place. One six square foot sign providing this information shall be located on the building between every two dock-high doors and the sign shall be posted in highly visible locations at the entrance gates, semi parking areas, and trailer parking locations.

MM-AQ-3 Prior to tenant occupancy, the Project applicant or successor in interest shall provide documentation to the March Joint Powers Authority demonstrating that occupants/tenants of the Project site have been provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment.

MM-AQ-4 Prior to the issuing of each building permit, the Project applicant and its contractors shall provide plans and specifications to the March Joint Powers Authority that demonstrate that each Project building is designed for passive heating and cooling and is designed to include natural light. Features designed to achieve this shall include the proper placement of windows, overhangs, and skylights.

MM-AQ-5 Prior to the issuing of each building permit, the Project applicant and its contractors shall provide plans and specifications to the March Joint Powers Authority that demonstrate that electrical service is provided to each of the areas in the vicinity of the building that are to be landscaped in order that electrical equipment may be used for landscape maintenance. Said electrical outlets shall be located no more than every 200 feet apart.

MM-AQ-6 Once constructed, the Project applicant or successor in interest shall ensure that all building occupants shall utilize electric equipment for landscape maintenance through requirements in the lease agreements or purchase and sell agreement.

MM-AQ-7 Once constructed, through requirements in the lease agreements or purchase and sell agreement, the Project applicant or successor in interest shall ensure that all building occupants shall utilize only electric service yard trucks (hostlers), pallet jacks and forklifts, and other on-site equipment. Yard hostlers may be diesel fueled in lieu of electrically powered, provided that the occupant submits a letter identifying that electric hostlers are technically infeasible and provided such yard hostlers are compliant with California Air Resources Board (CARB) 2010 standards for on-road vehicles or CARB Tier 4 Final compliant for off-road vehicles. As an alternative, hydrogen powered equipment shall also be acceptable.

MM-AQ-8 Upon occupancy, through requirements in the lease agreements or purchase and sell agreement, the facility operator shall require tenants that do not already operate 2010 and newer trucks to apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1B,

SmartWay Finance, or other similar funds. If awarded, the tenant shall be required to accept and use the funding. Occupants shall be encouraged to consider the use of alternative fueled trucks as well as new or retrofitted diesel trucks. Occupants shall also be encouraged to become SmartWay Partners, if eligible. This measure shall not apply to trucks that are not owned or operated by the facility operator or facility tenants since it would be infeasible to prohibit access to the site by any truck that is otherwise legal to operate on California roads and highways.

MM-AQ-9 Through requirements in the lease agreements or purchase and sell agreement, tenants who employ 250 or more employees on a full- or part-time basis shall comply with South Coast Air Quality Management District (SCAQMD) Rule 2202, On-Road Motor Vehicle Mitigation Options. The purpose of this rule is to provide employees with a menu of options to reduce employee commute vehicle emissions. Tenants with less than 250 employees or tenants with 250 or more employees who are exempt from SCAQMD Rule 2202 (as stated in the Rule) shall either (a) join with a tenant who is implementing a program in accordance with Rule 2202 or (b) implement an emission reduction program similar to Rule 2202 with annual reporting of actions and results to the March JPA. The tenant-implemented program would include, but not be limited to the following:

- Appoint a Transportation Demand Management (TDM) coordinator who would promote the TDM program, activities and features to all employees.
- Create and maintain a "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk, or take transit to work.
- Inform employees of public transit and commuting services available to them (e.g., social media, signage).
- Provide on-site transit pass sales and discounted transit passes.
- Guarantee a ride home.
- Offer shuttle service to and from public transit and commercial areas/food establishments, if warranted.
- Coordinate with the Riverside Transit Agency and employers in the surrounding area to maximize the benefits of the TDM program.

MM-AQ-10 Prior to the issuance of a building permit, the Project applicant shall provide evidence to the March Joint Powers Authority that loading docks are designed to be compatible with SmartWay trucks.

MM-AQ-11 Through requirements in the lease agreements or purchase and sell agreement, upon occupancy and annually thereafter, the facility operator shall provide information to all tenants, with instructions that the information shall be provided to employees and truck drivers as appropriate, regarding:

- Building energy efficiency, solid waste reduction, recycling, and water conservation.
- Vehicle GHG emissions, electric vehicle charging availability, and alternate transportation opportunities for commuting.
- Participation in the Voluntary Interindustry Commerce Solutions (VICS) "Empty Miles" program to improve goods trucking efficiencies.
- Health effects of diesel particulates, state regulations limiting truck idling time, and the benefits of minimized idling.
- The importance of minimizing traffic, noise, and air pollutant impacts to any residences in the Project vicinity.

MM-AQ-12 Prior to issuance of a building permit, the Project applicant shall provide the March Joint Powers Authority with an on-site signage program that clearly identifies the required on-site circulation system. This shall be accomplished through posted signs and painting on driveways and internal roadways.

MM-AQ-13 Prior to issuance of an occupancy permit, the March Joint Powers Authority shall confirm that signs clearly identifying the approved truck routes have been installed along the truck routes to and from the project site and within the project site.

MM AQ-14 Prior to issuance of an occupancy permit, the Project applicant shall install a sign on the property with telephone, email, and regular mail contact information for a designated representative of the tenant who would receive complaints about excessive noise, dust, fumes, or odors. The sign shall also identify contact data for the March Joint Powers Authority or Riverside County, as determined by the permitting authority, for perceived Code violations. The tenant's representative shall keep records of any complaints received and actions taken to communicate with the complainant and resolve the complaint. The tenant's representative shall endeavor to resolve complaints within 24 hours.

MM AQ-15 Prior to issuance of a building permit, the Project applicant shall provide the March Joint Powers Authority with project specifications, drawings, and calculations that demonstrate that main electrical supply lines and panels have been sized to support heavy truck charging facilities when these trucks become available. The calculations shall be based on reasonable predictions from currently available truck manufacturer's data. Electrical system upgrades that exceed reasonable costs shall not be required

4.2.8 Level of Significance After Mitigation

Construction Impacts

As discussed under Thresholds AQ-1 and AQ-2, the Specific Plan would conflict with Consistency Criterion No. 1, and the Specific Plan's construction emissions would exceed the VOC SCAQMD significance thresholds. The Specific Plan would implement **MM-AQ-1,** which would reduce emissions of VOCs. As shown in Table 4.2-12, after implementation of **MM-AQ-1**, Specific Plan construction-source emissions of VOC would not exceed the applicable SCAQMD thresholds. Thus, impacts would be **less than significant with mitigation incorporated**.

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

Year	VOC (pounds per day)
2023	9.74
2024	14.90
2025	9.37
2026	29.60
2027	33.41
Maximum	*33.41*
SCAQMD Threshold	*75*
Threshold Exceeded?	**No**

Source: Appendix C-1
Notes: VOC = volatile organic compound; NOx = oxides of nitrogen; CO = carbon monoxide; SOx = sulfur oxides; PM10 = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM2.5 = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; <0.01 = reported emissions are less than 0.01; SCAQMD = South Coast Air Quality Management District.
Includes application of **PDF-AQ-1**, Tier 4 Final off-road equipment, and **MM-AQ-1**, low-VOC architectural coatings.

Operational Impacts

As discussed under Thresholds AQ-1 and AQ-2, the Specific Plan would exceed regional thresholds of significance established by the SCAQMD for VOC, NO_x, CO, and PM_{10} emissions; thus, the Specific Plan's unmitigated impacts would be potentially significant. The majority of the Specific Plan's operational VOC, NO_x, CO, and PM_{10} emissions would be derived from the mobile sources. The Specific Plan would implement **MM-AQ-2** through **MM-AQ-15** to reduce the Specific Plan's operational VOC, NO_x, CO, and PM_{10} emissions; however, there is no meaningful way to quantify these reductions in CalEEMod and therefore no numeric emissions credit was taken in the analysis. Therefore, the Specific Plan's operational VOC, NO_x, CO, and PM_{10} emissions would be **significant and unavoidable**, and would, therefore, per SCAQMD criteria, be cumulatively significant and unavoidable.

4.2.9 Cumulative Effects

Air pollution by nature is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD 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 used by the SCAQMD to determine whether a project's individual emissions would have a cumulatively significant impact on air quality. The potential for the Project to result in a cumulatively considerable impact, specifically a cumulatively considerable new increase of any criteria pollutant for which the Project region is nonattainment under an applicable NAAQS and/or CAAQS, is addressed in Section 4.2.5, Impacts Analysis. As set forth therein, because the Project would exceed the project-level thresholds for regional VOC, NO_x, CO, and PM_{10} emissions during operation, the Project's cumulative impacts with respect to such emissions would be **considerable and significant.**

4.2.10 References Cited

BAAQMD (Bay Area Air Quality Management District). 2017. *California Environmental Quality Act Air Quality Guidelines.* May 2017. Accessed July 2020. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

CAPCOA (California Air Pollution Control Officers Association). 2021. *CalEEMod California Emissions Estimator Model User's Guide Version 2020.4.0*. April 2021. http://www.aqmd.gov/caleemod/user's-guide.

CARB (California Air Resources Board). 2009. *Fact Sheet: Air Pollution Sources, Effects, and Control*.

CARB. 2016. *Glossary of Air Pollutant Terms*. https://ww2.arb.ca.gov/glossary.

CARB. 2018. "Ambient Air Quality Standards." http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

CARB. 2019a. "Air Quality Standards." https://ww2.arb.ca.gov/resources/background-air-quality-standards.

CARB. 2019b. "Area Designations for State Ambient Air Quality Standards; Carbon Monoxide." Last updated August 2019. https://www.arb.ca.gov/desig/adm/2019/state_co.pdf?_ga=2.166519614.1206867329.1620235421-1767129284.1554841522.

EPA (U.S. Environmental Protection Agency). 2016. Six Common Air Pollutants. https://www.epa.gov/criteria-air-pollutants.

EPA. 2018. "EPA Region 9 Air Quality Maps and Geographic Information." Last updated September 28, 2018. http://www.epa.gov/region9/air/maps/.

March JPA (Joint Powers Authority). 1999. *General Plan of the March Joint Powers Authority*. https://marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

March JPA. 2016. March Joint Power Authority Development Code. [Online] August 2016. https://www.marchjpa.com/documents/docs_forms/development_code_2016.pdf.

March JPA. 2022. *Local Guidelines for Implementing the California Environmental Quality Act for March Joint Powers Authority and March Inland Port Airport Authority and Successor Agency of the Former March Joint Power Redevelopment Agency and March Joint Powers Utilities Authority*. https://www.marchjpa.com/documents/docs_forms/05172022_MJPA_2022_CEQA_Guidelines.pdf.

OEHHA (Office of Environmental Health Hazard Assessment). 2003. Air Toxics Hot Spots Program Risk Assessment Guidelines. August. https://www.cityofdavis.org/home/showpublisheddocument/4231/635803240370600000.

OEHHA. 2015. *Guidance Manual for Preparation of Health Risk Assessments*. February 2015. https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

SCAG (Southern California Association of Governments). 2016. *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*. April 2016. http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

SCAQMD (South Coast Air Quality Management District). 1976. Rule 402 – Nuisance. Adopted May 7, 1976. https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf?sfvrsn=4.

SCAQMD. 1993. *SCAQMD CEQA Air Quality Handbook*.

SCAQMD. 2000. Rule 431.2 – Sulfur Content of Liquid Fuels. Amended September 15, 2000. https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-431-2.pdf?sfvrsn=4.

SCAQMD. 2001. Rule 401 – Visible Emissions. Amended November 9, 2001. https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-401.pdf?sfvrsn=4.

SCAQMD. 2003a. *Air Quality Management Plan*. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2003-air-quality-management-plan/2003-aqmp-appendix-v.pdf.

SCAQMD. 2003b. *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis.* August 2003. http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis.

SCAQMD. 2004. Rule 201 – Permit to Construct. Amended December 3, 2004. https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-201.pdf?sfvrsn=4.

SCAQMD. 2005. Rule 404 – Fugitive Dust Amended June 3, 2005. https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf?sfvrsn=4.

SCAQMD. 2008. *Final Localized Significance Threshold Methodology*. July 2008.

SCAQMD. 2016. Rule 1113 – Architectural Coatings. Amended February 5, 2016. https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=24.

SCAQMD. 2017a. *Final 2016 Air Quality Management Plan*. March 3, 2017. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=11.

SCAQMD. 2017b. Regulation XIV – Toxics and Other Non-Criteria Pollutants. https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xiv.

SCAQMD. 2017c. "Rule 1401 – New Source Review of Toxic Air Contaminants." Last amended September 1, 2017. http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1401.pdf?sfvrsn=4.

SCAQMD. 2019. "SCAQMD Air Quality Significance Thresholds." Originally published in CEQA Air Quality Handbook, Table A9-11-A. Revised April 2019. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

SCAQMD. 2020. "Historical Data By Year: 2017, 2018, and 2019 Air Quality Data Tables." Accessed July 2020. https://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year.

SCAQMD. 2021a. "Air Quality Data Tables." [Online] https://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year.

SCAQMD 2021b. WAIRE Implementation Guidelines. June. Accessed December 2022. http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/waire-implementation-guidelines.pdf?sfvrsn=12.

SCAQMD. 2022. Riverside Airport Meteorological Data for AERMOD. Accessed October 2022. https://www.aqmd.gov/docs/default-source/air-quality/meterorological-data/aermod-ready-meteorological-data/table-1-meteorological-sites/2017/RiversideAirportADJU.zip?sfvrsn=7.

WRCC (Western Regional Climate Center). 2022. Riverside Fire Station 3 (047470). Accessed October 2022. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7470.

WRCOG (Western Riverside Council of Governments). 2005. Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities. September 12. Accessed October 2022. https://wrcog.us/DocumentCenter/View/318/Good-Neighbor-Guidelines-for-Siting-Warehouse-Distribution-Facilities-PDF?bidId=.

INTENTIONALLY LEFT BLANK

4.3 Biological Resources

This section describes the existing biological resource conditions of the proposed West Campus Upper Plateau Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Project. This analysis is based on a review of the following documents:

- Upper Plateau Project Biological Technical Report (Appendix D), prepared in 2022 by Rocks Biological Consulting
- Upper Plateau Project Aquatic Resources Delineation Report (Appendix E of Appendix D) prepared in 2021 by Rocks Biological Consulting

The Biological Technical Report and Aquatic Resources Delineation Report analyze the biological resources present within the Specific Plan Area plus an approximate 100-foot buffer, resulting in the Study Area, which encompasses 514.69 acres.

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

As discussed in detail in Chapter 3, Project Description of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

The following discussion and analysis of biological resources was conducted at the Project-level for the Specific Plan Area. The Conservation Easement was not evaluated for existing conditions, but the portions that overlap the 100-foot buffer around the Specific Plan Area are evaluated for indirect impacts due to its adjacency to the Specific Plan Area.

4.3.1 Existing Conditions

The following discussion summarizes the existing biological resources present within the Study Area. A description of the existing vegetation communities, special-status species, and jurisdictional waters, including wetlands and wildlife corridors, are discussed below. Note that the Biological Technical Report and Aquatic Resources Delineation Report analyzed the entire Study Area (514.69 acres); however, the Project impact calculations and impact table (Table 4-3.7) in Section 4.3.4 of this Draft EIR only analyzes the Specific Plan Area footprint (379.21 acres) for direct impacts. The remainder of the Study Area was evaluated for indirect impacts. Note that the Specific Plan Area is 370.30 acres. An additional area of 8.91 acres is proposed to be used for construction ingress/egress and staging for construction equipment (Staging Area footprint) and is also evaluated for direct impacts. Therefore, a total of 379.21 acres will be evaluated for direct impacts. Due to Project description changes following the general biological surveys, the buffer surrounding the Specific Plan area is slightly less than 100 feet in some areas. The buffer area which includes 135.4 acres is evaluated for indirect impacts. Despite these changes, the surveyed buffer area provides an adequate representation of adjacent biological resource habitat such that indirect impacts can be evaluated for the Project.

Vegetation Communities and Land Uses

The Study Area supports 14 vegetation communities and other land covers, as identified in Table 4.3-1 and Figure 4.3-1. Vegetation communities and land uses mapped within the Study Area are predominantly comprised of non-native grasslands, disturbed habitat, and urban/developed land cover (i.e., roads and structures). There are several small areas of native upland vegetation within the Study Area, including flat-topped buckwheat, encelia scrub, and Riversidean sage scrub. While there are no large stands of riparian vegetation communities within the Study Area, there are small stands of southern riparian forest, southern willow scrub, and mulefat scrub present, some of which are contiguous with larger areas of riparian habitat that lie adjacent to the Study Area, especially in the eastern portion of the Specific Plan Area.

Habitats within the Study Area were classified based on the dominant and characteristic plant species in accordance with vegetation community classifications outlined in Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) and are consistent with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) vegetation mapping classifications. Note that information regarding how each community is classified under the Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009) is also provided herein for reference.

Table 4.3-1. Vegetation Communities and Land Uses Within the Study Area

Vegetation Community[a]	Vegetation Community[b]	Global, State Rank[c]	Acres
Upland Vegetation Communities			
Encelia scrub	*Encelia farinosa* Shrubland Alliance	G5S4	3.64
Flat-topped buckwheat	*Eriogonum fasciculatum* Shrubland Alliance	G5S5	5.33
Riversidean sage scrub	*Eriogonum fasciculatum* Shrubland Alliance	G5S5	10.98
Riversidean sage scrub – disturbed	*Eriogonum fasciculatum* Shrubland Alliance - Disturbed	G5S5	5.47
Non-native grassland	*Bromus rubens – Schismus* (*arabicus, barbatus*) Herbaceous Semi-Natural Alliance	None	436.55

Table 4.3-1. Vegetation Communities and Land Uses Within the Study Area

Vegetation Community[a]	Vegetation Community[b]	Global, State Rank[c]	Acres
Non-native grassland – mustard dominated	*Brassica nigra – Centaurea* (*solstitialis*, *melitensis*) Herbaceous Semi-Natural Alliance	None	5.11
Ornamental	Developed/Disturbed	None	0.53
		Subtotal	*467.61*
Riparian Vegetation Communities			
Hoary nettle monotypic stand	*Urtica dioica* Alliance	None	0.45
Mulefat Scrub	*Baccharis salicifolia* Shrubland Alliance	G4S4	0.09
Southern riparian forest	*Salix gooddingii – Salix laevigata* Forest and Woodland Alliance[d]	G4S3	3.17
Southern willow scrub	*Salix lasiolepis* Shrubland Alliance	G4S4	0.21
Southern willow scrub – disturbed	*Salix lasiolepis* Shrubland Alliance – Disturbed	G4S4	0.11
		Subtotal	*4.03*
Land Covers			
Developed	Developed/ Disturbed	None	32.26
Disturbed Habitat	Developed/ Disturbed	None	10.80
		Subtotal	*43.06*
		Total	**514.69**

Notes: Numbers may not sum due to rounding.

[a] Holland 1986.

[b] Sawyer et al. 2009.

[c] NatureServe Global and State rarity ranks per Faber-Langendoen et al. (2012). Natural communities with global or state ranks of 1–3 are considered Sensitive Natural Communities by the California Department of Fish and Wildlife (CDFW 2020a) and are to be addressed in the environmental review processes of CEQA.

[d] Considered special-status by CDFW (CDFW 2021a)

Upland Vegetation Communities

Encelia farinosa Shrubland Alliance (Encelia scrub)

Encelia scrub generally occurs in soils that are well drained and rocky and is a low desert scrub community dominated by brittlebush (*Encelia farinosa*). This community supports a nearly monotypic stand of brittlebush within the Study Area. Additionally, it contains a scattering of sand aster (*Corethrogyne filaginifolia*), thickbracted goldenbush (*Ericameria palmeri* var. *pachylepis*), short-pod mustard (*Hirschfeldia incana*), and non-native grasses. Encelia scrub is found in the western, eastern, and central portions of the Study Area. This vegetation community is ranked as G5 and S4, meaning it is globally secure and "uncommon but not rare" in California (CNPS 2021).

Eriogonum fasciculatum Shrubland Alliance

Eriogonum fasiculatum Shrubland Alliance occurs in upland slopes, intermittently flooded arroyos, channels and washes. This alliance occurs in course, well drained soils that are moderately acidic to slightly saline. There are three vegetation communities within the Study Area that fall under this alliance and include California buckwheat community, Riversidean sage scrub community, and disturbed Riversidean sage scrub community (Figure 4.3-1). Each of these communities is further described below.

California buckwheat scrub

Within the Study Area, the California buckwheat scrub community is mono-typically dominated by California buckwheat *(Eriogonum fasciculatum)* in the shrub layer. The community is comprised of small to medium sized woody shrubs dominated by California buckwheat throughout the northern portion of the Study Area, as well as in the eastern portion of the Study Area. This community is identified as G5S5 meaning it is "demonstrably secure because of its worldwide/statewide abundance." (CNPS 2021).

Riversidean sage scrub

The Riversidean sage scrub community is a form of coastal sage scrub found in Riverside County. Within the Study Area, this community is dominated by California buckwheat, but also supports California sagebrush (*Artemisia californica*), brittlebush, thickbracted goldenbush, deerweed (*Acmispon glaber*), cane/valley cholla (*Cylindropuntia californica* var. *parkeri*), and non-native grasses. This vegetation community is found near the edges of the Study Area, in several small patches in the northern portion of the Study Area, as well as some deerweed-dominated patches near the center of the Study Area. This community is identified as G5S5 meaning it is "demonstrably secure because of its worldwide/statewide abundance." (CNPS 2021).

Disturbed Riversidean sage scrub

Disturbed Riversidean sage scrub community supports species characteristic to the Riversidean sage scrub community, as described above, but is characterized by heavy disturbance. This community is identified as G5S5 meaning it is "demonstrably secure because of its worldwide/statewide abundance." (CNPS 2021).

Bromus rubens – Schismus (arabicus, barbatus) Herbaceous Semi-Natural Alliance (Non-native grassland)

This non-native grassland alliance is found across all topography and soil textures. Within the Study Area, this community is dominated by slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), red brome (*Bromus rubens*), and rattail six-weeks grass (*Festuca myuros*). In addition, shortpod mustard, sand aster, deerweed, horehound (*Marrubium vulgare*), and vinegar weed (*Trichostema lanceolatum*) are present in lower numbers. This community occurs throughout the Study Area.

Brassica nigra – Centaurea (solstitialis, melitensis) Herbaceous Semi-Natural Alliance (Non-native grassland – mustard dominated)

This uplands mustard alliance typically occurs in fallow fields, grasslands, and disturbed coastal scrub and grows in soils that contain clays and sandy loams. Within the Study Area, this community supports stands of black mustard (*Brassica nigra*) and short-pod mustard, as well as lower numbers of non-native grass species. This community occurs in the southwestern and the far eastern portions of the Study Area (Figure 4.3-1).

Disturbed Habitat – Ornamental

Ornamental vegetation communities involved planted, non-native species associated with developed areas. There is a small ornamental vegetation community located in the far eastern portion of the Study Area that is associated with a developed road (Figure 4.3-1).

Riparian Vegetation Communities

Urtica dioica Alliance (Hoary nettle monotypic stand)

There is a hoary nettle (*Urtica dioica*) monotypic stand in one small area in the far southern portion of the Study Area (Figure 4.3-1). Hoary nettle is a perennial herb native to California that is equally likely to occur in wetland and non-wetland habitats. This monotypic stand is considered a riparian community, due to the fact it receives more moisture than the non-riparian areas immediately surrounding it. Hoary nettle monotypic stand is not recognized by CDFW (2021b); therefore, it is not considered a special-status species under CEQA.

Baccharis salicifolia Shrubland Alliance (Mulefat scrub)

Mulefat thickets alliance is typically associated with canyon bottoms, floodplains, irrigation ditches and stream channels, and prefers soils that are comprised of mixed alluvium (CNPS 2021). This community is found isolated from other areas of riparian habitat in the eastern portion of the Study Area and is dominated by mulefat (Figure 4.3-1). Mulefat scrub is ranked as G4S4, indicating that globally and statewide the alliance is considered apparently secure and "uncommon but not rare; some cause for long-term concern due to declines or other factors" (CNPS 2021).

Salix gooddingii – Salix laevigata Forest and Woodland Alliance (Southern riparian forest)

The southern riparian forest community is typically associated with terraces along large rivers, as well as seeps, springs, ditches, floodplains and lake edges. Within the Study Area, this community is co-dominated by Goodding's black willow (*Salix gooddingii*) and red willow (*Salix laevigata*). Other species associated with this community include mulefat, hoary nettle, broom baccharis (*Baccharis sarothroides*), seaside heliotrope (*Heliotropium curassavicum* var. *oculatum*), and blue elderberry (*Sambucus nigra* subsp. *caerulea*). This vegetation community occurs primarily along the southwestern boundary of the Study Area and is associated with drainages in those areas. It is also found in the eastern portion of the Study Area (Figure 4.3-1).

Southern riparian forest is ranked as G4 and S3, meaning that globally the alliance is considered apparently secure and "uncommon but not rare; some cause for long term concern due to declines or other factors" (CDFW n.d.). This ranking also indicates that within California, the alliance is considered sensitive by CDFW, as it is vulnerable "due to a restricted range, relatively few populations [often 80 or fewer], recent and widespread declines, or other factors making it vulnerable to extirpation" (CDFW n.d.).

Salix lasiolepis Shrubland Alliance (Southern willow scrub)

The southern willow scrub community is usually associated with stream banks and benches, slope seeps and drainages. Within the Study Area, this community supports dense, broadleaved, winter-deciduous riparian thickets dominated by several *Salix* species (Goodding's black willow, arroyo willow, and red willow) intermixed with mulefat and broom baccharis. This community is found in two small patches in the northern and western portions of the Study Area (Figure 4.3-1). This alliance is ranked by CDFW (2021b) as G4 and S4, indicating that globally and statewide it is considered apparently secure and "uncommon but not rare; some cause for long-term concern due to declines or other factors" (CDFW n.d.); as such, it is not considered a special status species under CEQA.

Disturbed Salix lasiolepis Shrubland Alliance (disturbed Southern willow scrub)

The disturbed southern willow scrub community has a similar plant composition as described above for southern willow scrub community but includes a high cover of non-native species in the understory, indicating marked

disturbance in the community. There is a single patch of disturbed southern willow scrub found within the northern portion of the Study Area (Figure 4.3-1).

Land Covers

Developed/Disturbed (Developed)

Developed land is comprised of human-made structures, parking lots, paved roads, and other maintained areas and it supports little to no native vegetation. This land cover occurs throughout the Study Area in the form of roads and buildings that were historically used for military activities (Figure 4.3-1).

Developed/Disturbed (Disturbed)

Disturbed land contains vegetation but little to no native vegetation and is typically associated with human-made disturbances (i.e., vegetation clearing, moving, vehicle disturbance, etc.). This land cover is present throughout the Study Area and is made up of bare dirt roads (Figure 4.3-1).

Special-Status Plant and Wildlife Species

For this analysis, special-status plant species include those that are (1) endangered or threatened plant species recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA); (2) CRPR List 1 through 2 (CNPS 2020); or (3) considered rare, endangered, or threatened by the California Department of Fish and Wildlife (CDFW) or local government agencies. Species with CRPR 1 and 2 are considered rare, threatened, or endangered in California (CNPS 2020). Species with CRPR 3 and 4 are not considered "rare," but only limited in distribution or infrequent throughout a broader range in California (e.g., "watch list" species) (CNPS 2020). Thus, given that CEQA requires findings of significance for projects that "threaten to…reduce the number or restrict the range of a rare or endangered plant," CRPR 3 and 4 plant species are not analyzed according to CEQA.

Special-status wildlife species include those that are (1) endangered or threatened wildlife species recognized in the context of CESA and FESA, (2) California Species of Special Concern (SSC) and Watch List (WL) species as designated by CDFW, and (3) mammals and birds that are fully protected species as described in California Fish and Game Code Sections 4700 and 3511.

Special-status plant and wildlife species with a low and very low potential to occur or are not expected to occur are not addressed further in this section, as these species are not anticipated to be present and therefore any impacts to these species are not anticipated or would be less than significant.

Special-Status Plants

All plant species observed during the biological surveys are listed in Appendix D. Twenty-eight special-status plant species with recorded occurrences (CDFW 2021b; CNPS 2021) in the Project vicinity were assessed for potential to occur in the Study Area and are listed in Table 4.3-2, below. Focused botanical surveys were conducted on June 6 and 7, 2022.

One special-status species, smooth tarplant (*Centromadia pungens* ssp. *laevis*), has a moderate potential to occur within the Study Area. This species has a CRPR rank of 1B.1, meaning it is rare, threatened, or endangered in California and elsewhere, and seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat). Smooth tarplant is also a State Rank S2, meaning it is imperiled in the state because of rarity

due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province (CNPS 2021). Focused rare plant surveys for smooth tarplant were conducted within the Study Area in June 2022. Smooth tarplant was confirmed absent during this survey.

Paniculate tarplant (*Deinandra paniculata*), a CRPR 4.2 species, was observed during the focused botanical surveys. The species was detected within the Specific Plan Area and the Staging Area along the access roads as well as within the northern portion of the site. Species with CRPR 4 are not considered "rare," but only limited in distribution or infrequent throughout a broader range in California (e.g., "watch list" species) (CNPS 2020). Thus, given that CEQA requires findings of significance for projects that "threaten to…reduce the number or restrict the range of a rare or endangered plant," paniculate tarplant will not be analyzed further.

Table 4.3-2 Special-Status Plant Species with Potential to Occur Within the Upper Plateau Project Study Area

Species	Status	Habitat Description	Potential to Occur
Bristly sedge (*Carex comosa*)	CRPR 2B.1	Perennial rhizomatous herb. Blooms May-September. Coastal prairie, marshes and swamps, valley and foothill grassland. Elevation 0-2,050 feet.	None. Suitable coastal prairies, marshes and swamps not present. Grassland habitat in the Study Area is disturbed.
California satintail (*Imperata brevifolia*)	CRPR 2B.1	Perennial rhizomatous herb. Blooms September-May. Chaparral, coastal scrub, meadows and seeps, Mojavean desert scrub, and riparian scrub. Elevation 0- 3,986 feet.	Very low. No chaparral, coastal scrub, meadows and seeps, Mojavean desert scrub, and limited riparian scrub habitat present.
California screw moss (*Tortula californica*)	CRPR 1B.2	Moss. Sandy soils within chenopod scrub, valley and foothill grassland. Elevation 35-4,790 feet.	None. Suitable chenopod scrub not present. Grassland habitat in the Study Area is disturbed.
Chaparral ragwort (*Senecio aphanactis*)	CRPR 2B.2	Annual herb. Blooms January April/May. Chaparral, cismontane woodland, and coastal scrub. Elevation 50- 2,625 feet.	Very low. No chaparral, cismontane woodland or coastal scrub habitat present.
Chaparral sand verbena (*Abronia villosa* var. *aurita*)	CRPR 1B.1	Annual herb. Blooms (January)March-September. Sandy chaparral, coastal scrub and desert dunes. Elevation 245-5,250 feet.	None. Suitable sandy chaparral, coastal scrub and desert dunes habitat not present.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	CRPR 1B.1	Annual herb. Blooms February-June. Coastal salt marshes and swamps, playas, and vernal pools. Elevation 5-4,005 feet.	None. Suitable habitat not present.
Deep Canyon snapdragon (*Pseudorontium cyathiferum*)	CRPR 2B.3	Annual herb. Blooms February-April. Sonoran desert scrub. Elevation 0-2,625 feet.	None. Sonoran desert scrub habitat not present.
Horn's milk-vetch (*Astragalus hornii* var. *hornii*)	CRPR 1B.1	Annual herb. Blooms May October. Meadows and seeps, and playas. Elevation 195-2,790 feet.	None. Suitable meadows and seeps, and playa habitats not present.
Long-spined spineflower (*Chorizanthe*	CRPR 1B.2	Annual herb. Blooms April July. Chaparral, coastal scrub, meadows and seeps, valley and foothill	Very low. Suitable habitat not present; grassland habitat in the Study Area is disturbed.

Table 4.3-2 Special-Status Plant Species with Potential to Occur Within the Upper Plateau Project Study Area

Species	Status	Habitat Description	Potential to Occur
polygonoides var. *longispina*)		grassland, and vernal pools. Elevation 100- 5,020 feet.	
Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*)	CRPR 1A	Perennial rhizomatous herb. Blooms August-October. Marshes and swamps. Elevation 35-5,005 feet.	None. Suitable marsh and swamp habitat not present.
Many-stemmed dudleya (*Dudleya multicaulis*)	CRPR 1B.2	Perennial herb. Blooms April July. Chaparral, coastal scrub, and valley and foothill grassland. Elevation 50-2,590 feet.	Very low. Suitable chaparral, coastal scrub habitat not present. Grassland habitat in the Study Area is disturbed.
Mesa horkelia (*Horkelia cuneata* var. *puberula*)	CRPR 1B.1	Perennial herb. Blooms February-July. Chaparral, cismontane woodland, and coastal scrub. Elevation 230- 2,660 feet.	Very low. Suitable chaparral, cismontane woodland, or coastal scrub not present.
Munz's onion (*Allium munzii*)	FE; ST; CRPR 1B.1	Perennial bulbiferous herb. Blooms March-May. Chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland. Clay and mesic microhabitat. Elevation 975- 3,510 feet.	Very low. Suitable chaparral, cismontane woodland, coastal scrub, or pinyon and juniper woodland not present. Grassland habitat in the Study Area is disturbed.
Nevin's barberry (*Berberis nevinii*)	FE; SE; CRPR 1B.1	Perennial evergreen shrub. Blooms (February)March June. Chaparral, cismontane woodland, coastal scrub, and riparian scrub. Elevation 230-2,705 feet.	None. Species is visible year-round and was not detected during surveys.
Parish's brittlescale (*Atriplex parishii*)	CRPR 1B.1	Annual herb. Blooms June October. Chenopod scrub, playas, and vernal pools. Elevation 80-6,235 feet.	None. Suitable habitat not present.
Parish's desert thorn (*Lycium parishii*)	CRPR 2B.3	Perennial shrub. Blooms April June. Coastal scrub and Sonoran desert scrub. Elevation 445-3,280 feet.	None. Suitable chaparral and Sonoran desert scrub habitat not present.
Parry's spineflower (*Chorizanthe parryi* var. *parryi*)	CRPR 1B.1	Annual herb. Blooms April June. Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevation 900-4005 feet.	Very low. Suitable chaparral, cismontane woodland, or coastal scrub not present. Grassland habitat in the Study Area is disturbed.
Prairie wedge grass (*Sphenopholis obtusata*)	CRPR 2B.2	Perennial herb. Blooms April July. Cismontane woodland, and meadows and seeps. Elevation 985-6,560 feet.	None. No cismontane woodland, or meadow and seep habitat present.
Salt spring checkerbloom (*Sidalcea neomexicana*)	CRPR 2B.2	Perennial herb. Blooms March June. Chaparral, coastal scrub, lower montane coniferous forests, Mojavean desert scrub, and playas. Elevation 50-5,020 feet.	Low. Suitable chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, or playa habitat not present.
San Bernardino aster (*Symphyotrichum defoliatum*)	CRPR 1B.2	Perennial rhizomatous herb. Blooms July-November. Cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, meadows and seeps,	Very low. Suitable cismontane woodland, coastal scrub, lower montane coniferous forest, or marsh and swamp habitat not present. Grassland habitat in the Study Area is disturbed.

Table 4.3-2 Special-Status Plant Species with Potential to Occur Within the Upper Plateau Project Study Area

Species	Status	Habitat Description	Potential to Occur
		and valley and foothill grassland. Elevation 7-6,690 feet.	
San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*)	FE; CRPR 1B.1	Annual herb. Blooms April August. Playas, valley and foothill grassland, and vernal pools. Elevation 455-1,640 feet.	None. Suitable playa habitat not present. Grassland habitat on site is disturbed. Suitable vernal pool habitat not observed in the Study Area.
Santa Ana River woollystar (*Eriastrum densifolium* ssp. sanctorum)	FE; SE; CRPR 1B.1	Perennial herb. Blooms April September. Chaparral and coastal scrub. Elevation 300- 2,000 feet.	None. Suitable chaparral or coastal scrub habitat not present.
Slender-horned spineflower (*Dodecahema leptoceras*)	FE; SE; CRPR 1B.1	Annual herb. Blooms April June. Chaparral, cismontane woodland, and coastal scrub. Elevation 655-2,495 feet.	None. Suitable chaparral, cismontane woodland, or coastal scrub habitat not present.
Smooth tarplant (*Centromadia pungens* ssp. *laevis*)	**CRPR 1B.1**	**Annual herb. Blooms April September. Chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland. Elevation 0-2,100 feet.**	**Absent. Suitable habitat present, and species is known from the vicinity. This species was confirmed absent during focused botanical surveys in 2022.**
Spreading navarretia (*Navarretia fossalis*)	FT; CRPR 1B.1	Annual herb. Blooms April June. Chenopod scrub, marshes and swamps, playas, and vernal pools. Elevation 98-2,150 feet.	None. Suitable habitat not present.
Thread-leaved brodiaea (*Brodiaea filifolia*)	FT; SE; CRPR 1B.1	Perennial bulbiferous herb. Blooms March-June. Chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools. Elevation 82-3,675 feet.	Low. Suitable habitat present, however grassland habitat in the Study Area is disturbed and the species is not known from the general vicinity.
White rabbit tobacco (*Pseudognaphalium leucocephalum*)	CRPR 2B.2	Perennial herb. Blooms (July/August November/December). Chaparral, cismontane woodland, coastal scrub, and riparian woodland. Elevation 0-6,890 feet.	Low. Chaparral, cismontane woodland, coastal scrub, or riparian woodland habitat not present.
White-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*)	CRPR 1B.2	Annual herb. Blooms April June. Coastal scrub, Mojavean desert scrub, and pinyon and juniper woodland. Elevation 985-3,935 feet.	Low. Suitable coastal scrub, Mojavean desert scrub, or pinyon and juniper woodland not present.

Notes:
FE: Federally Endangered (FE)
FT: Federally Threatened (FT)
SE: State Endangered (SE)
ST: State Threatened (ST)
Bold text indicates species meets CEQA criteria to be analyzed for impacts.

Special-Status Wildlife

A total of 24 special-status wildlife species with recorded occurrences (CDFW 2021b) in the Project vicinity were assessed for potential to occur in the Study Area. One federal and state listed species, least Bell's vireo (*Vireo bellii pusillus)*, was observed during the general biological surveys approximately 75 feet outside of the Study Area during general biological surveys.

While not observed during the general biological surveys, four additional federally or state listed species have been documented within three miles of the Study Area and have potential to occur in the Study Area. Stephens' kangaroo rat (*Dipodomys stephensi)* is federally listed as endangered and state listed as threatened, and has a high potential to occur within the Study Area. Riverside fairy shrimp (*Streptocephalus woottoni*) is federally listed as endangered and has a low-to-moderate potential to occur within the Study Area. Vernal pool fairy shrimp (*Branchinecta lynchi)* is federally threatened and has a low-to-moderate potential to occur within the Study Area. Coastal California gnatcatcher (*Polioptila californica californica*) is federally threatened and a species of special concern and was determined to have a moderate or low-to-moderate potential to occur in the Study Area.

Three species designated as Species of Special Concern (SSC), including coastal whiptail (*Aspidoscelis tigris stejnegeri*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), and yellow warbler (*Setophaga petechia*), and one CDFW Watch List (WL) species, Cooper's hawk (*Accipiter cooperii*), were observed in the Study Area during the general biological surveys in 2021.

An additional four CDFW SSC or WL species have a moderate or high potential to occur in the Study Area: orange-throated whiptail (*Aspidoscelis hyperythra*), burrowing owl (*Athene cunicularia*), California horned lark (*Eremophila alpestris actia*), and western yellow bat (*Lasiurus xanthinus*). Table 4.3-3 details the analysis of the potential for special-status wildlife to occur in the Study Area.

Table 4.3-3. Special-Status Wildlife Species with Potential to Occur Within the Study Area

Species	Status	Habitat Description	Potential to Occur
Invertebrates			
Riverside fairy shrimp (*Streptocephalus woottoni*)	FE	Vernal pools or other seasonal pools with a depth greater than 30 cm.	Absent. Limited ponding features observed during Project surveys that appear to be deep enough for this species, which typically occurs in pools greater than 30 cm in depth. This species was confirmed absent during protocol surveys conducted in 2021 and 2022.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Natural vernal pools or other seasonal pools.	Absent. Potential ponding features observed on site may be suitable for this species, which is typically found in deep, naturally occurring vernal pools. This species was confirmed absent during protocol surveys conducted in 2021 and 2022.
Amphibians			
Western spadefoot (*Spea hammondii*)	SSC	Temporary ponds, vernal pools, and backwaters of flowing creeks,	Present. Suitable vernal pool habitats and adjacent upland

Table 4.3-3. Special-Status Wildlife Species with Potential to Occur Within the Study Area

Species	Status	Habitat Description	Potential to Occur
		as well as adjacent upland habitats such as grasslands and coastal sage scrub for burrowing.	habitats are limited. Flowing creeks not present. Species observed within Study Area outside of Specific Plan Area during 2021 surveys.
Reptiles			
Coast horned lizard (*Phrynosoma blainvillii*)	SSC	A variety of habitats including sage scrub, chaparral, and coniferous and broadleaf woodlands. Found on sandy or friable soils with open scrub. Requires open areas, bushes, and fine loose soil.	Low. Suitable sage scrub present on site is limited. Suitable chaparral or coniferous and broadleaf woodland habitats are not present on site; this species is more common near the coast.
Coastal whiptail (*Aspidoscelis tigris stejnegeri*)	SSC	A variety of rocky, sandy, dry habitats including sage scrub, chaparral, woodlands on friable loose soil.	Present. Species observed within Study Area outside of Specific Plan Area during 2021 surveys.
Orange-throated whiptail (*Aspidoscelis hyperythra*)	WL	A variety of habitats including sage scrub, chaparral, and coniferous and broadleaf woodlands. Found on sandy or friable soils with open scrub.	Moderate. Suitable sage scrub habitat on site is limited. Suitable chaparral or coniferous and broadleaf woodland habitat not present. This species was not incidentally detected during 2021 or 2022 surveys.
Red-diamond rattlesnake (*Crotalus ruber*)	SSC	Chaparral, coastal sage scrub, along creek banks, and in rock outcrops or piles of debris. Often associated with dense vegetation in rocky areas.	Low. Suitable chaparral, coastal sage scrub, or creek bank habitats are limited or not present.
Birds			
Burrowing owl (*Athene cunicularia*)	SSC (at burrowing sites and some wintering sites)	Found in grasslands and open scrub from the coast to foothills. Strongly associated with California ground squirrel (Otospermophilus beecheyi) and other fossorial mammal burrows.	Assumed Present. Unoccupied burrows with sign observed on site during 2021 surveys. Suitable grassland habitat with California ground squirrel and other fossorial mammal burrows present throughout site. Protocol surveys have not been conducted but this species was not incidentally detected during 2021 or 2022 surveys. Based on the presence of previously occupied burrows, this species is assumed present.
California horned lark (*Eremophila alpestris actia*)	WL	Found from coastal deserts and grasslands to alpine dwarf-shrub habitat above tree line. Also seen in coniferous or chaparral habitats.	Present. Species observed within Specific Plan Area during 2021 surveys..
Coastal California gnatcatcher	FT, SSC	Found in sage scrub and adjacent chaparral habitats often	Absent. Suitable sage scrub habitat exists on site; however, is isolated

Table 4.3-3. Special-Status Wildlife Species with Potential to Occur Within the Study Area

Species	Status	Habitat Description	Potential to Occur
(*Polioptila californica californica*)		containing buckwheat or sagebrush.	and disturbed. Confirmed absent during protocol surveys conducted in 2021-2022.
Cooper's hawk (*Accipiter cooperii*)	WL (when nesting)	Usually found in oak woodlands but occasionally in willow or eucalyptus woodlands.	Present. Species observed in Study Area during 2021 surveys. Suitable nesting habitat exists in the Project buffer in southern riparian forest and ornamental trees associated with the adjacent residential development.
Least Bell's vireo (*Vireo bellii pusillus*)	FE (when nesting); SE (when nesting)	Riparian woodland with understory of dense young willows or mulefat and willow canopy. Nests often placed along internal or external edges of riparian thickets.	Present. Species observed approximately 75 feet southeast of the Specific Plan Area during 2022 general biological survey and is known to occur in areas east and southeast of the site. Protocol surveys were negative within the Specific Plan Area, but positive in the Study Area outside of the Specific Plan Area.
Loggerhead shrike (*Lanius ludovicianus*)	SSC (when nesting)	Found within grassland, chaparral, desert, and desert edge scrub, particularly near dense vegetation used for nesting.	Low. Suitable foraging habitat is present, but dense nesting habitat is not present.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE, SE	Dense riparian woodlands comprised of willows and cottonwoods.	Low. Riparian habitat within Specific Plan Area is relatively isolated and lacks dense cover suitable for this species.
Tricolored blackbird (*Agelaius tricolor*)	ST (nesting colony)	Found nesting in wetlands with cattails, bulrushes, and willows. Forages in cultivated fields, feedlots associated with dairy farms, and wetlands.	None. Suitable wetland habitat not present.
Yellow Warbler (*Setophaga petechia*)	SSC	Found within riparian woodlands, including disturbed habitats, and are associated with streamside cottonwood, willow, alder, and ash trees.	Present. Species observed within Study Area during 2022 surveys.
Mammals			
Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)	SSC	Found in low elevation grassland, alluvial sage scrub, and coastal sage scrub.	Low. Suitable alluvial sage scrub and native grassland habitat not present and coastal sage scrub on site is isolated and disturbed.
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax)*	SSC	Found in shrublands that vary from sparse desert shrubland to dense coastal sage scrub.	Low. Suitable sage scrub habitat exists on site; however, is isolated and disturbed.

Table 4.3-3. Special-Status Wildlife Species with Potential to Occur Within the Study Area

Species	Status	Habitat Description	Potential to Occur
Pocketed free tailed bat (*Nyctinomops femorosaccus*)	SSC	Found in pinyon-juniper woodlands, desert scrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis habitats. Roosts in rock crevices in cliffs and must drop from the roost to gain flight speed.	Low. Suitable rocky outcrops and abundant foraging habitat are present within the Specific Plan Area.
San Bernardino kangaroo rat (*Dipodomys merriami parvus*)	FE, SSC	Primarily found in alluvial scrub and floodplain habitats containing sandy loam substrate and open vegetative cover.	None. Suitable alluvial scrub and floodplain habitat not present.
San Diego black tailed jackrabbit (*Lepus californicus bennettii*)	**SSC**	**Habitats include early stages of chaparral, open coastal sage scrub, and grasslands near the edges of brush. Uses open land but requires some shrubs for cover.**	**Present. Species observed on site during 2021 surveys.**
Southern grasshopper mouse (*Onychomys torridus ramona*)	SSC	Occurs primarily in desert scrub habitats. Habitats with low open and semi-open scrubs habitats including coastal sage scrub, mixed chaparral, low sagebrush, riparian scrub. Annual grassland with scattered shrubs, are less frequently inhabited by this species.	Low. Suitable desert scrub habitats not present.
Stephens' kangaroo rat (*Dipodomys stephensi*)	**FE; ST**	**Habitats include annual grassland and coastal sage scrub with sparse shrub cover. Commonly in association with *Eriogonum fasciculatum, Artemisia californica*, and *Erodium cicutarium*, in areas with loose, friable, well-drained soil, and flat or gently rolling terrain.**	**Assumed Present. Suitable grassland habitat, *Eriogonum fasciculatum*, and friable soils present. Species has been reported on site historically (USFWS, CNDDB). Protocol surveys have not been conducted but this species was not incidentally detected during 2021 or 2022 surveys. Due to the known occurrences in the region, this species is assumed present.**
Western yellow bat (*Lasiurus xanthinus*)	**SSC**	**Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees.**	**Moderate. Suitable southern riparian forest provides roosting and foraging habitat. Protocol surveys have not been conducted but this species was not incidentally detected during 2021 or 2022 surveys.**

Notes:
FE: Federally Endangered (FE)
FT: Federally Threatened (FT)
SE: State Endangered (SE)
ST: State Threatened (ST)
SSC: California Department of Fish and Wildlife (CDFW) Species of Special Concern
WL: (CDFW) Watch List Species
Bold text indicates species meets CEQA criteria to be analyzed for impacts.

Federal and/or State Listed Species

Invertebrates

Riverside Fairy Shrimp

Based on the 2008 5-year review for Riverside fairy shrimp, there are 45 known extant or presumed extant occurrences of this species in approximately 200 vernal pools and vernal pool complexes throughout the species' range, 24% of which are located in Riverside County. Both CNDDB (CDFW 2021a) and USFWS (2021) queries show two historical occurrences of Riverside fairy shrimp within three miles of the Specific Plan Area at March Air Reserve Base. The Study Area supports potential ponding features that may be inundated for periods greater than 120 days or pond at a depth greater than 30 centimeters, and therefore could be suitable for Riverside fairy shrimp. As such, protocol wet-season and dry-season surveys for Riverside fairy shrimp were conducted during from 2021 to 2022 and were negative for Riverside fairy shrimp.

Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp has not been reported in the Study Area, however, on-site ponding features support potentially suitable habitat for this species (CDFW 2021a). Vernal pool fairy shrimp require a longer ponding period and deeper pools, with depths up to 16 inches, as compared to Riverside fairy shrimp (Chester 2007). The Study Area supports features that likely remain inundated for long periods, and therefore may be suitable for vernal pool fairy shrimp. As such, vernal pool fairy shrimp has a low to moderate potential to occur in the Study Area. Protocol wet-season and dry-season surveys for vernal pool fairy shrimp were conducted from 2021 to 2022 and were negative for vernal pool fairy shrimp.

Birds

Coastal California Gnatcatcher

Coastal California gnatcatcher generally inhabit coastal sage scrub dominated by California sagebrush and flat-topped buckwheat, generally below 1,500 feet in elevation along the coastal slope. Coastal California gnatcatcher has been observed at Sycamore Canyon Wilderness Park, located about half a mile north of the Study Area. Although the species was not documented during general biological surveys, suitable habitat occurs as patches within the Study Area. As such, coastal California gnatcatcher has a low to moderate potential to occur within the Study Area. USFWS protocol surveys for coastal California gnatcatcher were completed from Winter 2021 to Spring 2022. The nine-visit, non-breeding season survey protocol was followed. Survey results of coastal California gnatcatcher were negative within the Study Area.

Least Bell's Vireo

Least Bell's vireo is restricted to riparian woodland and is most frequently found in areas that include an understory of dense young willows or mulefat with a canopy of tall willows. This species was detected just outside of the Study Area during general biological surveys in 2021 (Figure 4.3-1).

Several small drainages occur within the Study Area; however, most do not support suitable habitat for least Bell's vireo. The drainages on the west and north ends of the Study Area are very small and isolated, with only one supporting minimal and fragmented southern willow scrub; as such neither of these areas are expected to support least Bell's vireo. The drainage on the eastern end of the Study Area (which bisects the proposed Cactus Street extension), does

support suitable least Bell's vireo habitat. Focused surveys for least Bell's vireo were conducted in the Spring and Summer of 2022. The Specific Plan Area was negative for least Bell's vireo; however, the species was detected within the buffer zone of the Study Area. Three least Bell's vireo individuals were observed during protocol surveys outside of the Specific Plan Area and Staging Area, but within nearby riparian habitat. Two individuals were observed approximately 200 to 300 feet from the Specific Plan Area. The third individual was documented after the fourth survey in the southern riparian forest approximately 750 feet southeast of the Specific Plan Area. The linear riparian corridors in which least Bell's vireo was observed do not extend onto the Specific Plan Area.

Mammals

Stephens' Kangaroo Rat

Stephens' kangaroo rat has been reported extensively in the Study Area and in immediately surrounding areas (USFWS; Figure 4.3-2). Suitable grassland habitat, California buckwheat scrub habitat, and friable soils are present in the Study Area. As such, this species is assumed to occur in the Study Area.

Species of Special Concern and Watch List Wildlife Species

Reptiles

Coastal Whiptail

Coastal whiptail, also known as San Diego tiger whiptail, is a subspecies of the tiger whiptail and is designated a CDFW SSC. The coastal whiptail is threatened by habitat loss and fragmentation due to development. Coastal whiptail was documented in the scrub habitat within the eastern portion of the Study Area during 2021 general biological surveys (Figure 4.3-1). Suitable habitat for this species occurs throughout the Study Area.

Orange-Throated Whiptail

The orange-throated whiptail is a CDFW WL species that inhabits chaparral, non-native grassland, coastal sage scrub, juniper woodland, and oak woodland in southwestern California and Baja California from sea level to 3,400 feet. The orange throated-whiptail is threatened by habitat loss and conversion of shrub-dominated habitats to non-native grassland. Orange-throated whiptail was not observed during the general biological surveys but has moderate potential to occur within the Study Area based on the presence of suitable sage scrub habitat.

Birds

Burrowing Owl

Burrowing owl is designated a CDFW SSC at nesting sites and federally protected by the Migratory Bird Treaty Act. In California, suitable habitat for burrowing owl is generally characterized by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils, such as naturally occurring grassland, shrub steppe, and desert habitats (Haug et al. 1993). Burrowing owl may also occur in agricultural areas, ruderal grassy fields, vacant lots, and pastures containing suitable vegetation structure and useable burrows with foraging habitat in proximity (Gervais et al. 2008).

Burrowing owls were not documented during the general biological surveys in 2021 or 2022; however, unoccupied burrows with sign (i.e., pellets) were observed in the southern portion of the Study Area. Burrowing owl has also

been documented within less than one mile to the west of the Specific Plan Area (Appendix D). Suitable grassland habitat with California ground squirrel and other fossorial mammal burrows is consistent throughout the Study Area. As such, burrowing owl has high potential to occur in the Study Area and is assumed present.

California Horned Lark

California horned lark is designated a CDFW WL species and is found from coastal deserts and grasslands to alpine dwarf-shrub habitat above tree line, and in coniferous or chaparral habitats. Threats to this species include habitat destruction and fragmentation. California horned lark was not observed during general biological surveys in 2021; however, suitable grassland habitat is widespread throughout Study Area. As such, California horned lark has high potential to occur within the Study Area.

Cooper's Hawk

Cooper's hawk is a CDFW WL species when nesting. Habitat loss, especially in riparian areas, is attributed to declining populations of Cooper's hawk in Southern California. Other threats include direct or indirect human disturbance at nest sites (Terres 1980). Cooper's hawk was documented flying over the eastern Study Area during 2021 general biological surveys.

Yellow Warbler

Yellow warbler is a CDFW SSC when nesting. In southern California, yellow warblers nest in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs in open-canopy riparian woodland up to 8,000 feet. Yellow warblers are threatened by habitat destruction and fragmentation especially of riparian habitats and brood-parasitism by brown-headed cowbirds. Yellow warbler was observed in the southern riparian forest within the Study Area along the western boundary.

Mammals

San Diego Black-Tailed Jackrabbit

San Diego black-tailed jackrabbit is a CDFW SSC. San Diego black-tailed jackrabbit is found from the coast to the western slope of the coastal mountains, up to 6,000 feet above mean sea level. Population declines threaten this subspecies with extinction in the state. Major threats to black-tailed jackrabbit include habitat loss and fragmentation due to agriculture and urban development. One San Diego black-tailed jackrabbit was observed during Project general biological surveys in 2021, in the northern portion of the Study Area.

Western Yellow Bat

Western yellow bat is a CDFW SSC. In California, western yellow bat is found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats below 2,000 feet. This species roosts in trees and is an aerial insectivore (Zeiner et al. 1988-1990). Western yellow bats are threatened by habitat destruction and fragmentation especially of riparian habitats and broadcast application of pesticides. Western yellow bat was not observed during the general biological surveys in 2021, although no nocturnal surveys were conducted for the Study Area. Suitable roosting habitat in the form of riparian habitat for this species occurs within the Study Area. As such, western yellow bat has a moderate potential to occur.

Amphibians

Western Spadefoot

Western spadefoot is an SSC. It is found from sea level to 4,460 feet above mean sea level in California. Typical habitats include temporary ponds, vernal pools, and backwaters of flowing creeks, as well as adjacent upland habitats such as grasslands and coastal sage scrub for burrowing. This species of amphibian remains in underground burrows most of the year and is active on the surface at night during and following rain. Breeding and egg laying occur in ephemeral pools formed by rain; they begin after the first rains in winter and conclude at the end of March (Zeiner et al. 1988-1990). Tadpoles transform and disperse in the late spring.

Western spadefoot was heard calling incidentally during protocol non-breeding season coastal California gnatcatcher surveys. The species was observed in a riparian drainage within the southwestern Study Area, outside of the Specific Plan Area. The finding occurred during daylight hours following significant rain events. The habitat where detected is somewhat atypical of preferred breeding habitat as the riparian drainage has dense understory and canopy vegetation.

Jurisdictional Wetlands and Non-Wetland Waters

Jurisdictional wetland areas regulated by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) were delineated using the routine determination methods set forth in Part IV, Section D, Subsection 2 of the USACE 1987 Wetland Delineation Manual (USACE 1987) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 (USACE 2008). Jurisdictional non-wetland waters are determined by the ordinary high water mark (OHWM), which is defined in 33 Code of Federal Regulations (CFR) 329.11 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 the soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas."

CDFW potential jurisdictional non-wetland boundaries were determined based on the presence of lake and/or streambed and riparian habitat. Streambeds considered within CDFW jurisdiction were delineated based on the definition of streambed as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). Waters that flow "periodically" is synonymous with "ephemeral" flows, which occur following rain events and cease soon after. Riparian habitat refers to vegetation and habitat associated with a stream. CDFW jurisdictional habitat includes all riparian shrub or tree canopy that may extend beyond the banks of a stream.

The jurisdictional delineation of the Study Area was conducted on July 28, 2021. An additional aquatic resources field visit took place on August 6, 2021, following a wetter than normal range of precipitation.

Federal Jurisdictional Waters

Thirteen features were identified within the Study Area that met the parameters for federal non-wetland waters of the United States, totaling 0.54 acres (8,626 linear feet). These features are detailed in Table 4.3-4, below, and shown in Figure 4.3-3A. A summary of these features is provided below, more information for which is provided in the ARDR (Appendix D).

Table 4.3-4. Jurisdictional Federal Wetlands and Non-Wetland Waters Within the Study Area

Aquatic Resource Name	Cowardin Code	Active Channel Width Range (Feet)	Presence of OHWM/ Wetland	Dominant Vegetation[1]	Location (latitude, longitude)	Acre(s)[2]	Linear Feet
NWW-1	R6	2 – 2	Yes/No	Riversidean Sage Scrub	33.911494, -117.304933	0.04	821
NWW-2	R6	2 – 2	Yes/No	Riversidean Sage Scrub	33.911516, -117.306580	0.03	753
NWW-3	R6	1 – 2	Yes/No	Non-native Grassland	33.909152, -117.312802	0.03	813
NWW-4	R6	2 – 2	Yes/No	Non-native Grassland	33.905922, -117.312596	0.05	995
NWW-5	R6	1 – 5	Yes/No	Non-native Grassland	33.904494, -117.316792	0.12	2,159
NWW-6	R6	1 – 10	Yes/No	Southern Riparian Forest	33.900933, -117.312589	0.04	373
NWW-7	R6	3 – 3	Yes/No	Southern Riparian Forest	33.899747, -117.313461	0.02	236
NWW-7A	R6	2 – 2	Yes/No	Non-native Grassland – Mustard Dominated	33.899104,-117.313655	0.02	512
NWW-7A1	R6	1 – 1	Yes/No	Developed (Concrete-lined)	33.898410, -117.313369	<0.01	146
NWW-7A2	R6	1 – 1	Yes/No	Developed (Concrete-lined)	33.898233, -117.313761	0.01	216
NWW-8	R5	10 – 15	Yes/Yes	Southern Riparian Forest	33.902621,-117.318620	0.11	425
NWW-9	R6	2 – 3	Yes/No	Southern Riparian Forest	33.907245, -117.294771	0.05	974
NWW-10	R6	2 – 5	Yes/No	Southern Riparian Forest	33.907086, -117.291994	0.01	202
					Total	**0.54**	**8,626**

Notes:
OHWM = Ordinary High Water Mark
[1] See Figure 4.3-2 for all vegetation communities present within each aquatic resource.
[2] Acreages summed using raw numbers provided during GIS analysis (available upon request) and thus the sum of the total rounded numbers may not directly add up in this table.

USACE/RWQCB Non-Wetland Water 1

NWW-1 is a small ephemeral drainage feature primarily composed of patches of non-native grasses within Riversidean sage scrub with a minimally defined OHWM and bed and bank. NWW-1 occurs within the northern portion of the Study Area, as shown on Figure 4.3-3A, generally flows north, and travels for approximately 821 linear feet before continuing off site. The estimated OHWM within NWW-1 measured approximately 2 feet wide throughout the extent of NWW-1 (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 2

NWW-2 is a small ephemeral drainage feature primarily composed of patches of non-native grasses within Riversidean sage scrub with a minimally defined OHWM and bed and bank. NWW-2 occurs within the northern portion of the Study Area, just west of NWW-1, as shown on Figure 4.3-3A, generally flows northeast, and travels for approximately 753 linear feet before dissipating. The estimated OHWM within NWW-2 measured approximately 2 feet wide throughout the extent of NWW-2 (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 3

NWW-3 is a small ephemeral drainage feature primarily composed of non-native grasses with a minimally defined OHWM and bed and bank. NWW-3 occurs within the northwestern portion of the Study Area, as shown on Figure 4.3-3A, generally flows northwest, and travels for approximately 813 linear feet before dissipating. NWW-3 originates at a single culvert that historically drained flows from the abandoned bunker installation. An OHWM delineation was conducted within the drainage to confirm the presence or absence of OHWM indicators. Based on the data collected, the estimated OHWM measured approximately 1 foot to 2 feet wide throughout the extent of NWW-3 (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 4

NWW-4 is a small ephemeral drainage feature primarily composed of non-native grasses with a minimally defined OHWM and bed and bank. NWW-4 occurs within the western portion of the Study Area, as shown on Figure 4.3-3A, generally flows northwest, and travels for approximately 995 linear feet before dissipating. NWW-4 originates at a single culvert that historically drained flows from the abandoned bunker installation (See AD-1 under Abandoned Drainages 1 – 2 below). Based on the data collected, the estimated OHWM measured approximately 2 feet wide throughout the extent of NWW-4 (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 5

NWW-5 is an ephemeral drainage feature primarily composed of patches of non-native grasses with a minimally defined OHWM and bed and bank within portions of the upstream and downstream extents. NWW-5 occurs within the western portion of the Study Area, as shown on Figure 4.3-3A, generally flows northwest, and travels for approximately 2,159 linear feet before continuing off site. An OHWM delineation was conducted within the drainage to confirm the presence or absence of OHWM indicators. Based on the data collected, the estimated OHWM measured approximately 1 foot to 5 feet wide throughout the extent of NWW-5 (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 6

NWW-6 is an ephemeral drainage feature primarily composed of southern riparian forest vegetation. NWW-6 occurs within the southwestern portion of the Study Area, as shown on Figure 4.3-3A, and generally flows west. NWW-6

travels for approximately 130 linear feet before it continues off site for a brief distance then re-enters the Specific Plan Area and travels for approximately 243 linear feet before continuing over a dirt road and into a storm drain inlet. A wetland and OHWM delineation were conducted within NWW-6 to confirm the presence or absence of wetland parameters and/or OHWM indicators. Based on the data collected, the estimated OHWM ranged from 1 foot to 10 feet wide throughout the extent of NWW-6. NWW-6 did not meet all three federal wetland parameters (e.g., hydrophytic vegetation, hydric soils, and hydrology) (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 7

NWW-7 is an ephemeral drainage feature primarily composed of southern riparian forest vegetation. NWW-7 occurs within the southwestern portion of the Study Area, just south of NWW-6, as shown on Figure 4.3-3A, generally flows west/northwest, and travels for approximately 236 linear feet before continuing over a dirt road and into a storm drain inlet. The estimated OHWM measured approximately 3 feet wide throughout the extent of NWW-7 (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 7A

NWW-7A is an ephemeral drainage feature primarily composed of southern riparian forest vegetation with a minimally defined OHWM and bed and bank. NWW-7A occurs within the southwestern portion of the Study Area, as shown on Figure 4.3-3A, is a tributary to NWW-7, generally flows north, and travels for approximately 512 linear feet before converging with NWW-7. A wetland and OHWM delineation were conducted within NWW-7A to confirm the presence or absence of wetland parameters and/or OHWM indicators. Based on the data collected, the estimated OHWM measured approximately 2 feet wide throughout the extent of NWW-7A. NWW-7A did not meet all three federal wetland parameters (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 7A1

NWW-7A1 is a concrete v-ditch that occurs within the southwestern portion of the Study Area and is a tributary to NWW-7A. NWW-7A1, as shown on Figure 4.3-3A, generally flows west for approximately 146 linear feet before traveling through a culvert and converging with NWW-7A. A wetland and OHWM delineation were conducted within NWW-7A1 to confirm the presence or absence of wetland parameters and/or OHWM indicators. Based on the data collected, the estimated OHWM measured approximately 1-foot-wide throughout the extent of NWW-7A1. NWW-7A1 did not meet all three federal wetland parameters (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 7A2

NWW-7A2 is a concrete v-ditch that occurs within the southwestern portion of the Study Area and is a tributary to NWW-7A. NWW-7A2, as shown on Figure 4.3-3A, generally flows north then turns east for approximately 216 linear feet before traveling through a culvert and converging with NWW-7A. The estimated OHWM measured approximately 1-foot-wide throughout the extent of NWW-7A2 (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 8

NWW-8 is an intermittent drainage feature primarily composed of southern riparian forest vegetation. NWW-8 occurs within the southwestern portion of the Study Area, as shown on Figure 4.3-3A, commences off site at a culvert, and generally flows northwest for approximately 425 linear feet before continuing off site. Based on a review of historic aerials, prior to development of the land to the south/southeast of NWW-8 around September 2004, NWW-6 (and at times NWW-7) had a direct, surface hydrological connection to NWW-8. A wetland and OHWM

delineation were conducted within NWW-8 to confirm the presence or absence of wetland parameters and/or OHWM indicators. Based on the data collected, the estimated OHWM ranged from 10 feet to 15 feet wide throughout the extent of NWW-8. NWW-8 met all three federal wetland parameters; however, despite meeting the definition of a federal wetland, waters occurring within a defined OHWM are classified as non-wetland waters of the U.S. per USACE protocol (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 9

NWW-9 is an ephemeral drainage feature primarily composed of patches of non-native grasses within southern riparian forest with a minimally defined OHWM and bed and bank within the downstream extent. NWW-9 occurs within the southeastern portion of the Study Area, as shown on Figure 4.3-3A, generally flows northeast, and travels for approximately 974 linear feet before continuing off site. Based on the data collected, the estimated OHWM ranged from 2 feet to 3 feet wide throughout the extent of NWW-9. A wetland delineation was conducted within NWW-9 to confirm the presence or absence of wetland parameters. NWW-9 did not meet all three federal wetland parameters (Figure 4.3-3A and Figure 4.3-3B).

USACE/RWQCB Non-Wetland Water 10

NWW-10 is an ephemeral drainage feature primarily composed of patches of non-native grasses within southern riparian forest. NWW-10 occurs within the southeastern portion of the Study Area, east of NWW-9, as shown on Figure 4.3-3A, generally flows east/northeast, and travels in and out of the Study Area for approximately 202 linear feet. The estimated OHWM measured approximately 2 feet to 5 feet wide throughout the extent of NWW-10 (Figure 4.3-3A and Figure 4.3-3B).

State Jurisdictional Waters

The Study Area supports potentially jurisdictional waters of the state regulated by the RWQCB and CDFW, as depicted in Figure 4.3-3B, Aquatic Resources Delineation Map (RWQCB), and Figure 4.3-3C, Aquatic Resources Delineation Map (CDFW).

Regional Water Quality Control Board

Thirteen features were identified within the Study Area totaling 0.43 acres (8,201 linear feet) of non-wetland waters of the state and 0.11 acres (425 linear feet) of wetland waters of the state jurisdictional by the RWQCB. These features are detailed in Table 4.3-5, below, and depicted in Figure 4.3-3B.

RWQCB features are previously summarized under Federal Jurisdictional Waters, as their boundaries are coincident with the federal boundaries. More information is provided in the Upper Plateau Project Aquatic Resources Delineation Report (Appendix D).

Table 4.3-5. RWQCB Jurisdictional Streambed Summary Within the Study Area

Aquatic Resource Name	Cowardin Code	Active Channel Width Range (Feet)	Presence of OHWM/ Wetland	Dominant Vegetation[1]	Location (latitude, longitude)	Acre(s)[2]	Linear Feet
NWW-1	R6	2 – 2	Yes/No	Riversidean Sage Scrub	33.911494, -117.304933	0.04	821
NWW-2	R6	2 – 2	Yes/No	Riversidean Sage Scrub	33.911516, -117.306580	0.03	753
NWW-3	R6	1 – 2	Yes/No	Non-native Grassland	33.909152, -117.312802	0.03	813
NWW-4	R6	2 – 2	Yes/No	Non-native Grassland	33.905922, -117.312596	0.05	995
NWW-5	R6	1 – 5	Yes/No	Non-native Grassland	33.904494, -117.316792	0.12	2,159
NWW-6	R6	1 – 10	Yes/No	Southern Riparian Forest	33.900933, -117.312589	0.04	373
NWW-7	R6	3 – 3	Yes/No	Southern Riparian Forest	33.899747, -117.313461	0.02	236
NWW-7A	R6	2 – 2	Yes/No	Non-native Grassland – Mustard Dominated	33.899104, -117.313655	0.02	512
NWW-7A1	R6	1 – 1	Yes/No	Developed (Concrete- lined)	-33.898410, 117.313369	<0.01	146
NWW-7A2	R6	1 – 1	Yes/No	Developed (Concrete lined)	33.898233, -117.313761	0.01	216
NWW-8	R6	2 – 3	Yes/No	Southern Riparian Forest	33.907245, -117.294771	0.05	974
NWW-9	R6	2 – 5	Yes/No	Southern Riparian Forest	33.907086, -117.291994	0.01	202
WW-10	R5	10 – 15	Yes/Yes	Southern Riparian Forest	33.902621, -117.318620	0.11	425
					Total	**0.54**	**8,626**

Notes:
OHWM = Ordinary High Water Mark
[1] See Figure 4.3-2 for all vegetation communities present within each aquatic resource.
[2] Acreages summed using raw numbers provided during GIS analysis (available upon request) and thus the sum of the total rounded numbers may not directly add up in this table.

California Department of Fish and Wildlife

Thirteen features were identified within the Study Area totaling approximately 1.24 acres (8,263 linear feet) of vegetated streambed, 0.03 acres (363 linear feet) of unvegetated streambed, and 3.07 acres of riparian habitat jurisdictional by CDFW. These features are detailed in Table 4.3-6, below, and depicted in Figure 4.3-3C. A summary of these features is provided below, more information for which is provided in the Upper Plateau Project Aquatic Resources Delineation Report (Appendix D).

Table 4.3-6. CDFW Jurisdictional Streambed Summary Within the Study Area

Aquatic Resource Name	Aquatic Resource Type	Vegetation Community	Width Range[1] (Feet)	Location (latitude, longitude)	Acre(s)	Linear Feet[2]
NWW-1	Vegetated Streambed	Non-native Grassland	2 – 2	33.912243, -117.305090	<0.01	821
		Riversidean Sage Scrub		33.911293, -117.304889	0.03	
		Southern Willow Scrub – Disturbed		33.912318, -117.305115	0.01	
	Riparian Habitat[3]	Southern Willow Scrub – Disturbed	N/A	-33.912304, 117.305131	0.11	—
NWW-2	Vegetated Streambed	Non-native Grassland	2 – 2	33.911592, -117.306630	0.01	753
		Riversidean Sage Scrub		33.911400, -117.306598	0.02	
		Southern Willow Scrub		33.912106, -117.306343	<0.01	
	Riparian Habitat[3]	Southern Willow Scrub	N/A	33.912105, -117.306351	0.06	—
NWW-3	Vegetated Streambed	Non-native Grassland	1 – 6	33.909215, -117.312858	0.09	813
NWW-4	Vegetated Streambed	Non-native Grassland	2 – 5	33.905680, -117.312424	0.07	995
NWW-5	Vegetated Streambed	Non-native Grassland	2 – 10	33.904596, -117.316928	0.13	2,159
		Southern Riparian Forest		33.905635, -117.318069	<0.01	
		Southern Willow Scrub		33.904950, -117.317527	0.04	
	Riparian Habitat[3]	Southern Riparian Forest	N/A	33.905637, -117.318042	0.02	—
		Southern Willow Scrub		33.904920, -117.317499	0.10	
NWW-6	Vegetated Streambed	Disturbed Habitat	1 – 15	33.900947, -117.312342	<0.01	373
		Non-native Grassland		33.901001, -117.312045	0.01	
		Non-native Grassland – Mustard Dominated		33.900735, -117.313709	<0.01	
		Southern Riparian Forest		33.900887, -117.312964	0.06	
	Riparian Habitat[3]	Southern Riparian Forest	N/A	-33.900874, 117.313157	0.22	—
NWW-7	Vegetated Streambed	Disturbed Habitat	2 – 12	33.899868, -117.313731	<0.01	241
		Hoary Nettle Monotypic Stand		33.899657, -117.313302	<0.01	
		Non-native Grassland		33.899883, -117.313776	0.01	

Table 4.3-6. CDFW Jurisdictional Streambed Summary Within the Study Area

Aquatic Resource Name	Aquatic Resource Type	Vegetation Community	Width Range[1] (Feet)	Location (latitude, longitude)	Acre(s)	Linear Feet[2]
		Non-native Grassland – Mustard Dominated		33.899639, -117.313161	0.01	
		Southern Riparian Forest		33.899740, -117.313455	0.04	
	Riparian Habitat[3]	Hoary Nettle Monotypic Stand	N/A	33.899615, -117.313299	0.04	—
		Southern Riparian Forest		33.899761, -117.313501	0.13	
NWW-7A	Vegetated Streambed	Disturbed Habitat	2 – 2	33.898453, -117.313611	<0.01	505
		Non-native Grassland		33.898423, -117.313610	<0.01	
		Non-native Grassland – Mustard Dominated		33.899018, -117.313678	0.01	
		Southern Riparian Forest		33.899201, -117.313645	0.01	
	Riparian Habitat[3]	Hoary Nettle Monotypic Stand	N/A	33.899363, -117.313434	0.41	—
		Southern Riparian Forest		33.899153, -117.313653	0.21	
NWW-7A1	Unvegetated Streambed	Developed (Concrete-lined)	3 – 3	33.898410, -117.313369	0.01	147
NWW-7A2	Unvegetated Streambed	Developed (Concrete-lined)	3 – 3	33.898232, -117.313762	0.02	216
NWW-8	Vegetated Streambed	Southern Riparian Forest	10 – 30	33.902627, -117.318642	0.43	425
	Riparian Habitat[3]	Southern Riparian Forest	N/A	33.902603, -117.318539	0.33	—
NWW-9	Vegetated Streambed	Non-native Grassland	2 – 30	33.907754, -117.293851	0.02	974
		Southern Riparian Forest		33.906867, -117.295421	0.23	
	Riparian Habitat[3]	Southern Riparian Forest	N/A	33.907200, -117.294796	1.24	—
NWW-10	Vegetated Streambed	Southern Riparian Forest	2 – 5	33.907086, -117.291994	0.01	202
	Riparian Habitat[3]	Southern Riparian Forest	N/A	33.907173, -117.291772	0.20	–
				Total[4]	**4.33**	**8,626**

Notes:

1 Corresponds with the approximate stream bank widths observed during delineation. Width range accounts for entirety of streambed delineated, not individual vegetation communities.

2 Linear feet not calculated for individual aquatic resource type and vegetation community (including riparian habitat that occurs outside of delineated streambed) to avoid redundant linear foot calculation where such areas overlap.

3 Occurs outside of delineated streambed

4 Acreages and linear feet totals were summed using raw numbers provided during GIS analysis (available upon request) andthus the sum of the total rounded numbers may not directly add up in this table.

CDFW Non-Wetland Water 1: Vegetated Streambed and Associated Riparian Habitat

NWW-1 is a vegetated streambed with a minimally defined bed and bank that occurs within the northern portion of the Study Area. Specifically, NWW-1 is an approximately 821-linear foot feature measuring approximately 2 feet wide from bank to bank, generally within an area of Riversidean sage scrub. Riparian habitat observed as directly associated with the delineated NWW-1 streambed includes southern willow scrub – disturbed (Figure 4.3-3C).

CDFW Non-Wetland Water 2: Vegetated Streambed and Associated Riparian Habitat

NWW-2 is a vegetated streambed with a minimally defined bed and bank that occurs within the northern portion of the Study Area, just west of NWW-1. Specifically, NWW-2 is an approximately 753-linear foot feature ranging from approximately 1-foot-wide to 6 feet wide from bank to bank, generally within an area of Riversidean sage scrub. Riparian habitat observed as directly associated with the delineated NWW-2 streambed includes southern willow scrub (Figure 4.3-3C).

CDFW Non-Wetland Water 3: Vegetated Streambed

NWW-3 is a vegetated streambed with a minimally defined bed and bank that occurs within the northwestern portion of the Study Area. Specifically, NWW-3 is an approximately 813-linear foot feature ranging from approximately 1-foot-wide to 6 feet wide from bank to bank, within an area of non-native grassland (Figure 4.3-3C).

CDFW Non-Wetland Water 4: Vegetated Streambed

NWW-4 is a vegetated streambed with a minimally defined bed and bank that occurs within the western portion of the Study Area. Specifically, NWW-4 is an approximately 995-linear foot feature ranging from approximately 2 feet wide to 5 feet wide from bank to bank, within an area of non-native grassland (Figure 4.3-3C).

CDFW Non-Wetland Water 5: Vegetated Streambed and Associated Riparian Habitat

NWW-5 is a vegetated streambed with a minimally defined bed and bank within portions of the upstream and downstream extents that occurs within the western portion of the Study Area. Specifically, NWW-5 is an approximately 2,159- linear foot feature ranging from approximately 2 feet wide to 10 feet wide from bank to bank, generally within an area of non-native grassland. Riparian habitat observed as directly associated with the delineated NWW-5 streambed includes southern willow scrub and southern riparian forest (Figure 4.3-3C).

CDFW Non-Wetland Water 6: Vegetated Streambed and Associated Riparian Habitat

NWW-6 is a vegetated streambed that occurs within the southwestern portion of the Study Area. Specifically, NWW-6 is an approximately 373- linear foot feature ranging from approximately 1-foot-wide to 15 feet wide from bank to bank, generally within an area of southern riparian forest. Riparian habitat observed as directly associated with the delineated NWW-6 streambed includes southern riparian forest (Figure 4.3-3C).

CDFW Non-Wetland Water 7: Vegetated Streambed and Associated Riparian Habitat

NWW-7 is a vegetated streambed that occurs within the southwestern portion of the Study Area, just south of NWW-6. Specifically, NWW-7 is an approximately 236-linear foot feature ranging from approximately 2 feet wide to 12 feet wide from bank to bank, generally within an area of southern riparian forest. Riparian habitat observed as

directly associated with the delineated NWW-7 streambed includes southern riparian forest and hoary nettle monotypic stand (Figure 4.3-3C).

CDFW Non-Wetland Water 7A: Vegetated Streambed and Associated Riparian Habitat

NWW-7A is a vegetated streambed with a minimally defined bed and bank that occurs within the southwestern portion of the Study Area and is a tributary to NWW-7. Specifically, NWW-7A is an approximately 512-linear foot feature measuring approximately 2 feet wide from bank to bank, generally within areas of non-native grassland – mustard dominated and southern riparian forest. Riparian habitat observed as directly associated with the delineated NWW-7A streambed includes southern riparian forest and hoary nettle monotypic stand (Figure 4.3-3C).

CDFW Non-Wetland Water 7A1: Unvegetated Streambed

NWW-7A1 is an unvegetated, concrete v-ditch that occurs within the southwestern portion of the Study Area and is a tributary to NWW-7A. Specifically, NWW-7A1 is an approximately 146-linear foot feature measuring approximately 3 feet wide from bank to bank (Figure 4.3-3C).

CDFW Non-Wetland Water 7A2: Unvegetated Streambed

NWW-7A2 is an unvegetated, concrete v-ditch that occurs within the southwestern portion of the Study Area and is a tributary to NWW-7A. Specifically, NWW-7A2 is an approximately 216-linear foot feature measuring approximately 3 feet wide from bank to bank (Figure 4.3-3C).

CDFW Non-Wetland Water 8: Vegetated Streambed and Associated Riparian Habitat

NWW-8 is a heavily vegetated streambed that occurs within the southwestern portion of the Study Area. Specifically, NWW-8 is an approximately 425-linear foot feature ranging from approximately 10 feet wide to 30 feet wide from bank to bank, within an area of southern riparian forest. A portion of NWW-8 met all three federal wetland parameters. Riparian habitat observed as directly associated with the delineated NWW-8 streambed includes southern riparian forest (Figure 4.3-3C).

CDFW Non-Wetland Water 9: Vegetated Streambed and Associated Riparian Habitat

NWW-9 is a vegetated streambed with a minimally defined bed and bank within the downstream extent that occurs within the southeastern portion of the Study Area. Specifically, NWW-9 is an approximately 974-linear foot feature ranging from approximately 2 feet wide to 30 feet wide from bank to bank, within areas of southern riparian forest and non-native grassland. Riparian habitat observed as directly associated with the delineated NWW-9 streambed includes southern riparian forest (Figure 4.3-3C).

CDFW Non-Wetland Water 10: Vegetated Streambed and Associated Riparian Habitat

NWW-10 is a vegetated streambed that occurs within the southeastern portion of the Study Area, east of NWW-9. Specifically, NWW-10 is an approximately 202-linear foot feature ranging from approximately 2 feet wide to 5 feet wide from bank to bank, within an area of southern riparian forest. Riparian habitat observed as directly associated with the delineated NWW- 10 streambed includes southern riparian forest (Figure 4.3-3C).

Non-Jurisdictional Features

Additionally, the Study Area supports two abandoned drainages, one swale and one concrete-lined ditch that are not expected to be regulated by USACE, RWQCB, or CDFW due to the lack of observable OHWM or bed and bank. This would be confirmed through the regulatory permitting process as the final determination comes from the identified resource agencies. These features are further described below and depicted in Figure 4.3-3A.

Abandoned Drainages (AD) 1 – 2

Two abandoned drainages were observed during the field delineation that appeared to no longer convey regular flows on site.

AD-1 is a vegetated, earthen drainage that occurs within the western portion of the Study Area and originates at a single culvert that historically drained flows from the abandoned bunker installation. AD-1 appeared to no longer convey flows based on the lack of OHWM and bed and bank indicators and as evidenced by the single culvert located just west of AD-1, into which AD-1 likely previously contributed flows, which was blocked with sediment.

AD-2 is a vegetated, earthen drainage that occurs within the southwestern portion of Study Area and originates at a single culvert that historically drained flows from the abandoned bunker installation. AD-2 appeared to no longer convey flows based on the lack of OHWM and bed and bank indicators.

Swale (S) 1

One swale (S-1) was observed during the field delineation that did not display an observable OHWM, bed and bank, or other evidence of conveying regular flows on site. This disturbed swale feature also did not appear to convey flows to downstream aquatic resources via observed flow patterns, culverts, or other flow paths.

S-1 is a slightly concave drainage area located in the northwestern portion of the Study Area just northwest of the downstream extent of NWW-3. S-1 appeared to convey surface flows as runoff from the adjacent dirt road. Data collected in an area of non-native grassland within this feature, did not show evidence of a break in slope or a defined bed and bank between the swale and adjacent uplands. Additionally, there was no change in sediment texture, change in vegetation species or cover, or any other OHWM indicators between the swale and the adjacent upland area. Thus, S-1 was determined to not have an OHWM or defined bed and bank.

Ditch (D) 1

D-1 is a concrete-lined ditch/stormwater conveyance feature located within the northern portion of the Study Area. Based on a review of historic aerials, D-1 was created in uplands to direct flows from a culvert outlet away from the developed area and onto the adjacent gravel road. D-1 displayed an artificial break in bank slope but did not exhibit any other OHWM indicators. Additionally, D-1 did not display an observable bed and bank, lacked association with a natural feature/streambed, and did not support wildlife habitat. D-1 appeared to be a maintained artificial structure, which functions as localized stormwater runoff conveyance with no downstream connectivity and which does not provide/has no impact on beneficial uses (e.g., agricultural supply, freshwater supply, or groundwater recharge).

Wildlife Corridors

Wildlife corridors are physical features that link wildlife habitat, often consisting of native vegetation that joins two or more larger areas of similar wildlife habitat. Corridors enable migration, colonization, and genetic diversity

through interbreeding and are therefore critical for the movement of animals and the continuation of viable populations. Corridors can consist of large, linear stretches of connected habitat (such as riparian vegetation) or as a sequence of steppingstones across the landscape (discontinuous areas of habitat such as wetlands and ornamental vegetation), or corridors can be larger habitat areas with known or likely importance to local fauna.

Regional corridors are those linking two or more large patches of habitat, and local corridors are de those allowing resident animals to access critical resources (food, cover, and water) in a smaller area that might otherwise be isolated by urban development. A viable wildlife migration corridor consists of more than an unobstructed path between habitat areas. Appropriate vegetation communities must be present to provide food and cover for both transient species and resident populations of less-mobile animals. There must also be a sufficient lack of stressors and threats within and adjacent to the corridor for species to use it successfully.

The Study Area has been identified within the Western Riverside MSHCP as a part of Existing Core D. According to the MSHCP, this Core is isolated from other MSHCP cores and linkages but is intended to provide habitat and movement functions around Sycamore Canyon Park, north of the Project (RCA 2003). The Study Area likely serves as a local corridor between undeveloped areas south of Study Area and the open space areas north of the Study Area (north of Alessandro Boulevard), which includes Sycamore Canyon Park approximately 4,000 feet northwest of the Specific Plan Area. The Study Area open space buffering the Specific Plan Area is somewhat obstructed due to the residential development abutting the northern portion of the Study Area; however, this open space is proposed as part of the Conservation Easement and will be protected as a part of Project implementation. Furthermore, the Conservation Easement is located adjacent to existing conservation north of Van Buren Boulevard, which was established as a part of the Meridian South and West Campus Specific Plan Projects.

The Project includes the extension of Cactus Avenue and Brown Street to provide vehicular access to the Specific Plan Area, which would bifurcate the Conservation Easement. The alignment of Cactus Avenue deviates slightly from the alignment described in the Settlement Agreement (Appendix S); however, public access roads are not fixed within the Settlement Agreement and must be sited to minimize impacts to sensitive resources. Three soft-bottomed culverts will be installed to maintain connectivity for land locomotive species across the Conservation Easement. Specifically, two wildlife crossings under Cactus Avenue and one crossing under Brown Street will be installed as a part of the Specific Plan Area.

Mead and Hunt prepared a Wildlife Hazard Review of the Project that provided recommendations to minimize wildlife attractants throughout the Specific Plan Area, more information for which is provided in Section 4.8 of this EIR.

4.3.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Endangered Species Act

The FESA of 1973, as amended, provides for listing of endangered and threatened species of plants and animals and designation of critical habitat for listed species. The FESA regulates the “take” of any endangered fish or wildlife species, per Section 9 of the FESA. Take is defined as follows: to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. As development is proposed, the responsible agency or individual landowner is required to consult with the U.S. Fish and Wildlife Service (USFWS) to assess potential impacts to listed species (including plants) or its critical habitat, pursuant to Sections 7 and 10 of the FESA. USFWS is required to make a determination as to the extent of impact to a particular species a Project would

have. If it is determined that potential impacts to a species would likely occur, measures to avoid or reduce such impacts must be identified. USFWS may issue an incidental take statement, following consultation and the issuance of a Biological Opinion (BO). This allows for take of the species that is incidental to another authorized activity, provided that the action will not adversely affect the existence of the species. Section 10 of the FESA provides for issuance of incidental take permits to non-federal parties with the development of a habitat conservation plan; Section 7 of the FESA provides for permitting of federal projects on projects requiring federal permits.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 United States Code [USC] 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the Migratory Bird Treaty Act is extensive and is listed at 50 Code of Federal Regulations (CFR) 10.13. The Migratory Bird Treaty Act is enforced by USFWS and prohibits "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird, or attempt such actions, except as permitted by regulation.

Rivers and Harbors Act of 1899

The Rivers and Harbors Act of 1899 prohibits discharge of any material into navigable waters, or tributaries thereof, of the United States without a permit. The Act also makes it a misdemeanor to excavate, fill, or alter the course, condition, or capacity of any port, harbor, or channel; or to dam navigable streams without a permit.

Many activities originally covered by the Rivers and Harbors Act are now regulated under the Clean Water Act (CWA) of 1972, discussed below. However, the 1899 Act retains relevance and created the structure under which the USACE oversees CWA Section 404 permitting.

Clean Water Act

Pursuant to Section 404 of the CWA, the USACE is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the United States (including wetlands), which include those waters listed in 33 CFR 328.3 (as amended at 80 Federal Register 37104, June 29, 2015). The USACE, with oversight from the U.S. Environmental Protection Agency, has the principal authority to issue CWA Section 404 permits.

A water quality certification or waiver pursuant to Section 401 of the CWA is required for all Section 404 permitted actions. The RWQCB (Region 8: Santa Ana), a division of the State Water Resources Control Board, provides oversight of the 401 permit process in California. The RWQCB is required to provide "certification that there is reasonable assurance that an activity that may result in the discharge to waters of the United States will not violate water quality standards." Water Quality Certification must be based on the finding that proposed discharge will comply with applicable water quality standards.

The National Pollutant Discharge Elimination System (NPDES) is the permitting program for discharge of pollutants into surface waters of the United States under Section 402 of the CWA. Substantial impacts to wetlands may require an Individual Permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits.

State

California Endangered Species Act and Natural Community Conservation Planning Act

The CESA of 1984, in combination with the California Native Plant Protection Act of 1977, regulates the listing and take of plant and animal species designated as endangered, threatened, or rare within the state. California also lists species of special concern based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. CDFW is responsible for assessing development projects for their potential to impact listed species and their habitats. State-listed special-status species are addressed through the issuance of an incidental take permit pursuant to Fish and Game Code Section 2081.

In 1991, the California Natural Community Conservation Planning (NCCP) Act was approved and the NCCP Coastal Sage Scrub program was initiated in Southern California. California law (California Fish and Game Code Section 2800 et seq.) established the NCCP program "to provide for regional protection and perpetuation of natural wildlife diversity while allowing compatible land use and appropriate development and growth." The NCCP Act encourages preparation of plans that address habitat conservation and management on an ecosystem basis rather than one species or habitat at a time.

California Fish and Game Code Sections 1600–1602

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake that supports fish or wildlife. A Lake or Streambed Alteration Agreement Application must be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." CDFW has jurisdiction over riparian habitats associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources. CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and applicant is the Lake or Streambed Alteration Agreement.

California Fish and Game Code Sections 3503, 3511, 3513, 3800, 4700, 5050, and 5515

Within California, fish, wildlife, and native plant resources are protected and managed by CDFW. The California Fish and Game Commission and/or CDFW are responsible for issuing permits for the take or possession of protected species. The following sections of the California Fish and Game Code address protected species: Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish). In addition, the protection of birds of prey is provided for in Sections 3503, 3513, and 3800 of the California Fish and Game Code.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) provides for statewide coordination of water quality regulations. The State Water Resources Control Board was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis.

The RWQCBs are the primary agencies responsible for protecting water quality in California. As discussed above, each RWQCB regulates discharges to surface waters under the federal CWA. In addition, each RWQCB is responsible for administering the California Porter-Cologne Water Quality Control Act.

Pursuant to the Porter-Cologne Water Quality Control Act, the state is given authority to regulate waters of the state, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if Section 404 is not required for the activity. "Waste" is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

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.

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

CDFW has developed a list of "Special Species" as "a general term that refers to all of the taxa the California Natural Diversity Database 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 Species. 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 CRPR 1 and 2 by the California Native Plant Society, 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 Game or the U.S. Fish and Wildlife Service."

Regional/Local

Stephens' Kangaroo Rat Habitat Conservation Plan

The Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) was completed in 1996 by the Riverside County Habitat Conservation Agency (RCHCA), CDFW, and USFWS. The SKR HCP was created as a regional plan for species permitting and conservation so that individual projects could receive FESA take authority for the species through Riverside County, rather than individually. The SKR HCP established seven "core reserves," totaling more than 41,000 acres, within a planning area of 533,000 acres. The RCHCA is responsible for "completing" the reserves through the addition of land in fee simple or through the acquisition of easements (RCHCA 1996).

A portion of the Core Reserve (the March Air Force Base SKR Management Area) was previously identified within the March Air Reserve Base. In 2003, the USFWS agreed to a land exchange in which the portion of the Core Reserve overlapping the Base was released in exchange for land in Potrero (USFWS 2003). The Center for Biological Diversity and Audubon Society challenged the USFWS decision, and a settlement agreement was executed in 2012 (Center for Biological Diversity v. Jim Bartel, et. al. S.D. Cal. No. 09-cv-1854-JAH-POR; 'CBD Settlement Agreement'). Under the CBD Settlement Agreement, 649 acres of the former management area lands were identified as conservation lands to support Stephens' kangaroo rat. The Project's proposed 445.43-acre Conservation Easement will provide the remaining acreage required by the CBD Settlement Agreement (Appendix S).

Western Riverside County Multiple Species Habitat Conservation Plan

The Project is located within an area covered by the Western Riverside MSHCP. The Western Riverside MSHCP serves as a habitat conservation plan pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act (16 USC 1531 et seq.), as well as a Natural Communities Conservation Plan under the Natural Community Conservation Planning Act of 2001 (Fish and Game Code, Section 2800 et seq.). The Western Riverside MSHCP allows the participating jurisdictions to authorize "take" of plant and wildlife species identified within the Plan Area. The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have authority to regulate the take of threatened, endangered, and rare species. Under the Western Riverside MSHCP, the wildlife agencies have granted "take authorization" for otherwise lawful actions, such as public and private development that may incidentally take or harm individual species or their habitat outside of the WRMSHCP conservation area, in exchange for the assembly and management of a coordinated Western Riverside MSHCP conservation area. The March JPA is not a permittee under the MSHCP and therefore is not eligible for its take coverage. However, if needed, March JPA could seek "take" coverage through the MSHCP Participating Special Entity process and convey that take to the Project applicant. The activities of the Participating Special Entity must comply with the terms and requirements of the MSHCP permits, the MSHCP, and the Agreement with the participating special entity. Participating Special Entities also contribute to the MSHCP through payment of a fee based upon the type of proposed activity, which shall be applicable to all activities in the Plan Area.

March Joint Powers Authority General Plan

As part of the March Air Base re-alignment, the General Plan of the JPA was created as a guiding tool for development within the former Air Base. The General Plan is designed to implement the March Air Force Base Master Reuse Plan, which included disposal and redevelopment of approximately 4,400 acres of the approximately 6,500 acres of the former Air Base. The General Plan serves as a blueprint for future growth and development (March JPA 1999).

Resource Management Element

The Resource Management Element provides for the conservation, development, and use of natural, historical, and cultural resources. The Resource Management Element also details plans and measures for the preservation of open space designed to promote the management of natural resources, outdoor recreation, and public health and safety. This element identifies open space lands to include the golf course, installation restoration program cleanup-up sites, airfield and aviation related clear zones, riparian and open space habitat areas, and the expansion areas for the Riverside National Cemetery (March JPA 1999).

The goals and policies relevant to biological resources and the Project from the Resource Management Element are described below (March JPA 1999):

Water Resources

Policy 1.1: Where possible, retain local drainage courses, channels, and creeks in their natural condition.

Minimize Flood Hazards

Policy 2.6: Open channels shall be encouraged, as appropriate, to maintain or enhance riparian habitat areas.

Flora and Fauna Resources

Goal 5: Conserve and protect- significant stands of mature trees, native vegetation, and habitat within the planning area.

Policy 5.1: Where practical, conserve important plant communities and habitats such as riparian areas, wetlands, significant tree stands, and species by using buffers, creative site planning, revegetation, and open space easement/dedications.

Policy 5.2: Encourage the planting of native species of trees and other drought-tolerant vegetation.

Policy 5.4: In areas that may contain important plant and animal communities, require development to prepare biological assessments identifying species types and locations and develop measures to preserve recognized sensitive species, as appropriate.

Policy 5.5: Where practical, allow development to remove only the minimum natural vegetation and encourage the revegetation of graded areas with native plant species.

Policy 5.6: Work with state, federal and local agencies in the preservation and/or mitigation of recognized sensitive vegetation and wildlife in March JPA Planning Area.

Consistency with all March JPA General Plan policies is discussed in Section 4.10, Land Use and Planning.

4.3.3 Thresholds of Significance

The significance criteria used to evaluate the Project's impacts related to biological resources are based on the 2022 March JPA CEQA Guidelines. According to the March JPA CEQA Guidelines (March JPA 2022), a significant impact related to biological resources would occur if the Project would:

BIO-1: 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.

BIO-2: 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.

BIO-3: 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.

BIO-4: 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.

BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

BIO-6: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.3.4 Impacts Analysis

Threshold BIO-1. 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?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Specific Plan Area also includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The Specific Plan Area also includes installation of utility and roadway networks connecting to and throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank.

Special-Status Plant Species

Federally and/or State Listed Endangered or Threatened Species

No federally or state-listed plant species have been detected in the Study Area, and no federally or state-listed plant species have moderate to high potential to occur within the Study Area based on the lack of suitable habitat on-site. As such, **no impacts** to federally or state-listed endangered or threatened plant species would occur.

Other Special-Status Species

One CRPR 1B.1 species, smooth tarplant, has a moderate potential to occur within the Study Area, but was confirmed absent during protocol surveys. No other special-status species have a moderate or high potential to occur based on the lack of suitable habitat on-site. As such, **no impacts** to special-status plant species would occur.

Special-Status Wildlife Species

As part of the March Air Force Base closure process and the Settlement Agreement (Appendix S), 649 acres of lands are required to be placed into conservation to offset species and habitat losses associated with base redevelopment, including development of the proposed Project. The Project's proposed 445.43-acre Conservation Easement surrounding the Specific Plan Area will provide the remaining acreage required by the CBD Settlement Agreement to mitigate for any biological resource impacts. As such, loss of habitat for many species, including SSC and WL species, have been offset through conservation of habitat as part of the larger base closure efforts.

Federally and/or State Listed Endangered or Threatened Species

Five federally and/or state-listed species, Riverside fairy shrimp, vernal pool fairy shrimp, coastal California gnatcatcher, least Bell's vireo, and Stephen's kangaroo rat have a moderate or high potential to occur within the Study Area.

Riverside Fairy Shrimp and Vernal Pool Fairy Shrimp

Riverside fairy shrimp is federally listed as endangered and vernal pool fairy shrimp is federally listed as threatened. Riverside fairy shrimp and vernal pool fairy shrimp both have a low to moderate potential to occur within the Study Area based on the presence of potentially suitable habitat for these species. Protocol surveys were conducted and were negative; therefore, there are **no impacts** to Riverside fairy shrimp or vernal pool fairy shrimp.

Coastal California Gnatcatcher

Coastal California gnatcatcher is federally listed as threatened and considered an SSC by CDFW. This species has a moderate to low potential to occur within the Study Area based on the presence of suitable habitat within the Study Area for this species. Protocol surveys were conducted and were negative; therefore, there are **no impacts** to coastal California gnatcatcher.

Least Bell's Vireo

Direct Impacts: Least Bell's vireo is federally and state listed as endangered. Protocol surveys were completed in Spring and Summer 2022 and were negative within the Specific Plan Area, but were positive within the Study Area, outside of the Specific Plan Area boundary. As such, **no direct impacts** to least Bell's vireo are expected to occur. However, due to proximity to the Specific Plan Area, indirect impacts could occur.

Construction-Related Indirect Impacts: Potential short-term or temporary indirect impacts to least Bell's vireo resulting from construction activities include noise, vibration, and release of chemical pollutants could stress least Bell's vireo or cause them to leave an area of otherwise suitable habitat. These indirect impacts are potentially significant.

Indirect impacts to least Bell's vireo will be avoided, minimized, or mitigated through **Mitigation Measure (MM) BIO-1** and **MM-BIO-2**. Implementation of **MM-BIO-1**, which requires clear marking of work limits; restricting vehicle speed limits to 15 miles per hour (mph) or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly; and native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species, would avoid and minimize indirect impacts. Furthermore, **MM-BIO-2** will ensure that construction limits are flagged, workers have environmental education regarding least Bell's vireo, and construction noise is kept below 60 dBA during the breeding season. With

implementation of **MM-BIO-1** and **MM-BIO-2**, potential construction-related indirect impacts to least Bell's vireo would be **less than significant with mitigation incorporated**.

Operation-Related Indirect Impacts: Least Bell's vireo are relatively mobile and are not especially susceptible to impacts from vehicle or building collisions. However, other operation-related indirect impacts to least Bell's vireo or their suitable habitat could occur, including from chemical releases such as oils and grease from vehicles that could degrade habitat; increased human presence that could lead to unauthorized access to potential habitat for least Bell's vireo; increased invasive plant species that may degrade habitat; trampling of vegetation and soil compaction by humans, which could affect soil moisture, water penetration, surface flows, and erosion; night-time lighting; and adverse effects to habitat from fuel modification activities.

Project implementation of **MM-BIO-3** (Operation-Related Indirect Impacts to Special-Status Wildlife) would reduce potential indirect impacts to a less-than-significant level by requiring measures to ensure runoff is not altered from existing condition and toxicants are not discharged, restoration of temporary impacts, preparation of landscaping plans that will emphasize native species and not include species from the Cal-IPC California Invasive Plant Inventory, incorporation of barriers to prevent unauthorized public access to areas with potential habitat for least Bell's vireo, and stipulations that night-lighting will not be directed towards open space areas. All fuel modification activities will occur within the Specific Plan Area and road rights-of-way and is not expected to adversely affect least Bell's vireo habitat.

With implementation of **MM-BIO-3**, potential operation-related indirect impacts to least Bell's vireo would be **less than significant with mitigation incorporated**.

Stephens' Kangaroo Rat

Stephens' kangaroo rat is federally listed as endangered and state listed as threatened. As described previously, Stephens' kangaroo rat has a high potential to occur within the Study Area due to the presence of moderate-quality habitat.

Direct Impacts: Project impacts on this species were addressed as part of the March Air Force Base closure USFWS Section 7 consultation (BO 1-6-99-F-13) and CBD Settlement Agreement (Appendix S), which included a land-exchange that resulted in the conservation of higher-quality Stephens' kangaroo rat habitat at the Potrero Reserve. Pursuant to these agreements, 649 acres of lands was to be placed into conservation easement to offset potential species habitat losses due to development of Project site and other 'developable lands.' The Project's proposed 445.43-acre Conservation Easement surrounding the Specific Plan Area will provide the remaining acreage required by the CBD Settlement Agreement (Appendix S). Additionally, CDFW reviewed the USFWS BO decision and issued a consistency determination (2080-1999-056-6) stating that, "Biological Opinion No. 1- 6-99-F-13 is consistent with the California Endangered Species Act (CESA) as to anticipated take of the least Bell's vireo and Stephens' kangaroo rat" (CDFW 1999). USFWS and CDFW confirmed in 2006 that the areas taken out of the "Stephens' kangaroo rat management area" were no longer part of the Core Reserve and incidental take was authorized within these areas pursuant to the HCP (USFWS/CDFG WRIV-3259.5), and a Riverside County Habitat Conservation Agency (RCHCA) fee was paid. Thus, incidental take of Stephens' kangaroo rat within the Specific Plan Area is permitted, potential direct impacts to Stephens' kangaroo rat is **less than significant**, and no mitigation is required.

Construction-Related Indirect Impacts: Potential short-term or temporary indirect impacts to Stephens' kangaroo rat resulting from construction activities include night lighting, fugitive dust, and habitat degradation are potentially significant. Indirect impacts to Stephens' kangaroo rat would be avoided, minimized, and mitigated through implementation of **MM-BIO-4**, which requires the following measures that will address indirect impacts to Stephens'

kangaroo rat: (1) installation of exclosure fencing, (2) the development and implementation of a Worker Environmental Awareness Program, (3) the containment of food and trash and the removal of spoils and trash from the site; (4) the limitation of construction activities to daylight hours, and (5) the installation of shielded lighting. In addition, implementation of **MM-BIO-1**, which requires clear marking of work limits; restricting vehicle speed limits to 15 miles per hour (mph) or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly; and native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species, would avoid and minimize indirect impacts. With implementation of **MM-BIO-1** and **MM-BIO-4**, construction-related indirect impacts to Stephen's kangaroo rat would be **less than significant with mitigation incorporated**.

Operation-Related Indirect Impacts: Potential operations-related indirect impacts that could result from development near Stephens' kangaroo rat or their suitable habitat include chemical releases such as oils and grease from vehicles that could degrade habitat; increased human presence that could lead to unauthorized access to potential habitat for Stephens' kangaroo rat; increased invasive plant species that may degrade habitat; trampling of vegetation and soil compaction by humans, which could affect soil moisture, water penetration, surface flows, and erosion; night-time lighting; and adverse effects to habitat from fuel modification activities.

Project implementation of **MM-BIO-3** (Operation-Related Indirect Impacts to Special-Status Wildlife) would reduce potential indirect impacts to a less-than-significant level by requiring measures to ensure runoff is not altered from existing condition and toxicants are not discharged, restoration of temporary impacts, preparation of landscaping plans that will emphasize native species and not include species from the Cal-IPC California Invasive Plant Inventory, incorporation of barriers to prevent unauthorized public access to areas with potential habitat for Stephens' kangaroo rat, and requirements that night-lighting will not be directed towards open space areas. All fuel modification activities will occur within the Specific Plan Area and road rights-of-way and is not expected to adversely affect potential Stephens' kangaroo rat habitat.

With implementation of **MM-BIO-3**, operation-related indirect impacts to Stephen's kangaroo rat would be **less than significant with mitigation incorporated**.

Non-Listed Special-Status Wildlife Species

Burrowing Owl

Direct Impacts: Burrowing owl is a Species of Special Concern and has a high potential to occur in the Study Area and therefore is assumed present. As such, Project implementation could result in direct impacts on burrowing owl in the form of habitat destruction, and potential death, injury, or harassment of nesting birds, their eggs, and their young. Injury or mortality occurs most frequently during the vegetation clearing stage of construction and affects eggs, nestlings, and recently fledged young that cannot safely avoid equipment. Direct impacts to burrowing owl are potentially significant.

Direct impacts to burrowing owl would be avoided and minimized through implementation of mitigation measure **MM-BIO-5A,** which requires pre-construction surveys, establishment of exclusion buffers around occupied burrows or burrow complexes (buffer width is dependent upon breeding versus non-breeding season), and burrowing owl specific monitoring throughout construction to ensure full avoidance of owls.

Should it be determined that full avoidance of occupied burrowing owl burrows or burrow complexes is not possible, **MM-BIO-5B** requires preparation of a Burrowing Owl Relocation and Mitigation Plan that would include methods for

passive relocation; description of surrounding suitable habitat conditions; monitoring and management requirements for replacement burrow sites in coordination with CDFW; reporting requirements; and compensatory mitigation, if required by CDFW.

With implementation of **MM-BIO-5A** and **MM-BIO-5B**, direct impacts to burrowing owl would be **less than significant with mitigation incorporated**.

Construction-Related Indirect Impacts: Potential short-term or temporary indirect impacts to burrowing owl resulting from construction activities include vibration, excess noise, chemical pollution, fugitive dust, and increased human presence. These potential construction-related indirect impacts to burrowing owl would be potentially significant absent mitigation.

Implementation of **MM-BIO-1**, which requires clear marking of work limits; restricting vehicle speed limits to 15 miles per hour (mph) or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly; and native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species, would avoid and minimize indirect impacts. With implementation of **MM-BIO-1**, **MM-BIO-5A**, and **MM-BIO-5B**, construction-related indirect impacts to burrowing owl would be **less than significant with mitigation incorporated**.

Operation-Related Indirect Impacts: Potential long-term indirect impacts that could result from development near burrowing owl or their habitat include chemical releases such as oils and grease from vehicles that could degrade habitat, increased human presence that could lead to unauthorized access to potential habitat for burrowing owl, increased invasive plant species that may degrade habitat, and adverse effects to habitat from fuel modification activities. These potential operation-related indirect impacts to burrowing owl would be potentially significant absent mitigation.

Project implementation of **MM-BIO-3** (Operation-Related Indirect Impacts to Special-Status Wildlife) would reduce potential indirect impacts to a less-than-significant level by requiring measures to ensure runoff is not altered from existing condition and toxicants are not discharged, restoration of temporary impacts, preparation of landscaping plans that will emphasize native species and not include species from the Cal-IPC California Invasive Plant Inventory, and incorporation of barriers to prevent unauthorized public access to areas with potential habitat for burrowing owl. All fuel modification activities will occur within the Specific Plan Area and road rights-of-way and is not expected to adversely affect potential burrowing owl habitat.

Implementation of **MM-BIO-3** would minimize the effect of operation-related indirect impacts to burrowing owl to **less than significant with mitigation incorporated**.

San Diego Black-Tailed Jackrabbit

San Diego black-tailed jackrabbit is a CDFW Species of Special Concern and has been observed in the Study Area. As part of the March Air Force Base closure process, 664 acres of lands were placed into conservation easement to offset species and habitat losses associated with base redevelopment, including development of this proposed Project. As such, loss of habitat for this species has been offset through conservation of this habitat as part of the larger base closure efforts.

Direct Impacts: Potential direct mortality impacts would be considered significant and therefore require mitigation to reduce these impacts to less than significant. Direct impacts to occupied San Diego black-tailed jackrabbit habitat would be reduced by implementation of **MM-BIO-6**, which requires a pre-construction survey be conducted 30 days prior to ground-disturbing activities, the demarcation and avoidance of active maternity dens during the

pup-rearing season (February 15 through July 1), and monitoring by a biological monitor during all construction activities. A qualified biologist will relocate unattended young to suitable habitat and document all identified, avoided, and relocated San Diego black-tailed jackrabbit in a written report to CDFW within 72 hours. Implementation of **MM-BIO-6** would minimize the effect of direct impacts to San Diego black-tailed jackrabbit to **less than significant with mitigation incorporated**.

Construction-Related Indirect Impacts: Potential short-term or temporary indirect impacts to San Diego black-tailed jackrabbit resulting from construction activities include noise, vibration, and release of chemical pollutants could stress San Diego black-tailed jackrabbits or cause them to leave an area of otherwise suitable habitat. Implementation of **MM-BIO-1** which requires daily biological monitoring during vegetation clearing and ground disturbance that results in breaking the ground surface; clearly marking work limits, restricting vehicle speed limits to 15 mph or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly; and native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species—would further reduce potential indirect impacts to San Diego black-tailed jackrabbit. Implementation of **MM-BIO-1** and **MM-BIO-6** would reduce construction-related indirect impacts to San Diego black-tailed jackrabbit. Therefore, impacts to black-tailed jackrabbit would be **less than significant with mitigation incorporated**.

Operation-Related Indirect Impacts: Potential long-term indirect impacts that could result from development near San Diego black-tailed jackrabbit or their habitat include chemical releases such as oils and grease from vehicles that could degrade habitat, increased human presence that could lead to unauthorized access to potential habitat for San Diego black-tailed jackrabbit, increased invasive plant species that may degrade habitat, and adverse effects to habitat from fuel modification activities. These potential operation-related indirect impacts to San Diego black-tailed jackrabbit would be potentially significant absent mitigation.

Project implementation of **MM-BIO-3** (Operation-Related Indirect Impacts to Special-Status Wildlife) would reduce potential indirect impacts to a less-than-significant level by requiring measures to ensure runoff is not altered from existing condition and toxicants are not discharged, restoration of temporary impacts, preparation of landscaping plans that will emphasize native species and not include species from the Cal-IPC California Invasive Plant Inventory, and incorporation of barriers to prevent unauthorized public access to areas with potential habitat for San Diego black-tailed jackrabbit. All fuel modification activities will occur within the Specific Plan Area and road rights-of-way and is not expected to adversely affect potential San Diego black-tailed jackrabbit habitat.

Implementation of **MM-BIO-3** would minimize the effect of operation-related indirect impacts to San Diego black-tailed jackrabbit to **less than significant with mitigation incorporated**.

Other Species of Special Concern and Watch List Species

Coastal whiptail (SSC), Cooper's hawk (CDFW Watch List), western spadefoot (SSC), and yellow warbler (SSC) were all observed within the Study Area during 2021 biological surveys. Additionally, California horned lark (SSC), has a high potential to occur, and both western yellow bat (SSC) and orange-throated whiptail (SSC) have a moderate potential to occur within the Study Area. Loss of habitat for SSC and WL species have been offset through conservation of habitat as a part of the March Air Force Base closure process.

Potential direct mortality of coastal whiptail, orange-throated whiptail, and western yellow bat could occur during construction activities and would be considered a significant impact requiring mitigation to reduce impacts on the species to a level below significant. Impacts to these species would be reduced to less than significant by implementation of **MM-BIO-1**, which requires a biologist flush sensitive species from suitable habitat immediately prior to initial ground disturbing activities, and daily biological monitoring during the initial vegetation removal and

during any ground disturbing activities that result in breaking of the ground surface. In addition, the measure calls for regular random checks at least once a week, after the initial ground disturbance phase, and sets forth best management practices (BMPs) to reduce impacts to these special status species. With the implementation of the mitigation measures described in **MM-BIO-1**, impacts to coastal whiptail, orange-throated whiptail, and western yellow bat would be **less than significant with mitigation incorporated**. Western spadefoot is not expected to occur within the Specific Plan Area and therefore direct impacts are not expected to occur.

In addition, adult avian species are likely to flush during initial Project activities, however, chicks and juvenile birds are unable to move from the area, resulting in direct impacts to nesting bird species of special concern (i.e., Cooper's hawk, yellow warbler, and California horned lark). Implementation of nesting bird protections detailed in **MM-BIO-7,** would reduce any potential impacts on nesting birds to less than significant. This measure calls for construction to take place outside of breeding season (February 1 to September 15). If construction does occur during breeding season, **MM-BIO-7** calls for pre-construction nesting bird surveys and the flagging and avoidance of any active nests. In addition, implementation of **MM-BIO-1** which requires daily biological monitoring during vegetation clearing and ground disturbance that results in breaking the ground surface; clearly marking work limits, restricting vehicle speed limits to 15 mph or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly; and native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species—would further reduce potential indirect impacts to Cooper's hawk, yellow warbler, and California horned lark. With implementation of **MM-BIO-1** and **MM-BIO-7**, impacts to Cooper's hawk, yellow warbler, and California horned lark would be **less than significant with mitigation incorporated**.

Nesting Birds

The Study Area has the potential to support avian nests, which would be protected under the Migratory Bird Treaty Act and/or the California Fish and Game Code (Section 3503), under which it is unlawful to "take, possess, or needlessly destroy" avian nests or eggs. Thus, potentially significant impacts could occur if vegetation clearing is undertaken during the breeding season (February 1 through September 15). Removal of habitat should occur outside of the breeding season. If vegetation removal cannot occur outside of the breeding season, **MM-BIO-7** would be implemented which requires a pre-construction nesting bird survey, thus addressing direct impacts to nesting birds. In addition, implementation of **MM-BIO-1**—which requires daily biological monitoring during vegetation clearing and ground disturbance that results in breaking the ground surface; clearly marking work limits, restricting vehicle speed limits to 15 mph or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly; and native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species—would further reduce potential indirect impacts to nesting birds. With implementation of **MM-BIO-1** and **MM-BIO-7**, impacts to nesting birds would be **less than significant with mitigation incorporated**.

Conservation Easement

No physical development is proposed within the Conservation Easement. Therefore, **no impacts** to special-status plants or wildlife are expected to occur.

Threshold BIO-2. 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?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

The proposed Project would occur primarily within non-native grasslands; however, the Specific Plan Area contains three riparian communities that would be permanently impacted: mulefat scrub, southern riparian forest, and southern willow scrub. All upland communities that would be impacted by the Project are not considered sensitive globally or in the state of California (Table 4.3-7 and Figure 4.3-4). While the March JPA is not a participant of the Western Riverside MSHCP, performing upland native habitat mitigation consistent with this regional conservation plan helps minimize and avoid significant cumulative biological impacts. As such, implementation of **MM-BIO-8**, which calls for impacts on Encelia scrub, flat-topped buckwheat, and Riversidean sage scrub to be mitigated at a 1:1 ratio, and Project impacts on disturbed Riversidean sage scrub to be mitigated at a 0.5:1 ratio through the purchase of credits at an approved mitigation bank as listed in **MM-BIO-8**. This mitigation ratio is appropriate because these vegetation communities are not considered sensitive under CEQA and do not support special-status species within the Specific Plan Area. The proposed Project will impact 0.01 acres of mulefat scrub, 1.16 acres of southern riparian forest, and 0.20 acres of southern willow scrub. These communities are considered sensitive under CEQA and impacts would be potentially significant. As further described under Threshold BIO-3, direct and/or indirect impacts to riparian habitat would be reduced through implementation of **MM-BIO-9**, which calls for conformance with CWA Sections 404 and 401, along with a Streambed Alteration permit prior to any construction activity. Additionally, **MM-BIO-9** requires the purchase of re-establishment credits at not less than 1:1. Furthermore, indirect impacts will be avoided through implementation of the BMPs outlined in **MM-BIO-9**, which prohibits the placement of equipment and spoil sites within or adjacent to aquatic resources, and that pollutants are contained so that they cannot contaminate soil or waterways. Therefore, with implementation of **MM-BIO-8** and **MM-BIO-9**, impacts to riparian habitat or other sensitive natural communities would be **less than significant with mitigation incorporated**.

Table 4.3-7. Vegetation Communities and Land Uses Project Impacts Within the Study Area

Vegetation Community[a]	Vegetation Community[b]	Global, State Rank[c]	Acres
Upland Vegetation Communities			
Encelia Scrub	*Encelia farinosa* Shrubland Alliance	G5/S4	1.53
Flat-Topped Buckwheat	*Eriogonum fasciculatum* Shrubland Alliance	G5/S5	4.56
Non-native Grassland	*Bromus rubens* – Schismus (*arabicus, barbatus*) Herbaceous Semi-Natural Alliance	None	341.66
Non-native Grassland – Mustard Dominated	*Brassica nigra* – Centaurea (*solstitialis, melitensis*) Herbaceous Semi-Natural Alliance	None	0.50
Ornamental	Developed/Disturbed	None	0.12
Riversidean Sage Scrub	*Eriogonum fasciculatum* Shrubland Alliance	G5/S5	5.54
Riversidean Sage Scrub – Disturbed	*Eriogonum fasciculatum* Shrubland Alliance – Disturbed	G5/S5	4.05
		Subtotal	*357.96*
Riparian Vegetation Communities			
Mule Fat Scrub	*Baccharis salicifolia* Shrubland Alliance	G4S4	0.01
Southern Riparian Forest	*Salix goodingii* – Salix laevigata Forest and Woodland Alliance	G4/S3	1.16

Table 4.3-7. Vegetation Communities and Land Uses Project Impacts Within the Study Area

Vegetation Community[a]	Vegetation Community[b]	Global, State Rank[c]	Acres
Southern Willow Scrub	*Salix lasiolepis* Shrubland Alliance	G4/S4	0.20
		Subtotal	*1.37*
Land Covers			
Developed	Developed/Disturbed	None	12.43
Disturbed	Developed/Disturbed	None	7.45
		Subtotal	*19.88*
		Total	**379.21**

Notes: Numbers may not sum due to rounding.
[a] Holland 1986.
[b] Vegetation communities crosswalked to The Manual of California Vegetation Sawyer et al. 2009.
[c] NatureServe Global and state rarity ranks per Faber-Langendoen et al. (2012). Natural communities with global or state ranks of 1–3 are considered Sensitive Natural Communities by the California Department of Fish and Wildlife (CDFW) and are to be addressed in the environmental review processes of CEQA (CDFW).

Conservation Easement

No physical development is proposed within the Conservation Easement. Therefore, **no impacts** to riparian habitat or other sensitive natural communities are expected to occur.

Threshold BIO-3. 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?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Based upon the results of the Upper Plateau Aquatic Resources Delineation Report (RBC 2021; Appendix D), development of the Specific Plan Area would permanently impact 0.28 acres (5,303 linear feet) of non-wetland waters of the U.S. jurisdictional by the USACE; 0.28 acres (5,303 linear feet) of non-wetland waters of the State jurisdictional by the Santa Ana RWQCB; and 0.59 acres (5,303 linear feet) of vegetated streambed and 1.09 acres of riparian habitat jurisdictional by the CDFW (Figure 4.3-4).

Direct impacts to these resources could result from ground-disturbing activities (e.g., clearing, grubbing, grading), and would be considered significant without mitigation. Indirect short-term impacts to jurisdictional waters include changes to hydrology, erosion, chemical pollution, and fugitive dust, and substantial long-term impacts include hydrology alterations and chemical pollution. Indirect impacts to jurisdictional waters would be significant without mitigation.

Direct and indirect impacts to aquatic resources would be reduced by implementation of **MM-BIO-9**, which calls for mitigation through the purchase of re-establishment credits at not less than a 1:1 ratio from a mitigation bank (e.g., Riverpark Mitigation Bank) or as otherwise determined through consultation with the USACE, RWQCB, and CDFW. Note that these agencies may also require additional credits, for example, rehabilitation credits or a higher mitigation ratio. According to the USACE, approved compensatory mitigation emphasizes a watershed approach and requires enforceable ecological performance standards and long-term protection (73 CR 19594-19702). The impacted aquatic resources within the Specific Plan Area have lower ecological value than enhanced or reestablished aquatic resource habitat that, when provided as mitigation, will contribute to a larger, landscape-level

aquatic feature that can facilitate higher-quality beneficial uses than the impacted features within the Specific Plan Area. Because of the regulations stipulated for compensatory migration by the USACE, the purchase of mitigation lands is expected to offset Project impacts because the mitigation lands will contain higher-quality aquatic resources than those present within the Specific Plan Area. Additionally, **MM-BIO-9** requires that applicable resource agency permits are received prior to ground-disturbing activities and that mitigation for impacts to those resources is secured prior to ground-disturbing activities. Indirect impacts to aquatic resources would be reduced by implementation of **MM-BIO-9**, which requires that applicable resource agency permits are received prior to ground-disturbing activities and that mitigation for impacts to those resources is secured prior to ground-disturbing activities. The BMPs outlined in **MM-BIO-9** require that equipment and spoil sites are not placed within or adjacent to aquatic resources, and that pollutants are contained so that they cannot contaminate soil or waterways. These measures would further reduce potential indirect impacts to aquatic resources. Furthermore, **MM-BIO-1** will ensure that work limits are clearly marked, trash and debris are disposed of properly, removed vegetation will be kept out of waterways to limit the spread of non-native species, and construction materials and equipment will be kept away from aquatic resources.

Implementation of **MM-BIO-1** and **MM-BIO-9** would reduce direct and indirect impacts to these waters within the Specific Plan Area to **less than significant with mitigation incorporated**.

Conservation Easement

No physical development is proposed within the Conservation Easement. Therefore, ***no impacts*** to state or federally protected wetlands are expected to occur.

Threshold BIO-4. ***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?***

This threshold is not separated by Specific Plan Area and Conservation Easement because to analyze this question these Project components need to be evaluated together.

The Study Area likely serves as a local wildlife corridor between undeveloped areas to the south of the Study Area and the open space areas immediately north of the Study Area (i.e., north of Alessandro Boulevard), which includes Sycamore Canyon approximately 4,000 feet to the northwest of the Specific Plan Area (Google Earth 2021). The Study Area is not expected to function as a nursery site because it does not contain tall trees that could support nurseries.

With full buildout of the Specific Plan Area, an undeveloped corridor, part of the Conservation Easement, would be retained immediately east of the Specific Plan Area. The Conservation Easement would provide a buffer of at least 300 feet on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. This undeveloped land would maintain a corridor between the Specific Plan and nearby residential development, including significant areas of riparian habitat (Figure 4.3-4). To further buffer the Conservation Easement, the Specific Plan proposes three open space areas, including an additional 30-foot-wide landscaped buffer on the proposed parcels to the north, west, south, and southeast of the Specific Plan Area.

Finally, the Specific Plan Area includes the installation of three wildlife crossings: two under Cactus Avenue in the eastern portion of the Study Area, which will provide additional opportunities for wildlife to safely move north to south through the eastern Conservation Easement corridor; and one beneath Brown Street that will facilitate wildlife movement east and west through the Conservation Easement corridor. The two Cactus Avenue crossings will be

soft-bottomed culverts approximately 8 feet in height, 20 feet in width, and 240 feet in length The Brown Street crossing will consist of a soft-bottomed culvert approximately 8 feet in height, 20 feet in width, and 150 feet long. These specifications follow the CBD Settlement Agreement, which prescribed design standards suitable to accommodate local, land-locomotive species (Appendix S).

In summary, the Conservation Easement, along with the three wildlife crossings, will maintain an undeveloped corridor surrounding the Specific Plan Area, such that the Project's impacts on wildlife corridors would be **less than significant.**

Threshold BIO-5. Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

March JPA General Plan Resource Management Element

The March JPA General Plan Resource Management Element provides for the conservation, development, and use of natural resources. The Resource Management Element also details plans and measures for the preservation of open space designed to promote the management of natural resources, as follows (March JPA 1999):

> **Policy 1.1:** Where possible, retain local drainage courses, channels and creeks in their natural condition.

The proposed Project would impact aquatic resources. As discussed above in Threshold BIO-3, implementation of **MM-BIO-9** would reduce impacts to **less than significant with mitigation incorporated**.

> **Policy 2.6:** Open channels shall be encouraged, as appropriate, to maintain or enhance riparian habitat areas.

The proposed Project would impact aquatic resources. As discussed above in Threshold BIO-3, implementation of **MM-BIO-9** would reduce impacts to **less than significant with mitigation incorporated**.

> **Policy 5.1:** Where practical, conserve important plant communities and habitats such as riparian areas, wetlands, significant tree stands, and species by using buffers, creative site planning, revegetation and open space easement/dedications.

The proposed Project would impact aquatic resources and their associated riparian habitats (1.16 acres of southern riparian forest, 0.20 acres of southern willow scrub, and 0.01 acres of mule fat scrub) as discussed in Threshold **BIO-2**, above; however, implementation of **MM-BIO-9** would reduce impacts on aquatic resources and riparian habitat to **less than significant with mitigation incorporated.**

> **Policy 5.4:** In areas that may contain important plant and animal communities, require development to prepare biological assessments identifying species types and locations and develop measures to preserve recognized sensitive species, as appropriate.

A Biological Technical Report was prepared for the proposed Project in conformance with Policy 5.4 of the plan and includes **MM-BIO-1** through **MM-BIO-9** to mitigate the proposed Project's potential impacts on sensitive species (Appendix D) to **less than significant with mitigation incorporated**.

Policy 5.5: Where practical, allow development to remove only the minimum natural vegetation and encourage the revegetation of graded areas with native plant species.

The proposed Project would impact natural upland communities (1.53 acres of Encelia scrub and 4.56 acres of flat-topped buckwheat) as well as natural riparian communities discussed (1.16 acres of southern riparian forest, 0.20 acres of southern willow scrub, and 0.01 acres of mule fat scrub) as discussed in Threshold BIO-2 above. Implementation of **MM-BIO-1** and **MM-BIO-9**, along with the use of drought tolerant species within the landscaped areas of the Specific Plan Area would reduce impacts to these resources to **less than significant with mitigation incorporated**.

Policy 5.6 Work with state, federal and local agencies in the preservation and/or mitigation of recognized sensitive vegetation and wildlife in March JPA Planning Area.

The proposed Project will obtain all necessary state, federal, and local regulatory permits and approvals prior to project implementation.

As such, the Project would be consistent with the March JPA General Plan Resource Management Element and **less than significant** with no additional mitigation required specific to this threshold.

Conservation Easement

No physical development is proposed within the Conservation Easement. Therefore, **no impacts** with respect to conflicts with local policies or ordinances protecting biological resources would occur with the establishment of the Conservation Easement.

Threshold BIO-6. 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?

This threshold is not separated by Specific Plan Area and Conservation Easement because to analyze this question, these Project components need to be evaluated together.

Western Riverside Multiple Species Habitat Conservation Plan

The Project is located within the Western Riverside MSHCP area (RCA 2003). The March JPA is not a permittee of the MSHCP; therefore, projects under its authority are not subject to the MSHCP, nor are said projects granted any take authorization unless the March JPA chooses to apply for take under the Participating Special Entity Process. For this Project, take authorization from the MSHCP is not required and therefore March JPA will not apply for take under the Participating Special Entity Process. Nevertheless, the Regional Conservation Authority MSHCP Information Map (RCA 2021) was reviewed for requirements that could result in a potential conflict between the proposed Project and the MSHCP. The Project is not located within a Criteria Cell. The Specific Plan Area is within an area where burrowing owl surveys are required, but not in an area where surveys for narrow endemic plants, criteria area plants, small mammals, and/or amphibians are required (RCA 2021). For plant and wildlife species that are covered under the MSHCP, impacts are fully mitigated for covered activities within Riverside County by payment of the MSHCP fee and through consistency with MSHCP Section 6 policies and requirements. Although the March JPA is not a Permittee in the MSHCP or required to be consistent with the MSHCP, implementation of mitigation as part of the proposed Project is beneficial to the MSHCP. Specifically, **MM-BIO-5A** and **MM-BIO-5B** as proposed are consistent with the MSHCP requirements for burrowing owl. In addition, **MM-BIO-2** and **MM-BIO-9** are consistent with the MSHCP requirements for Section 6.1.2 Riparian/Riverine and Vernal Pool Resources.

In addition, according to the MSHCP, the Project is located within Existing Core D, which includes the Conservation Easement proposed for conservation as a part of the CBD Settlement Agreement (Appendix S). The MSHCP has these lands designated as Public/Quasi-Public lands, meaning that they will contribute to MSHCP Conservation Lands. The Project will not impact the Public/Quasi-Public lands and will implement **MM-BIO-1** to reduce indirect impacts to the Conservation Easement land. Furthermore, all fuel modification activities will occur within the Specific Plan Area and road rights-of-way and outside of Public/Quasi-Public lands. As such, impacts would be **less than significant with mitigation incorporated**.

Stephens' Kangaroo Rat Habitat Conservation Plan

The Project is also located within Stephens' Kangaroo Rat HCP area (RCHCA 1996). Project impacts to this species were addressed as part of the March Air Force Base closure USFWS Section 7 consultation (BO 1-6-99-F-13) and CBD Settlement Agreement (Appendix S). Pursuant to these agreements, 649 acres of lands was to be placed into conservation to offset potential species habitat losses due to development of Project site and other 'developable lands.' The Project's proposed 445.43-acre Conservation Easement surrounding the Specific Plan Area will provide the remaining acreage required by the CBD Settlement Agreement (Appendix S) to mitigate for any biological resource impacts. Additionally, CDFW reviewed the USFWS BO decision and issued a consistency determination (2080-1999-056-6) stating that, "Biological Opinion No. 1- 6-99-F-13 is consistent with the California Endangered Species Act (CESA) as to anticipated take of the least Bell's vireo and Stephens' kangaroo rat" (CDFW 1999). USFWS and CDFW confirmed in 2006 that the areas taken out of the "Stephens' kangaroo rat management area" were no longer part of the Core Reserve and incidental take was authorized within these areas pursuant to the HCP (USFWS/CDFG WRIV-3259.5), and a Riverside County Habitat Conservation Agency (RCHCA) fee was paid. Thus, incidental take of Stephens' kangaroo rat within the Specific Plan Area is permitted and the Project is not in conflict with the Stephens' Kangaroo Rat HCP.

Because there would be no conflicts with the Stephens' Kangaroo Rat HCP nor the Western Riverside MSHCP, there would be **no impacts**, and no mitigation specific to this threshold is required.

4.3.5 Mitigation Measures

The following mitigation measures would be implemented to reduce potentially significant impacts to biological resources from implementation of the Project.

MM-BIO-1 **Best Management Practices.** To avoid impacts to special-status resources and inadvertent disturbance to areas outside the limits of the proposed Project activities, the following monitoring requirements and BMPs shall be implemented:

1. A biologist shall be contracted to perform daily monitoring during initial vegetation removal and throughout ground-disturbing activities that result in the breaking of the ground surface. After initial vegetation removal and ground disturbance that results in breaking of the ground surface, a biologist shall be contracted to perform regular random checks (not less than once per week but could be increased depending on the presence of special-status species) to ensure that all mitigation and BMPs are implemented. In addition, monitoring reports and a post-construction monitoring report shall be prepared to document compliance with these mitigation measures and BMPs.

2. To prevent inadvertent disturbance to areas outside the limits of work, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary visibility construction fence) prior to ground-disturbance activities, and all construction activities, including equipment staging and maintenance, shall be conducted within the marked disturbance limits. The work limit delineation shall be maintained throughout Project construction. Should construction fencing be installed to delineate the limits of work, adequate openings along the southern and eastern perimeters shall be established to allow for dispersal of wildlife into the adjacent undeveloped lands. The contractor shall consult with the biological monitor to confirm that construction fencing will prevent unauthorized access beyond the limits of work while allowing wildlife to escape from active construction areas.
3. A qualified biologist shall carefully evaluate for and potentially flush special-status mammal or reptile species from suitable habitat areas within the Specific Plan Area to the maximum extent practicable immediately (e.g., within 24 hours) prior to initial vegetation removal activities. The biologist shall flush wildlife by walking through habitat to be immediately removed.
4. Construction vehicles shall not exceed 15 miles per hour on unpaved roads adjacent to the Specific Plan Area or the right-of-way accessing the site.
5. Construction activities will occur during daytime hours.
6. If trash and debris need to be stored overnight during maintenance activities, fully covered trash receptacles that are animal-proof and weather-proof will be used by the maintenance contractor to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Alternatively, standard trash receptacles may be used during the day, but must be removed each night.
7. Cut vegetation shall be hauled out of any waterways and stored, if necessary, where it cannot be washed by rainfall or runoff into waterways. When construction activities are completed, any excess materials or debris shall be removed from the Specific Plan Area.
8. Temporary structures and storage of construction materials will not be located in jurisdictional waters, including wetlands or riparian areas.
9. Staging/storage areas for construction equipment and materials will not be located in jurisdictional waters, including wetland or riparian areas or within the buffer areas as determined by the resource agencies during the waters permitting process.
10. The operator will not permit pets on or adjacent to construction sites.
11. As per the Landscaping Guidelines of the Resource Management Element of the March Joint Powers Authority (JPA) General Plan (1999), drought-tolerant vegetation and native vegetation will be used to the extent feasible, consistent with March JPA Landscape Water Efficiency Ordinance #JPA 16-03, with the purpose of preserving existing mature trees and native vegetation. A qualified botanist shall review landscape plans to recommend appropriate provisions to minimize the spread of invasive plant species, as defined by the California Invasive Plant Council (www.cal-ipc.org), California Native Plant Society (www.cnps.org), and the Western Riverside MSHCP within the Specific Plan Area. Provisions may include a) installation of container plants and/or hydro-seeding areas adjacent to existing, undisturbed native vegetation areas with native plant species that are common within temporary impact areas; and b) review and screening of proposed plants to identify and avoid potential invasive species and weed removal during the initial planting of landscaped areas.

MM-BIO-2 **Least Bell's Vireo.** The Project does not include direct impacts to least Bell's vireo habitat, but has potential to indirectly impact least Bell's vireo habitat outside of the Specific Plan Area boundary.

The following avoidance and minimization measures shall be implemented to avoid indirect impacts to least Bell's vireo:

1. Environmental awareness training for all construction personnel to educate personnel about least Bell's vireo and protective status avoidance measures to be implemented by all personnel, including the avoidance of nesting bird season to the greatest extent feasible and minimization of vegetation impacts within suitable riparian habitat;
2. Demarcation of the extent of construction limits with temporary construction fencing to be maintained until construction is complete;
3. Construction noise levels shall not exceed a 60 dBA L_{eq} hourly average within the occupied least Bell's vireo habitat located adjacent to the Specific Plan Area during least Bell's vireo nesting season (March 15 to September 15), unless authorized by the appropriate regulatory authorities (i.e., CDFW and USFWS). The 60 dBA L_{eq} hourly average limit has been established by USFWS. Noise testing will be conducted within suitable riparian habitat contiguous with occupied least Bell's vireo territories at the vegetation limit closest to the Project site. Please note that noise limits are only applicable to the occupied habitat and suitable contiguous riparian vegetation; noise limits do not apply to a buffer around the habitat. At the onset of least Bell's vireo breeding season, a qualified biologist shall conduct non-protocol surveys to confirm the locations of vireo territories. Noise monitoring will be conducted by a biologist familiar with least Bell's vireo behavior. While conducting noise monitoring, the biologist will observe vireo to ensure normal breeding behaviors are not indirectly impacted by construction activities. The biologist shall be authorized to stop work if any adverse impacts on least Bell's vireo are detected. A noise level verification report shall be submitted to March JPA every 2 weeks during the duration of site grading and construction phases. If construction activities are found to result in average hourly noise levels greater than 60 dBA L_{eq}, noise attenuation measures shall be implemented to reduce noise within least Bell's vireo breeding habitat to below the 60 dBA L_{eq} limit. In such a case, construction activities may not resume until a reduction in noise within occupied least Bell's vireo habitat is documented.

MM-BIO-3 **Operation-Related Indirect Impacts to Special-Status Wildlife**

Prior to issuance of a building permit within 500 feet of suitable habitat for special-status species with potential to occur, construction plans and conditions of approval shall include the following to address indirect impacts to special-status species:

- **Runoff:** Development within 500 feet of suitable habitat for special-status species shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System requirements, to ensure that the quantity and quality of runoff discharged is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into proposed open space or suitable habitat for special-status species. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological

resources or ecosystem processes. This can be accomplished using a variety of methods including natural detention basins, grass swales, or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

- **Toxicants:** Land uses that use chemicals or generate bioproducts such as manure, fertilizer, or vineyard waste that are potentially toxic or may adversely affect plant species, wildlife species, habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharges. Measures such as those employed to address drainage issues shall be implemented.
- **Lighting:** Permanent night lighting shall be directed away from proposed open space and/or suitable habitat for special-status species to protect species from direct night lighting. Shielding shall be incorporated in Specific Plan designs to ensure ambient lighting is not increased. Any trails that intersect proposed open space will not include night lighting.
- **Noise***:* Proposed noise-generating land uses affecting suitable habitat for special-status species shall incorporate setbacks, berms, or walls to minimize the effects of noise on resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards. For planning purposes, wildlife should not be subject to noise that would exceed residential noise standards.
- **Invasive Species:** When approving landscape plans for future development, emphasis will be placed on using native species that occur in the region. Invasive, non-native plant species listed on the most recent California Invasive Plant Council inventory (https://www.cal-ipc.org/plants/inventory/) with a rating of moderate or high shall not be included in landscaping.
- **Barriers**: Future development shall incorporate barriers, where appropriate in individual project designs, to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in proposed open space and/or suitable habitat for special-status wildlife. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms. Any proposed trails through open space will have gates that close at nighttime, as well as signage and appropriate barriers to keep people and domestic animals on the trail.
- **Restoration of Temporary Impacts:** Prior to issuance of a grading or building permit within the Specific Plan, grading and construction plans shall include the following note regarding any temporary impacts to uplands:
    - Site construction areas subjected to temporary ground disturbance in undeveloped areas shall be subjected to revegetation with an application of a native seed mix, if necessary, prior to or during seasonal rains to promote passive restoration of the area to pre-Project conditions (except that no invasive plant species will be restored). An area subjected to "temporary" disturbance means any area that is disturbed but will not be subjected to further disturbance as part of the Project. If any grading occurred in areas intended to remain undeveloped, the site will be recontoured to natural grade. This measure does not apply to situations in urban/developed areas that are temporarily impacted and will be returned to an urban/developed land use. Prior to seeding temporary ground disturbance areas, the Specific Plan biologist will review the seeding palette to ensure that no seeding of invasive plant species, as identified in the most recent version of the California Invasive Plant Inventory for the region, will occur.

MM-BIO-4 **Stephens' Kangaroo Rat Avoidance and Mitigation.** Stephens' kangaroo rat has a high potential to occur within the Specific Plan Area and is assumed present. The Specific Plan Area does not occur within the Stephen's Kangaroo Rat 'core reserves' and incidental take of Stephens' kangaroo rat is permitted within the Specific Plan Area. The following measures to reduce the potential for direct impacts on the species shall be adhered to during construction:

1. The perimeter of construction will be delineated with exclosure fencing. The installation and removal of fencing will avoid direct impacts to existing Stephen's kangaroo rat burrows. Exclosure fencing will have the following specifications:
   a. Chain link fence with an erect height of 3 feet.
   b. The bottom 2 feet of the erect portion of the fencing needs to be covered in a material that cannot be climbed or chewed through by Stephen's kangaroo rat; metal flash or similar material is recommended.
   c. The bottom 2 feet of fencing must be buried two feet underground.
   d. The fence must be installed under the supervision of a qualified biologist with Stephen's kangaroo rat experience to oversee installation. This biologist will inspect the fence before leaving the job site in the evening and repair any opening in the fencing. The fence removal will also require the supervision of a qualified biologist.
2. A Worker Environmental Awareness Program (WEAP) will be developed and implemented prior to the start of excavation. The WEAP will be presented by the qualified biologist(s) and will cover the sensitive resources found on-site, flagging/fencing of exclusion areas, permit requirements, trash and debris collection and deposal, spill avoidance and clean-up, and other environmental issues.
3. Spoils, trash, and any excavation-generated debris will be removed to an approved off- site disposal facility. Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators to the site, such as common ravens, coyotes, and feral cats and dogs that may prey on listed species.
4. Construction activities will be limited to daylight hours.
5. Construction lighting will be shielded away from surrounding natural areas. Fixtures will be shielded to downcast below the horizontal plane of the fixture height and mounted as low as possible.

MM-BIO-5A **Burrowing Owl Avoidance and Mitigation Measures.** No less than 14 days prior to the onset of construction activities, a qualified biologist shall survey the construction limits of the Specific Plan Area and a 500-foot buffer for the presence of burrowing owls and occupied nest burrows. A second survey shall be conducted within 24 hours prior to the onset of construction activities. The surveys shall be conducted in accordance with the most current CDFW survey methods. If burrowing owls are not detected during the clearance survey, no additional conditions may be required to avoid impacts to burrowing owl.

If burrowing owl is documented, occupied burrowing owl burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either the birds have not begun egg laying and incubation, or that juveniles from the occupied burrows are foraging independently and capable of independent survival. Disturbance buffers shall be implemented by a qualified biologist in accordance with the recommendations included in the Staff Report on Burrowing Owl Mitigation

(CDFW 2012). A biologist shall be contracted to perform monitoring during all construction activities approximately every other day. The definitive frequency and duration of monitoring shall be dependent on whether it is the breeding versus non-breeding season and the efficacy of the exclusion buffers, as determined by a qualified biologist and in coordination with CDFW.

If burrowing owl is detected during the non-breeding season (September 1 through January 31) or confirmed to not be nesting, a non-disturbance buffer between the Project activities and the occupied burrow shall be installed by a qualified biologist in accordance with the recommendations included in the Staff Report on Burrowing Owl Mitigation (CDFW 2012).

MM-BIO-5B **Burrowing Owl Relocation and Mitigation Plan.** If avoidance is not possible, either directly or indirectly, a Burrowing Owl Relocation and Mitigation Plan (Plan) shall be prepared and submitted for approval by CDFW. Once approved, the Plan would be implemented to relocate non-breeding burrowing owls from the Specific Plan Area. The Plan shall detail methods for passive relocation of burrowing owls from the Specific Plan Area, provide guidance for monitoring and management of the replacement burrow sites, and associated reporting requirements, and ensure that a minimum of two suitable, unoccupied burrows, and associated suitable habitat, are available off site for every burrowing owl or pair of burrowing owls to be relocated. Compensatory mitigation of habitat would be required if occupied burrows or territories occur within the permanent impact footprint. Habitat compensation shall be approved by CDFW and detailed in the Burrowing Owl Relocation and Mitigation Plan.

The Project applicant shall submit at least one burrowing owl pre-construction survey report to the satisfaction of the March Joint Powers Authority and CDFW to document compliance with this mitigation/avoidance measure. For the purposes of this mitigation measure, 'qualified biologist' is a biologist who meets the requirements set forth in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012).

MM-BIO-6 **San Diego Black-Tailed Jackrabbit.** Thirty days prior to construction, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit. If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the pup-rearing season (February 15 through July 1). This buffer may be reduced based on the location of the den upon consultation with CDFW. Occupied maternity dens, depressions, nests, and burrows shall be flagged for avoidance. A biologist shall be contracted to perform daily monitoring during initial vegetation removal and throughout ground-disturbing activities that result in the breaking of the ground surface, as further described in MM-BIO-3 If construction fencing is installed, the contractor shall establish adequate openings within the southern and eastern fence perimeters to allow for passive dispersal into adjacent undeveloped lands during construction. If unattended young are discovered, they shall be relocated to suitable habitat by a qualified biologist. The qualified biologist shall document all San Diego black-tailed jackrabbits identified, avoided, and/or moved, and provide a written report to CDFW within 72 hours. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

MM-BIO-7 **Nesting Bird Avoidance and Minimization Measures.** The Specific Plan Area supports suitable habitat for nesting birds. As such, the following mitigation is required to reduce impacts on nesting birds: To avoid direct impacts to raptors and/or native/migratory birds (including California horned lark, Cooper's hawk and yellow warbler), vegetation removal and grading activities should occur outside of the breeding season for these species (February 1 through September 15). If removal of habitat in the proposed area of disturbance or building demolition must occur during the breeding season, a qualified biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds in the proposed area of disturbance and within a 100-foot buffer for general avian species and a 500-foot buffer for raptor species. The pre-construction survey shall be conducted within three (3) calendar days prior to the start of construction activities (including removal of vegetation) or building demolition.

If nesting birds are observed, a letter report or mitigation plan in conformance with applicable state and federal law (i.e., appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the CDFW and/or USFWS as applicable for review and approval and implemented to the measures identified in the report or mitigation plan are in place prior to and/or during construction. If nesting birds are not detected during the pre-construction survey, no further mitigation is required.

MM-BIO-8 **Upland Vegetation Communities.** To mitigate potential impacts on upland vegetation, the following mitigation shall be completed by the Applicant prior to issuance of grading permits. Note that upland native habitat mitigation outlined herein is consistent with the MSHCP requirements for these communities. Though the March JPA is an independent agency and not a participant under the MSHCP, performing mitigation in compliance with this regional conservation plan helps minimize and avoids significant cumulative biological impacts.

Project impacts on encelia scrub (1.53 acres) flat-topped buckwheat (4.56 acres), Riversidean sage scrub (5.54 acres) shall be mitigated at a 1:1 ratio, and Project impacts on Riversidean sage scrub – disturbed (4.05 acres) will be mitigated at a 0.5:1 ratio through the purchase of 13.66 acres of coastal or Riversidean sage scrub credits at an approved mitigation bank, such as the Chiquita Canyon Conservation Bank, Soquel Canyon Mitigation Bank, Brook Forest Conservation Bank, or Daley Ranch Conservation Bank.

MM-BIO-9 **Aquatic Resources Mitigation.** The Specific Plan Area supports aquatic resources that are considered jurisdictional under the USACE, RWQCB and CDFW. Prior to construction activity, the Applicant shall coordinate with the USACE, Los Angeles District to assure conformance with the requirements of Section 404 of the Clean Water Act and with the Santa Ana RWQCB (Region 8) to assure conformance with the requirements of Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Prior to activity within CDFW-jurisdictional streambed or associated riparian habitat, the Applicant shall coordinate with CDFW (Eastern Sierra and Inland Desert Region 6) relative to conformance to the Lake and Streambed Alteration permit requirements.

The Project shall mitigate at not less than 1:1 with re-establishment credits (0.28 acres USACE/0.28 acres RWQCB/1.68 acres CDFW) for impacts on aquatic resources as a part of an overall strategy to ensure no net loss. Mitigation shall be completed through use of a mitigation

bank (e.g., Riverpark Mitigation Bank or the Barry Jones Wetland Mitigation Bank) or other applicant-sponsored mitigation (e.g., applicant-sponsored mitigation through the Riverside-Corona Resource Conservation District). Final mitigation ratios and credits shall be determined in consultation with the USACE, 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 will include but is not limited to: 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 off-site applicant sponsored mitigation shall be conserved and managed in perpetuity.

Best management practices (BMPs) shall be implemented to avoid any indirect impacts on jurisdictional waters, including the following:

- Vehicles and equipment will not be operated in ponded or flowing water or within buffer areas as determined by the agencies during aquatic resource permitting, except as described in permits.
- Water containing mud, silt, or other pollutants from grading or other activities will not be allowed to enter jurisdictional waters or be placed in locations that may be subjected to high storm flows.
- Spoil sites will 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, will be prevented from contaminating the soil and/or entering avoided jurisdictional waters and buffer areas as determined by the agencies during aquatic resource permitting.
- No equipment maintenance will be performed within jurisdictional waters or within buffer areas as determined by the agencies during aquatic resource permitting, including wetlands and riparian areas, where petroleum products or other pollutants from the equipment may enter these areas. Fueling of equipment will not occur on the Project site.

4.3.6 Level of Significance After Mitigation

Threshold BIO-1

Special-Status Plant Species

Smooth tarplant is a CRPR rank 1B.1 species and State Rank S2. Focused surveys for this species were completed and were negative. No other special-status species have a moderate or high potential to occur within the Specific Plan Area and therefore **no direct and indirect impacts would occur**.

Special-Status Wildlife Species

Federally and/or State Listed Endangered or Threatened Species

Least Bell's vireo is federally and state listed as endangered. Focused surveys for least Bell's vireo were conducted in the Spring and Summer of 2022. The Specific Plan Area was negative for least Bell's vireo; however, the species was detected adjacent to the Project boundary within the Study Area. Construction and operation activities could result in potentially significant indirect impacts to this species. Indirect impacts to least Bell's vireo would be reduced by implementation of **MM-BIO-2**, which requires biological monitoring during vegetation clearing and ground disturbance that results in breaking the ground surface; clearly marking work limits; restriction of vehicle speed limits to 15 mph or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly to minimize short-term impacts of increased human activities; and incorporation of native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species. In addition, **MM-BIO-1**, requires that construction limits are flagged, workers have environmental education regarding least Bell's vireo, and construction noise is kept below 60 dBA during the breeding season. These measures would reduce potential indirect impacts to least Bell's vireo. Finally, **MM-BIO-3** ensures runoff is not altered from existing condition and toxicants are not discharged, restoration of temporary impacts, preparation of landscaping plans that will emphasize native species and not include species from the Cal-IPC California Invasive Plant Inventory, incorporation of barriers to prevent unauthorized public access to areas with potential habitat special-status species, and stipulations that night-lighting will not be directed towards open space areas. With implementation of **MM-BIO-1**, **MM-BIO-2**, and **MM-BIO-3**, impacts to least Bell's vireo would be **less than significant with mitigation incorporated**.

Stephens' kangaroo rat is federally listed as endangered and state listed as threatened. It has a high potential to occur within the Study Area due to the presence of moderate-quality habitat. USFWS and CDFW confirmed in 2006 that the areas taken out of the "Stephens' kangaroo rat management area" were no longer part of the Core Reserve and incidental take was authorized within these areas pursuant to the HCP (USFWS/CDFG WRIV-3259.5), and a Riverside County Habitat Conservation Agency (RCHCA) fee was paid. Thus, incidental take of Stephens' kangaroo rat within the Specific Plan Area is permitted. Indirect impacts to Stephens' kangaroo rat would be reduced by implementation of **MM-BIO-4**, which requires the installation of exclosure fencing, the development and implementation of a WEAP, containment and removal of food and trash from the site, limiting construction activities to daylight hours, and installation of shielded lighting. In addition, **MM-BIO-2** requires biological monitoring; clearly marking work limits; restricting vehicle speed limits to 15 mph or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly to minimize short-term impacts of increased human activities; and incorporation of native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species. Finally, **MM-BIO-3** ensures runoff is not altered from existing condition and toxicants are not discharged, restoration of temporary impacts, preparation of landscaping plans that will emphasize native species and not include species from the Cal-IPC California Invasive Plant Inventory, incorporation of barriers to prevent unauthorized public access to areas with potential habitat special-status species, and stipulations that night-lighting will not be directed towards open space areas. With implementation of **MM-BIO-2, MM-BIO-3,** and **MM-BIO-4**, impacts to Stephen's kangaroo rat would be **less than significant with mitigation incorporated**.

Non-Listed Special-Status Species

Burrowing owl is a Species of Special Concern and has a high potential to occur on the Study Area. Removal of occupied habitat would result in potentially significant impacts to this species. Direct and indirect impacts to burrowing owl would be reduced by implementation of **MM-BIO-5A** and **MM-BIO-5B**. **MM-BIO-5A** requires pre-

construction surveys and buffers for occupied burrows, and monitoring during construction to ensure complete avoidance. **MM-BIO-5B** requires the preparation of a Burrowing Owl Relocation and Mitigation Plan and habitat compensation for the loss of occupied habitat. **MM-BIO-1** requires biological monitoring; clearly marking work limits; restricting vehicle speed limits to 15 mph or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly to minimize short-term impacts of increased human activities; and incorporation of native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species. Finally, **MM-BIO-3** ensures runoff is not altered from existing condition and toxicants are not discharged, restoration of temporary impacts, preparation of landscaping plans that will emphasize native species and not include species from the Cal-IPC California Invasive Plant Inventory, incorporation of barriers to prevent unauthorized public access to areas with potential habitat special-status species, and stipulations that night-lighting will not be directed towards open space areas. With implementation of **MM-BIO-1**, **MM-BIO-3**, **MM-BIO-5A,** and **MM-BIO-5B**, potential direct and indirect impacts to burrowing owl would be **less than significant with mitigation incorporated.**

San Diego black-tailed jackrabbit is a CDFW Species of Special Concern and has been observed in the Study Area during the biological surveys of 2021. Construction activities associated with the Project could cause direct impacts to individuals and young. **MM-BIO-6** requires a pre-construction survey be conducted 30 days prior to ground-disturbing activities and the demarcation and avoidance of active maternity dens during the pup-rearing season (February 15 through July 1). **MM-BIO-1** requires biological monitoring during vegetation clearing and ground disturbance that results in breaking the ground surface; clearly marking work limits; restriction of vehicle speed limits to 15 mph or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly to minimize short-term impacts of increased human activities; and incorporation of native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species. **MM-BIO-3** ensures runoff is not altered from existing condition and toxicants are not discharged, restoration of temporary impacts, preparation of landscaping plans that will emphasize native species and not include species from the Cal-IPC California Invasive Plant Inventory, incorporation of barriers to prevent unauthorized public access to areas with potential habitat special-status species, and stipulations that night-lighting will not be directed towards open space areas. These measures would reduce potential indirect impacts to San Diego black-tailed jackrabbit. With implementation of **MM-BIO-1**, **MM-BIO-3**, and **MM-BIO-6**, potential direct and indirect impacts to San Diego black-tailed jackrabbit would be **less than significant with mitigation incorporated.**

Coastal whiptail (SSC), Cooper's hawk (CDFW Watch List), and yellow warbler (SSC) were all observed within the Study Area during 2021 surveys. Additionally, California horned lark (SSC), has a high potential to occur, and both western yellow bat (SSC) and orange-throated whiptail (SSC) have a moderate potential to occur within the Study Area.

Potential direct mortality of coastal whiptail, orange-throated whiptail, and western yellow bat could occur during construction activities and would be considered a significant impact. Impacts to these species would be reduced to less than significant by implementation of **MM-BIO-1**, which requires a biologist flush sensitive species from suitable habitat immediately prior to initial ground disturbing activities and daily biological monitoring during the initial vegetation removal and during any ground disturbing activities that result in breaking of the ground surface. In addition, the measure calls for regular random checks at least once a week thereafter and sets forth BMPs to reduce impacts to special status species. With implementation of **MM-BIO-1**, impacts to coastal whiptail, orange-throated whiptail, and western yellow bat would be **less than significant with mitigation incorporated**.

Implementation of nesting bird protections detailed in **MM-BIO-7** would reduce any potential impacts on nesting birds to less than significant, as this measure calls for construction to take place outside of breeding season (February 1 to September 15). If construction does occur during breeding season, **MM-BIO-7** calls for pre-construction nesting bird

surveys, flagging and avoidance of any active nests. **MM-BIO-1** requires biological monitoring during vegetation clearing and ground disturbance that results in breaking the ground surface; clearly marking work limits; restriction of vehicle speed limits to 15 mph or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly to minimize short-term impacts of increased human activities; and incorporation of native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species. With implementation of **MM-BIO-1** and **MM-BIO-7**, impacts to Cooper's haw, yellow warbler, and California horned lark would be **less than significant with mitigation incorporated**.

The Study Area contains habitat that could be used by birds for nesting, which would be protected under the Migratory Bird Treaty Act and/or the California Fish and Game Code (Section 3503). Potentially significant impacts could occur if vegetation clearing takes place during the breeding season (February 1 through September 15). **MM-BIO-7** calls for removal of habitat to occur outside of the breeding season. If vegetation removal cannot occur outside of the breeding season, **MM-BIO-7** requires a pre-construction nesting bird survey, thus addressing direct and indirect impacts to nesting birds. **MM-BIO-1** requires biological monitoring during vegetation clearing and ground disturbance that results in breaking the ground surface; clearly marking work limits; restriction of vehicle speed limits to 15 mph or slower to minimize the generation of fugitive dust; pet restrictions; measures to ensure that trash and debris are disposed of properly to minimize short-term impacts of increased human activities; and incorporation of native, non-invasive landscaping to minimize the spread of non-native invasive plant and animal species. With implementation of **MM-BIO-1** and **MM-BIO-7**, impacts to nesting birds would be **less than significant with mitigation incorporated**.

The proposed Project would permanently impact 0.28 acre (5,304 linear feet) of non-wetland waters of the U.S. jurisdictional by the USACE; 0.28 acre (5,304 linear feet) of non-wetland waters of the State jurisdictional by the RWQCB; and 1.68 acre (5,304 linear feet) of vegetated streambed and 0.63 acre of riparian habitat jurisdictional by the CDFW. **MM-BIO-9** requires compensatory mitigation and that applicable resource agency permits are received prior to Project implementation, requires that equipment and spoil sites are not placed within or adjacent to aquatic resources, and requires that pollutants be contained to prevent contamination of soils and/or waterways. Furthermore, **MM-BIO-1** ensures that work limits are clearly marked, trash and debris are disposed of properly, removed vegetation will be kept out of waterways to limit the spread of non-native species, and construction materials and equipment will be kept away from aquatic resources. With implementation of **MM-BIO-1** and **MM-BIO-9**, potential direct and indirect impacts to jurisdictional waters would be **less than significant with mitigation incorporated**.

Based on the above information, all impacts can be **mitigated to a less than significant level**.

4.3.7 Cumulative Effects

The geographic extent for this cumulative impact analysis includes the jurisdiction of the March JPA Planning Area and the surrounding area. Table 4-1 within Chapter 4, Environmental Analysis, of this EIR includes a list of cumulative development proposals within the vicinity of the Project site. Proposed projects near the Project site include projects in unincorporated Riverside County and the City of Riverside and City of Moreno Valley within Riverside County. This accounts for development projects within the nearby vicinity that may provide habitat for the same species as the Project site.

As discussed in Section 4.3.1, Existing Conditions, several special-status plant and wildlife species were determined to be present or have the potential to occur in the Study Area, including: Riverside fairy shrimp, vernal pool fairy shrimp, least Bell's vireo, Stephen's kangaroo rat, coastal whiptail, orange throat whiptail, burrowing owl, Cooper's

hawk, yellow warbler, California horned lark, San Diego black-tailed jackrabbit, and western yellow bat. Project implementation would also include impacts to sensitive vegetation communities, and jurisdictional waters. To reduce potential impacts to special-status species and sensitive habitats associated with the Specific Plan Area, **MM-BIO-1** through **MM-BIO-9** (refer to EIR Section 4.3.5, Mitigation Measures) would be implemented. Project-specific impacts to special-status species and sensitive habitats would be **mitigated to a less than significant** level and impacts would be considered less than cumulatively considerable.

Proposed development that would occur on previously undeveloped land would be required to undergo an evaluation for compliance with biological resources regulations and policies, as the proposed Project has done, and would be required to mitigate impacts to less than significant. The surrounding jurisdictions are permittees under the MSHCP and the Stephens' Kangaroo Rat HCP so cumulative projects within their jurisdictions would be subject to consistency with the MSHCP and the Stephens' Kangaroo Rat HCP. Given that March JPA is not a permittee under the Western Riverside MSHCP or the Stephens' Kangaroo Rat HCP, the Project would not result in conflicts with these plans. Nevertheless, proposed Project mitigation (**MM-BIO-1, MM-BIO-5A,** and **MM-BIO-5B**) is consistent with the Western Riverside MSHCP requirements for burrowing owl. Implementation of **MM-BIO-1**, **MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5**, and **MM-BIO-6** would also provide protection for other MSHCP covered species. For riparian, riverine, and vernal pool resources covered under the MSHCP, impacts are fully addressed through **MM-BIO-2** and **MM-BIO-9**. Furthermore, the Project includes the Conservation Easement that is considered Public/Quasi-Public lands by the MSHCP. This land will be counted as MSHCP Conservation Lands. The proposed development is located outside of the Public/Quasi-Public lands identified by the MSHCP. **MM-BIO-1** and **MM-BIO-3** will minimize indirect impacts to the Conservation Easement. Given that all Project-specific direct and indirect impacts can be mitigated to less than significant, the Project would not create or contribute to a significant cumulative impact.

Given that Project-specific impacts can be mitigated to less than significant, that other projects would be required to adhere to the same biological resources regulations and policies, and that this area was already planned for development as part of a larger military base redevelopment (March JPA 1999), the Project would not create or contribute to a significant cumulative impact. Cumulative impacts would be **less than significant with mitigation incorporated**.

4.3.8 References Cited

73 CR 19594-19702. Final rule: "Compensatory Mitigation for Losses of Aquatic Resources." April 10, 2008.

California Department of Fish and Wildlife (CDFW). n.d. Description of CNDDB Fields. Accessed July 2021. https://map.dfg.ca.gov/rarefind/view/RF_FieldDescriptions.htm

Chester, T. 2007. *Vernal Pools of the Santa Rosa Plateau*. Accessed September 2020. http://tchester.org/srp/vp/.

CDFW. 2021a. California Department of Fish and Game Natural Diversity Data Base – Electronic Format.

CDFW. 2021b. California Natural Community List. September 9. Accessed September 2021. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline

CNPS (California Native Plant Society) Rare Plant Program. 2020. *Technical Memorandum: Considerations for Including CRPR 4 Plant Taxa in CEQA Biological Resource Impact Analysis*. January 21. https://www.cnps.org/wp-content/uploads/2020/02/crpr4_technical_memo.pdf

CNPS Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed July 2021. http://www.rareplants.cnps.org

Faber-Langendoen, D., T. Keeler-Wolf, D. Meidinger, C. Josse, A. Weakley, D. Tart, G. Navarro, B. Hoagland, S. Ponomarenko, J.P. Saucier, G. Fults, and E. Helmer. 2012. "Classification and Description of World Formation Types." Part II (Description of formation types). Hierarchy Revisions Working Group, Federal Geographic Data Committee, FGDC Secretariat, U.S. Geological Survey and NatureServe, Reston, Virginia and Arlington, Virginia.

Gervais, J. A., D. K. Rosenberg, and L. A. Comrack. 2008. "Burrowing owl (*Athene cunicularia*)". *California bird species of special concern: a ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California* (WD Shuford and T. Gardali, editors). Western Field Ornithologists and California Department of Fish and Game, Studies of Western Birds, 1, pp.1-450.

Haug, E.A., B. A. Millsap, and M. S. Martell. 1993. *Burrowing Owl: Speotyto Cunicularia*. American Ornithologists' Union.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. State of California, The Resources Agency, Department of Fish and Game.

March JPA (Joint Powers Authority). 1999a. General Plan of the March Joint Powers Authority. Accessed May 21, 2020. http://www.marchjpa.com/documents/docs_forms/general_plan.pdf.

RCA (Regional Conservation Authority). 2003. *Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) – Final MSHCP*. Accessed June 2020. https://www.wrc-rca.org/document-library/.

RCA. 2021. RCA MSHCP Information Map; online viewer. Accessed 2021. https://www.wrc-rca.org/rcamaps/.

RCHCA (Riverside County Habitat Conservation Agency). 1996. *Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California*. March 1996.

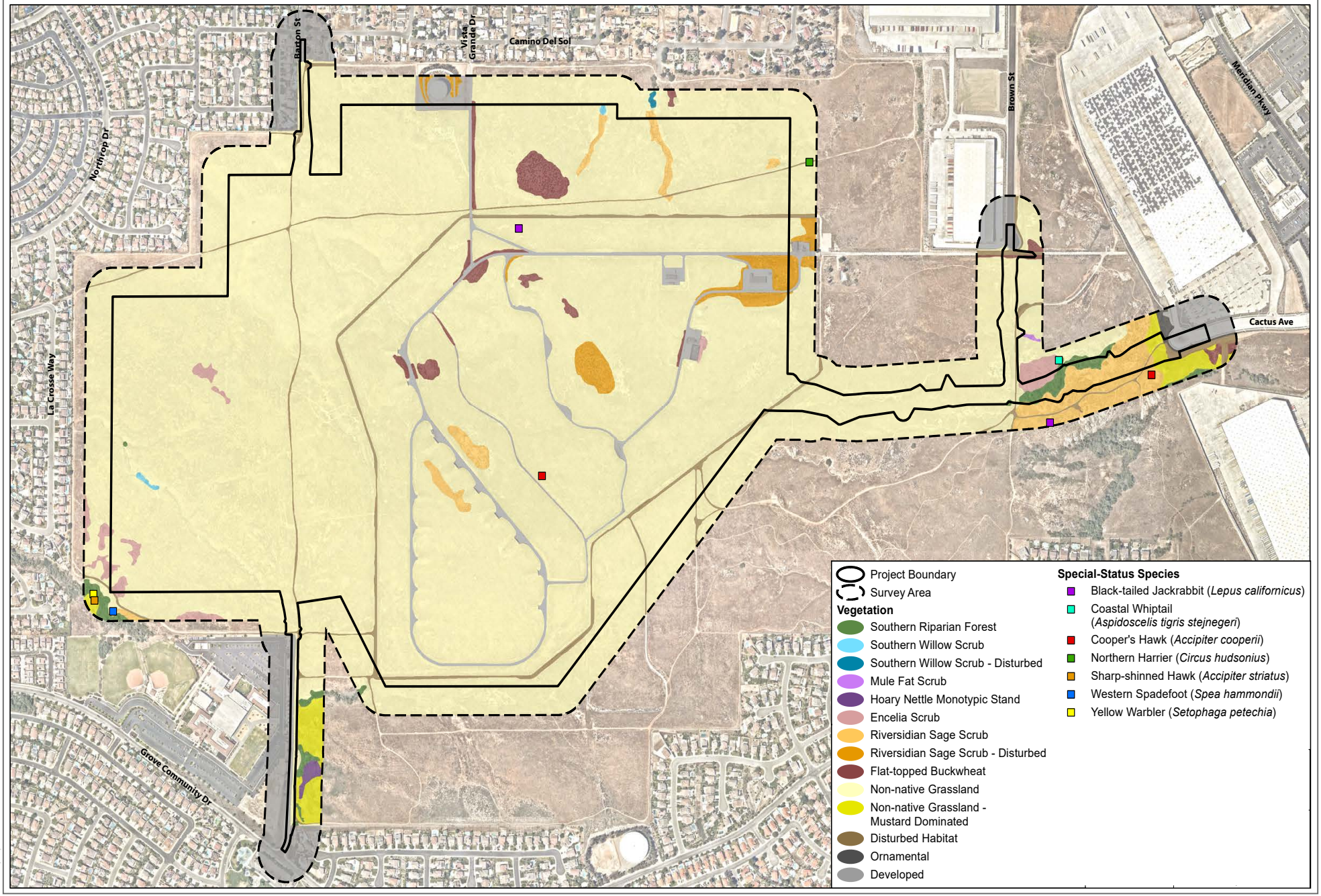
Sawyer, J., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*. 2nd ed. Sacramento, California: California Native Plant Society.

USACE (U.S. Army Corps of Engineers). 1987. *Corps of Engineers Wetlands Delineation Manual.* Online ed. Environmental Laboratory, Wetlands Research Program Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station. January 1987. http://www.fedcenter.gov/Bookmarks/index.cfm?id=6403&pge_id=1606.

USACE. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0). Eds. J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

USFWS (U.S. Fish and Wildlife Service). 2003. "Completion of the Land Acquisition Portion of the Reserve Expansion Requirement of the Long-Term Habitat Conservation Plan for the Stephens' Kangaroo Rat and Exchange of the SKR Management Area of the Former March Air Force Base." December 29, 2003.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White (eds). 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California.



SOURCE: Rocks Biological Consulting 2022

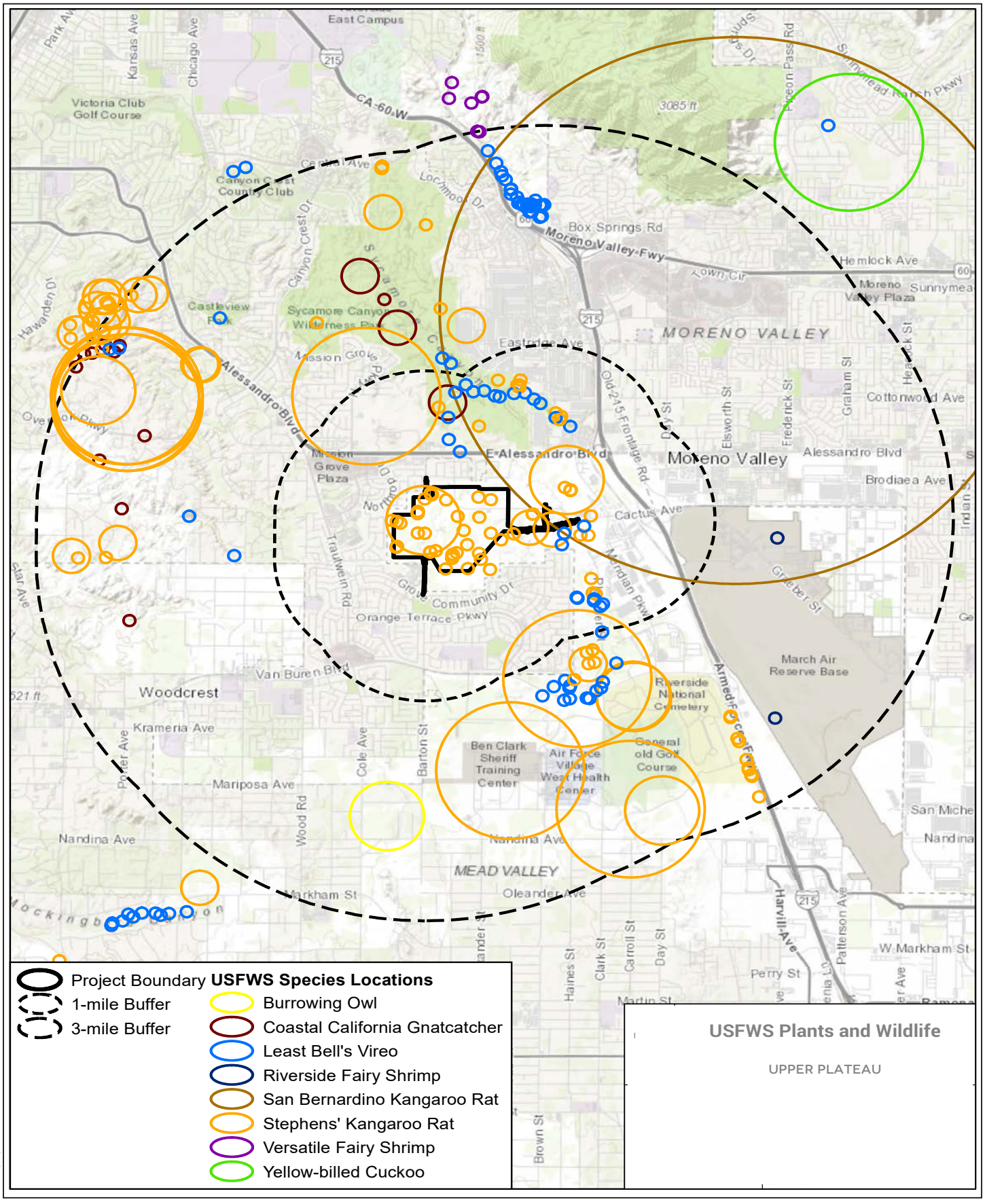
FIGURE 4.3-1

Biological Resources in the Project Site

West Campus Upper Plateau Draft EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: Rocks Biological Consulting 2022

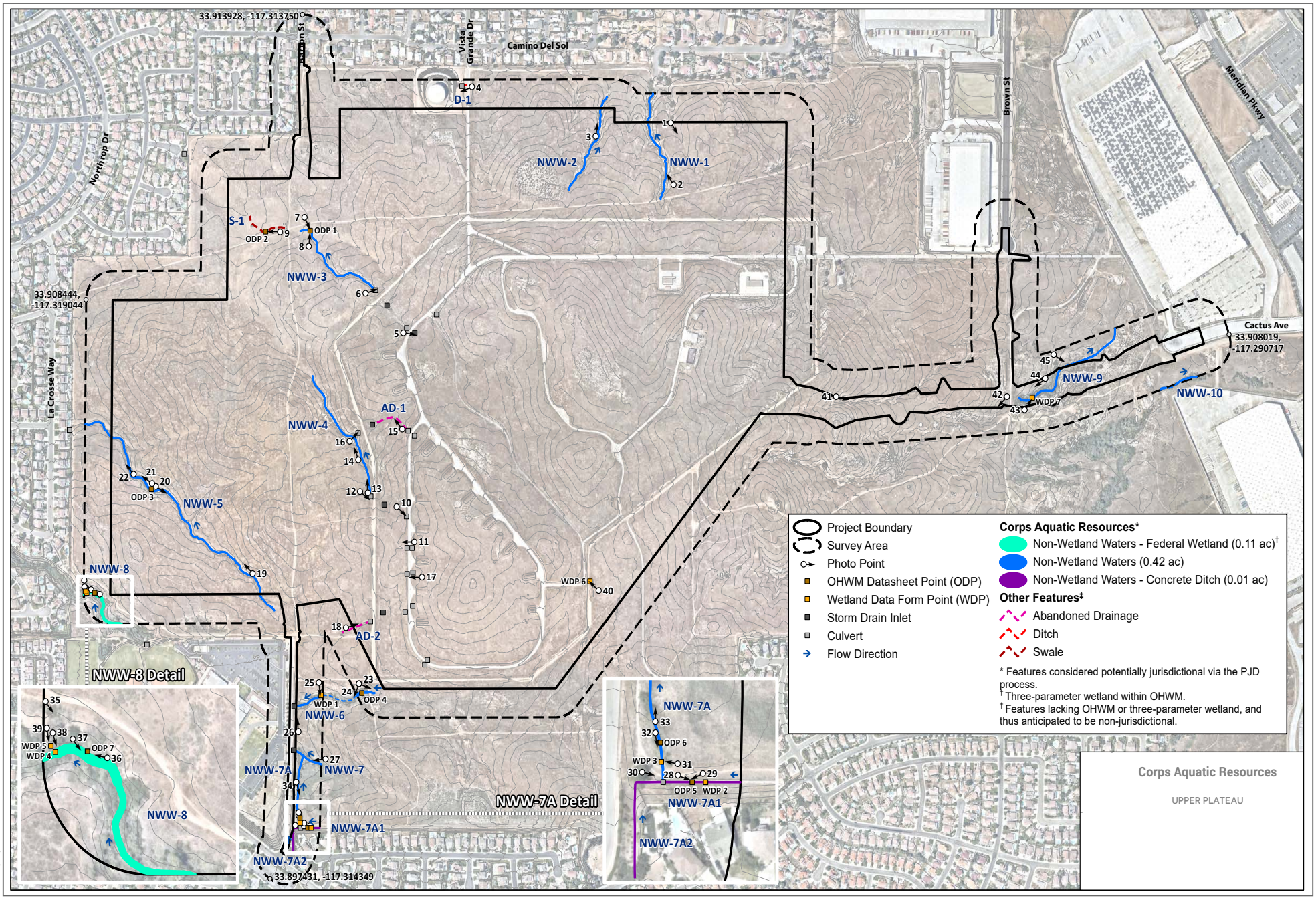
FIGURE 4.3-2

USFWS Plants and Wildlife Occurrence Map

West Campus Upper Plateau Draft EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: Rocks Biological Consulting 2022

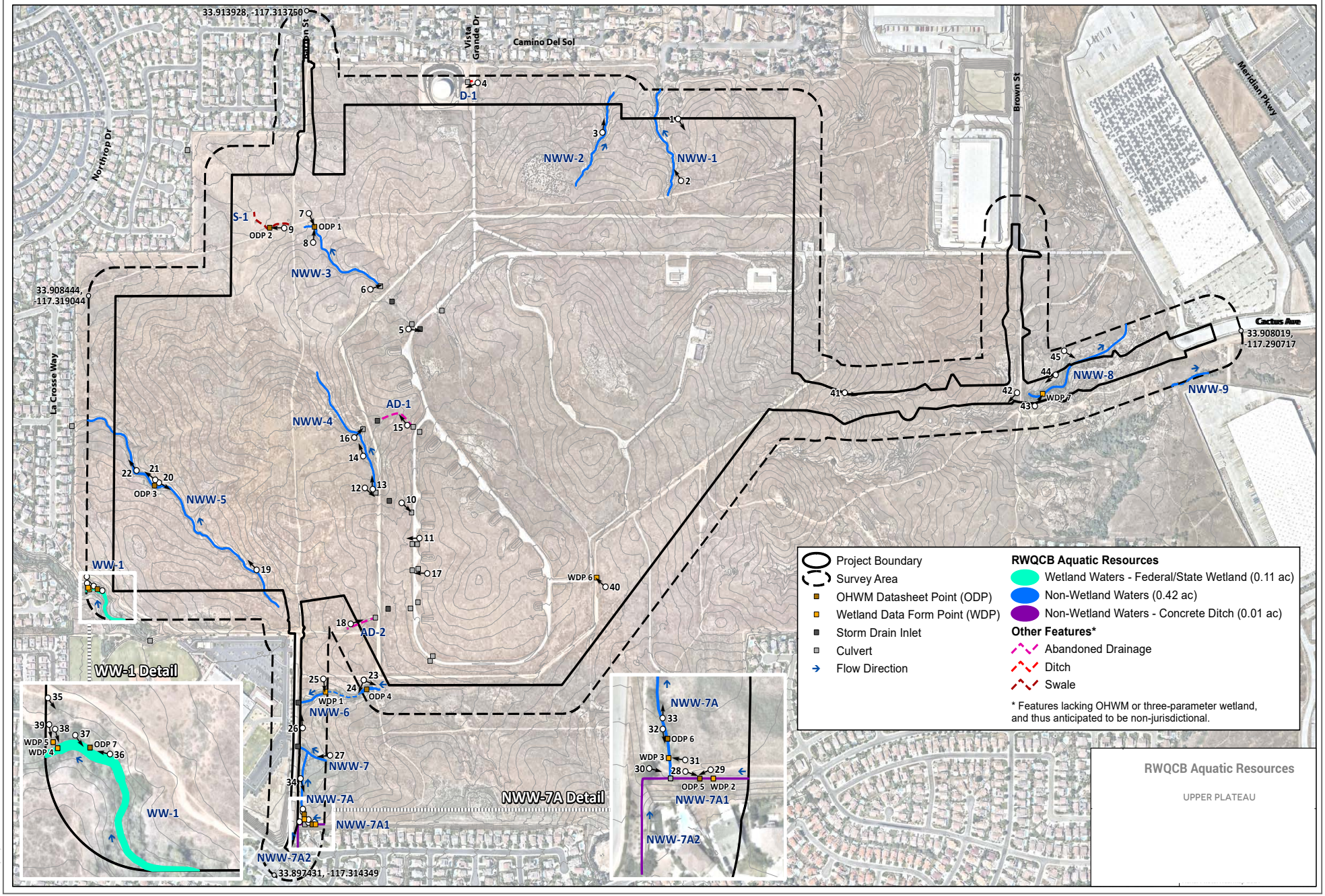
DUDEK

FIGURE 4.3-3A

Corps Aquatic Resources

West Campus Upper Plateau Draft EIR

INTENTIONALLY LEFT BLANK



SOURCE: Rocks Biological Consulting 2022

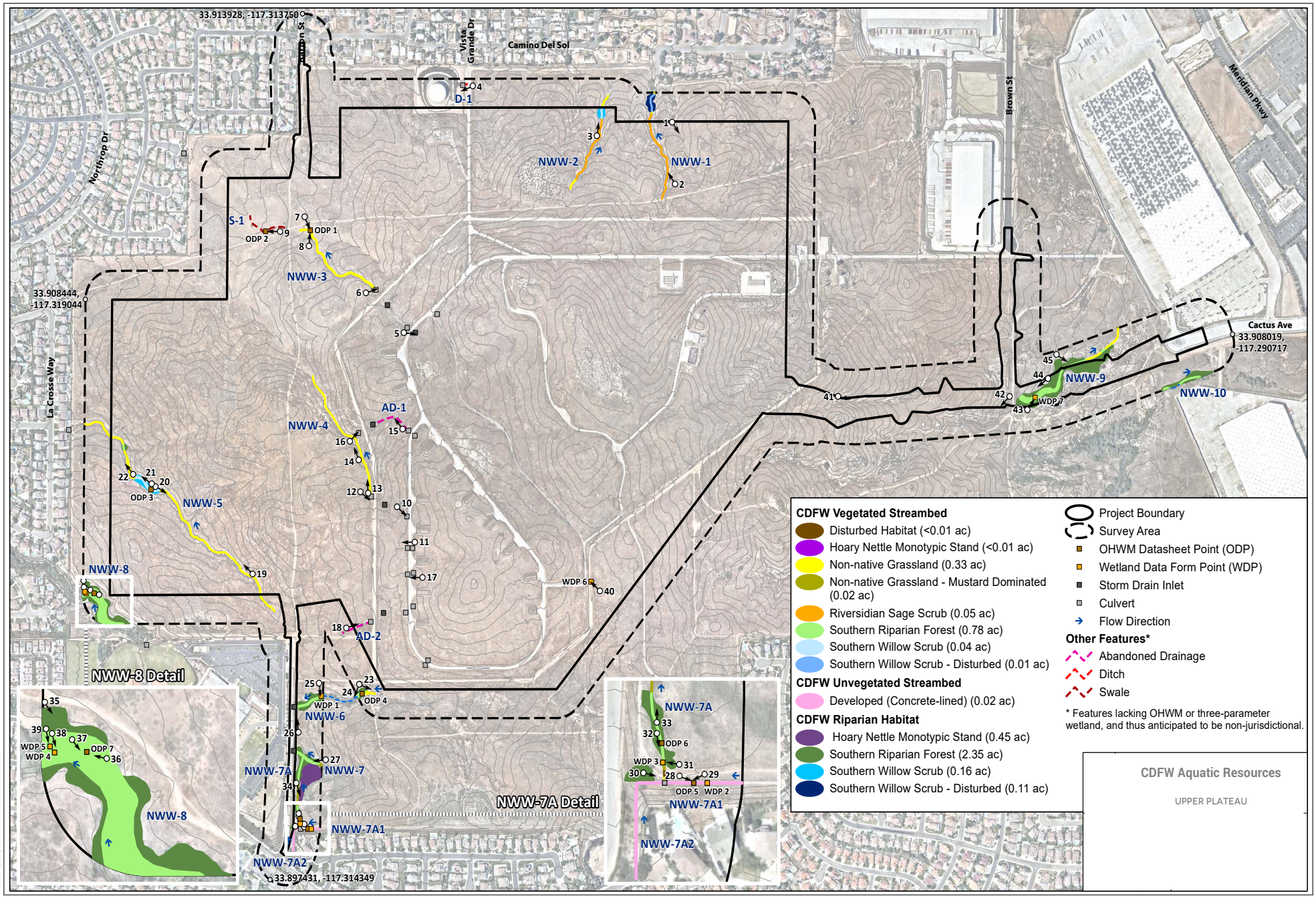
DUDEK

FIGURE 4.3-3B

RWQCB Aquatic Resources

West Campus Upper Plateau Draft EIR

INTENTIONALLY LEFT BLANK



SOURCE: Rocks Biological Consulting 2022

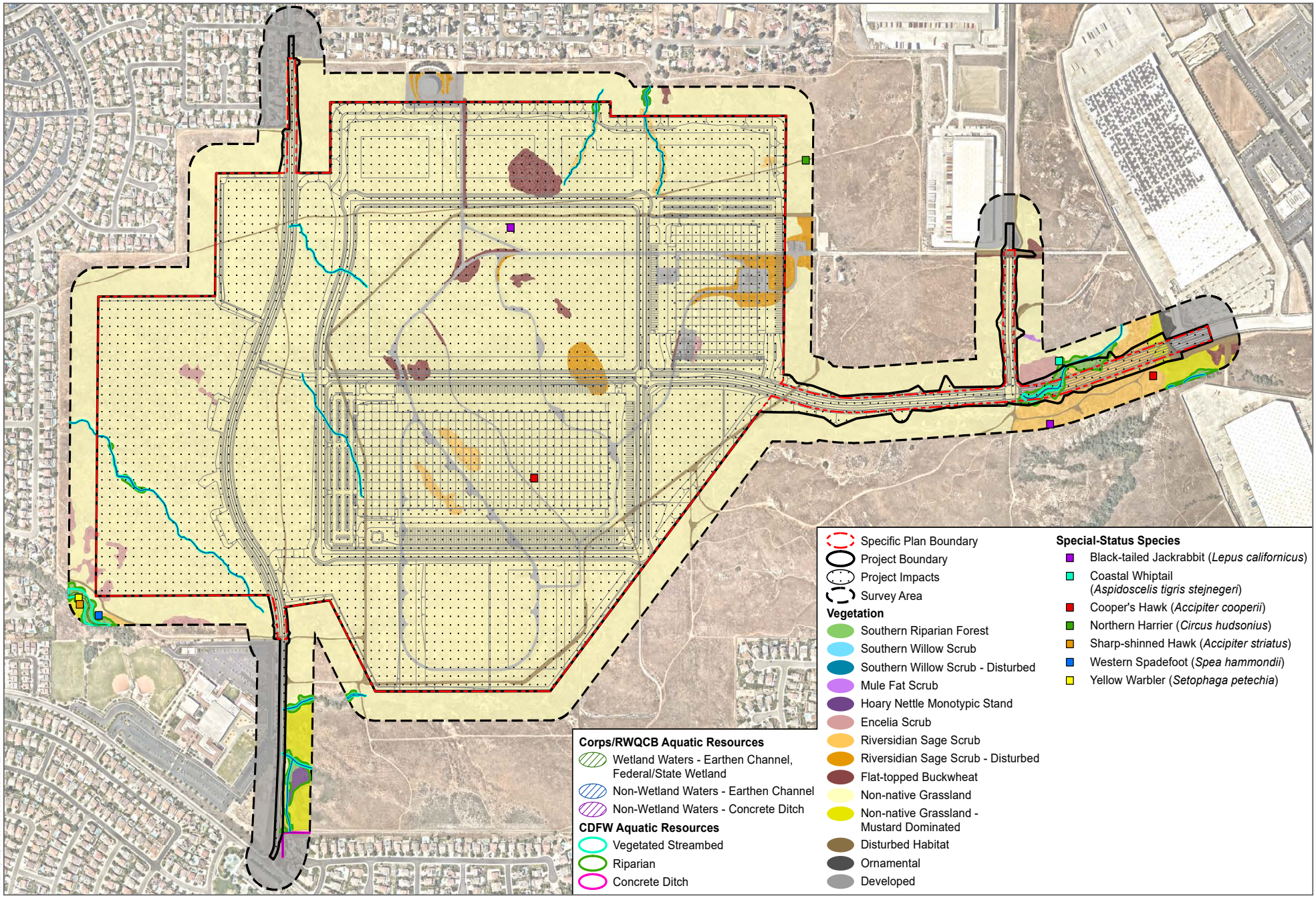
DUDEK

FIGURE 4.3-3C

CDFW Aquatic Resources

West Campus Upper Plateau Draft EIR

INTENTIONALLY LEFT BLANK



SOURCE: Rocks Biological Consulting 2022

DUDEK

FIGURE 4.3-4

Proposed Project Impacts

West Campus Upper Plateau Draft EIR

INTENTIONALLY LEFT BLANK

4.4 Cultural Resources

This section describes the existing cultural and historical setting of the proposed West Campus Upper Plateau Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project. The following analysis is based in part upon the following document:

- Cultural Resources Study (Appendix E-1), prepared in 2022 by Brian F. Smith and Associates Inc.
- Historic Structure Assessment (Appendix E-2), prepared in 2022 by BFSA Environmental Services, a Perennial Company (BFSA)

As discussed in detail in Chapter 3, Project Description of this EIR. The Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

The Project Area of Potential Effects (APE) covers the Specific Plan Area which consists of the area of direct impacts (380 acres) and a 50-foot buffer, for a total of 415 acres. The proposed off-site road improvements and buffer areas add approximately 35 acres to the APE. With the exception of the buffer area, the APE does not include the Conservation Easement, as it will be placed under a conservation easement and no ground disturbance or other development is proposed.

The Cultural Resources Study includes an archaeological records search from the Eastern Information Center (EIC) at the University of California, Riverside (UCR), background historical research on the Project area, Native American coordination, an intensive pedestrian field survey, and additional detailed mapping and archaeological feature recordation. The scope of work performed by Brian F. Smith and Associates, Inc. is consistent with the National Historic Preservation Act, Section 106, the National Environmental Policy Act, and CEQA.

4.4.1 Existing Conditions

Natural Setting

The Project APE consists of 415-acres and is located generally between Interstate 215 (I-215) and Trautwein Road, situated southwest of the intersection of Meridian Parkway and East Alessandro Boulevard within an unincorporated portion of Riverside County. Additionally, the Project site is dominated by a plateau (referred to as the Upper Plateau) which is surrounded by low rolling hills separated by seasonal drainages. The Upper Plateau area is partially developed since the location previously housed the March Air Force Base's (March AFB) Weapons Storage Area (WSA). The Project site is located just outside of the City of Riverside, situated southeast of the Mission Grove neighborhood, north of the Orangecrest neighborhood, southeast of Sycamore Canyon Business Park, and west of the Meridian West industrial project. As such, it primarily consists of open land with residential developments to the north, northwest, west, and south, while light industrial warehouses occupy the land to the east and northeast. Vegetation found within the subject property is dominated by non-native weeds and grasses; however, pockets of sage scrub are found throughout as well as some limited riparian habitat situated near and within the seasonal drainages (Appendix E-1).

Additionally, the Project site lies within the Peninsular Ranges Geologic Province of southern California. The mountain range, which lies in a northwest to southeast trend through the county, extends approximately 1,000 miles from the Raymond-Malibu Fault Zone in western Los Angeles County to the southern tip of Baja California. Regionally, the Project APE is within the Perris Block, a fault-bounded crustal block, bounded on the west by the Elsinore fault zone and on the east by the San Jacinto fault zone. The geology mapped for the Project APE is mostly underlain by the Cretaceous-aged Val Verde tonalite, a type of crystalline plutonic rock related to granite. Scattered, linear outcrops of Cretaceous granitic dikes, Paleozoic biotite schist, and mixed-provenance crystalline rocks of pre-Cenozoic age are mapped as surrounded by the Val Verde tonalite within the Project APE. At the far eastern portion of the Project APE, lower Pleistocene (approximately 1.8 million- to perhaps 200,000- to 300,000-year-old), sandy, very old alluvial fan deposits are mapped. The specific soil types found within the Project APE primarily are categorized as Fallbrook rocky sandy loam, Vista coarse sandy loam, Monserate sandy loam, and Cieneba rocky sandy loam (Appendix E-1).

The Project APE is situated within Sections 15, 16, 17, and 21, Township 2 South, Range 4 West, of the San Bernardino Baseline and Meridian on the 7.5-minute United States Geological Survey (USGS) Riverside East, California topographic quadrangle map (Appendix E-1). Specifically, the Cultural Resources Study conducted an archaeological survey of the approximately 415-acre Project APE comprising of Assessor's Parcel Numbers (APNs) 276-120-001, 276-120-007, 294-020-001, 297-080-001 through -004, 297-080-013, 297-080-015, 297-080-016, 297-090-001 through -004, 297-090-006 through -009, 297-100-084 and -85, 297-090-093, and 297-110-036 (Appendix E-1).

Cultural Setting

The Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Takic groups are the three general cultural periods represented in Riverside County. The Late Prehistoric component present in Riverside County was primarily represented by the Cahuilla, Gabrielino, and Luiseño Indians. Reference will be made to the geological framework that divides the archaeologically-based culture chronology of the area into four segments: the late Pleistocene (20,000 to 10,000 years before the present [YBP]), the early Holocene (10,000 to 6,650 YBP), the middle Holocene (6,650 to 3,350 YBP), and the late Holocene (3,350 to 200 YBP) (Appendix E-1).

Prehistoric Context

Paleo Indian Period (Late Pleistocene: 11,500 to circa 9,000 YBP)

Archaeologically, the Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands (Moratto 1984). However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes (Moratto 1984; Martin 1967, 1973; Fagan 1991). The coastal shoreline at 10,000 YBP, depending upon the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location (Masters 1983) (Appendix E-1).

Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering, and collecting adaptation utilizing a variety of resources including birds, mollusks, and both large and small mammals (Erlandson and Colten 1991; Moratto 1984; Moss and Erlandson 1995) (Appendix E-1).

Archaic Period (Early and Middle Holocene: circa 9,000 to 1,300 YBP)

Archaeological data indicates that between 9,000 and 8,000 YBP, a widespread complex was established in the southern California region, primarily along the coast (Warren and True 1961). This complex is locally known as the La Jolla Complex (Rogers 1939; Moriarty 1966), which is regionally associated with the Encinitas Tradition (Warren 1968) and shares cultural components with the widespread Milling Stone Horizon (Wallace 1955). The coastal expression of this complex appeared in southern California coastal areas and focused upon coastal resources and the development of deeply stratified shell middens that were primarily located around bays and lagoons. The older sites associated with this expression are located at Topanga Canyon, Newport Bay, Agua Hedionda Lagoon, and some of the Channel Islands. Radiocarbon dates from sites attributed to this complex span a period of over 7,000 years in this region, beginning over 9,000 YBP (Appendix E-1).

The Encinitas Tradition is best recognized for its pattern of large coastal sites characterized by shell middens, grinding tools that are closely associated with the marine resources of the area, cobble-based tools, and flexed human burials (Shumway et al. 1961; Smith and Moriarty 1985). While ground stone tools and scrapers are the most recognized tool types, coastal Encinitas Tradition sites also contain numerous utilized flakes, which may have been used to pry open shellfish. Artifact assemblages at coastal sites indicate a subsistence pattern focused upon shellfish collection and nearshore fishing. This suggests an incipient maritime adaptation with regional similarities to more northern sites of the same period (Koerper et al. 1986). Other artifacts associated with Encinitas Tradition sites include stone bowls, doughnut stones, discoidals, stone balls, and stone, bone, and shell beads (Appendix E-1).

The coastal lagoons in southern California supported large Milling Stone Horizon populations circa 6,000 YBP, as is shown by numerous radiocarbon dates from the many sites adjacent to the lagoons. The ensuing millennia were not stable environmentally, and by 3,000 YBP, many of the coastal sites in central San Diego County had been abandoned (Gallegos 1987, 1992). The abandonment of the area is usually attributed to the sedimentation of coastal lagoons and the resulting deterioration of fish and mollusk habitat, which is a well-documented situation at Batiquitos Lagoon (Miller 1966; Gallegos 1987). Over a two-thousand-year period at Batiquitos Lagoon, dominant mollusk species occurring in archaeological middens shift from deep-water mollusks (*Argopecten* sp.) to species

tolerant of tidal flat conditions (*Chione* sp.), indicating water depth and temperature changes (Miller 1966; Gallegos 1987) (Appendix E-1).

This situation likely occurred for other small drainages (Buena Vista, Agua Hedionda, San Marcos, and Escondido creeks) along the central San Diego coast where low flow rates did not produce sufficient discharge to flush the lagoons they fed (Buena Vista, Agua Hedionda, Batiquitos, and San Elijo lagoons) (Byrd 1998). Drainages along the northern and southern San Diego coastline were larger and flushed the coastal hydrological features they fed, keeping them open to the ocean and allowing for continued human exploitation (Byrd 1998). Peñasquitos Lagoon exhibits dates as late as 2,355 YBP (Smith and Moriarty 1985) and San Diego Bay showed continuous occupation until the close of the Milling Stone Horizon (Gallegos and Kyle 1988). Additionally, data from several drainages in Camp Pendleton indicate a continued occupation of shell midden sites until the close of the period, indicating that coastal sites were not entirely abandoned during this time (Byrd 1998) (Appendix E-1).

By 5,000 YBP, an inland expression of the La Jolla Complex is evident in the archaeological record, exhibiting influences from the Campbell Tradition from the north. These inland Milling Stone Horizon sites have been termed "Pauma Complex" (True 1958; Warren et al. 1961; Meighan 1954). By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack mollusk remains, have greater tool variety (including atlatl dart points, quarry-based tools, and crescentics), and seem to express a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources. Although originally viewed as a separate culture from the coastal La Jolla Complex (True 1980), it appears that these inland sites may be part of a subsistence and settlement system utilized by the coastal peoples. Evidence from the 4S Project in inland San Diego County suggests that these inland sites may represent seasonal components within an annual subsistence round by La Jolla Complex populations (Raven-Jennings et al. 1996). Including both coastal and inland sites of this time period in discussions of the Encinitas Tradition, therefore, provides a more complete appraisal of the settlement and subsistence system exhibited by this cultural complex (Appendix E-1).

More recent work by Sutton has identified a more localized complex known as the Greven Knoll Complex. The Greven Knoll Complex is a redefined northern inland expression of the Encinitas Tradition first put forth by Mark Sutton and Jill Gardener (2010). Sutton and Gardener (2010:25) state that "[t]he early millingstone archaeological record in the northern portion of the interior southern California was not formally named but was often referred to as 'Inland Millingstone,' 'Encinitas,' or even 'Topanga.'" Therefore, they proposed that all expressions of the inland Milling Stone in southern California north of San Diego County be grouped together in the Greven Knoll Complex (Appendix E-1).

The Greven Knoll Complex, as postulated by Sutton and Gardener (2010), is broken into three phases and obtained its name from the type-site Greven Knoll located in Yucaipa, California. Presently, the Greven Knoll Site is part of the Yukaipa't Site (SBR-1000) and was combined with the adjacent Simpson Site. Excavations at Greven Knoll recovered manos, metates, projectile points, discoidal cogged stones, and a flexed inhumation with a possible cremation (Kowta 1969:39). It is believed that the Greven Knoll Site was occupied between 5,000 and 3,500 YBP. The Simpson Site contained mortars, pestles, side-notched points, and stone and shell beads. Based upon the data recovered at these sites, Kowta (1969:39) suggested that "coastal Milling Stone Complexes extended to and interdigitated with the desert Pinto Basin Complex in the vicinity of the Cajon Pass" (Appendix E-1).

Phase I of the Greven Knoll Complex is generally dominated by the presence of manos and metates, core tools, hammerstones, large dart points, flexed inhumations, and occasional cremations. Mortars and pestles are absent from this early phase, and the subsistence economy emphasized hunting. Sutton and Gardener (2010:26) propose that the similarity of the material culture of Greven Knoll Phase I and that found in the Mojave Desert at Pinto Period

sites indicates that the Greven Knoll Complex was influenced by neighbors to the north at that time. Accordingly, Sutton and Gardener (2010) believe that Greven Knoll Phase I may have appeared as early as 9,400 YBP and lasted until about 4,000 YBP (Appendix E-1).

Greven Knoll Phase II is associated with a period between 4,000 and 3,000 YBP. Artifacts common to Greven Knoll Phase II include manos and metates, Elko points, core tools, and discoidals. Pestles and mortars are present; however, they are only represented in small numbers. Finally, there is an emphasis upon hunting and gathering for subsistence (Sutton and Gardener 2010:8) (Appendix E-1).

Greven Knoll Phase III includes manos, metates, Elko points, scraper planes, choppers, hammerstones, and discoidals. Again, small numbers of mortars and pestles are present. Greven Knoll Phase III spans from approximately 3,000 to 1,000 YBP and shows a reliance upon seeds and yucca. Hunting is still important, but bones seem to have been processed to obtain bone grease more often in this later phase (Sutton and Gardener 2010:8) (Appendix E-1).

The shifts in food processing technologies during each of these phases indicate a change in subsistence strategies; although people were still hunting for large game, plant-based foods eventually became the primary dietary resource (Sutton 2011a). Sutton's (2011b) argument posits that the development of mortars and pestles during the middle Holocene can be attributed to the year-round exploitation of acorns as a main dietary provision. Additionally, the warmer and drier climate may have been responsible for groups from the east moving toward coastal populations, which is archaeologically represented by the interchange of coastal and eastern cultural traits (Sutton 2011a) (Appendix E-1).

Late Prehistoric Period (Late Holocene: 1,300 YBP to 1790)

Many Luiseño hold the world view that as a population they were created in southern California; however, archaeological and anthropological data proposes a scientific/archaeological perspective. Archaeological and anthropological evidence suggests that at approximately 1,350 YBP, Takic-speaking groups from the Great Basin region moved into Riverside County, marking the transition to the Late Prehistoric Period. An analysis of the Takic expansion by Sutton (2009) indicates that inland southern California was occupied by "proto-Yuman" populations before 1,000 YBP. The comprehensive, multi-phase model offered by Sutton (2009) employs linguistic, ethnographic, archaeological, and biological data to solidify a reasonable argument for population replacement of Takic groups to the north by Penutians (Laylander 1985). As a result, it is believed that Takic expansion occurred starting around 3,500 YBP moving toward southern California, with the Gabrielino language diffusing south into neighboring Yuman (Hokan) groups around 1,500 to 1,000 YBP, possibly resulting in the Luiseño dialect (Appendix E-1).

Based upon Sutton's model, the final Takic expansion would not have occurred until about 1,000 YBP, resulting in Vanyume, Serrano, Cahuilla, and Cupeño dialects. The model suggests that the Luiseño did not simply replace Hokan speakers, but were rather a northern San Diego County/southern Riverside County Yuman population who adopted the Takic language. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow between A.D. 400 and 600 and the introduction of ceramics. Atlatl darts were replaced by smaller arrow darts, including Cottonwood series points. Other hallmarks of the Late Prehistoric Period include extensive trade networks as far-reaching as the Colorado River Basin and cremation of the dead (Appendix E-1).

Protohistoric Period (Late Holocene: 1790 to Present)

Ethnohistoric and ethnographic evidence indicates that three Takic-speaking groups occupied portions of Riverside County: the Cahuilla, the Gabrielino, and the Luiseño. The geographic boundaries between these groups in pre-and proto-historic times are difficult to place, but the Project is located well within the borders of ethnographic Luiseño territory. This group was a seasonal hunting and gathering people with cultural elements that were very distinct from Archaic Period peoples. These distinctions include cremation of the dead, the use of the bow and arrow, and exploitation of the acorn as a main food staple (Moratto 1984). Along the coast, the Luiseño made use of available marine resources by fishing and collecting mollusks for food. Seasonally available terrestrial resources, including acorns and game, were also sources of nourishment for Luiseño groups. Elaborate kinship and clan systems between the Luiseño and other groups facilitated a wide-reaching trade network that included trade of Obsidian Butte obsidian and other resources from the eastern deserts, as well as steatite from the Channel Islands (Appendix E-1).

According to Charles Handley (1967), the primary settlements of Late Prehistoric Luiseño Indians in the San Jacinto Plain were represented by Ivahand Soboba near Soboba Springs, Jusipah near the town of San Jacinto, Ararah in Webster's Canyon en route to Idyllwild, Pahsitha near Big Springs Ranch southeast of Hemet, and Corova in Castillo Canyon. These locations share features such as the availability of food and water resources. Features of this land use include petroglyphs and pictographs, as well as widespread milling, which is evident in bedrock and portable implements. Groups in the vicinity of the Project site, neighboring the Luiseño, include the Cahuilla and the Gabrielino. For more information on the ethnographic data for these groups, see Appendix E-1.

Ethnohistoric Context

Ethnohistoric Period (1769 to Present)

Traditionally, the history of the state of California has been divided into three general periods: the Spanish Period (1769 to 1821), the Mexican Period (1822 to 1846), and the American Period (1848 to present) (Caughey 1970). The American Period is often further subdivided into additional phases: the nineteenth century (1848 to 1900), the early twentieth century (1900 to 1950), and the Modern Period (1950 to present) (Appendix E-1).

European exploration along the California coast began in 1542 with the landing of Juan Rodriguez Cabrillo and his men at San Diego Bay. Sixty years after the Cabrillo expeditions, an expedition under Sebastian Viscaíno made an extensive and thorough exploration of the Pacific coast. The early European voyages observed Native Americans living in villages along the coast but did not make any substantial, long-lasting impact. At the time of contact, the Luiseño population was estimated to have ranged from 4,000 to as many as 10,000 individuals (Bean and Shipek 1978; Kroeber 1976) (Appendix E-1).

The historic background of the region that includes the Project APE began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations, as well as expanding the knowledge of and access to new resources in the region (Brigandi 1998). As a result, by the late eighteenth century, a large portion of southern California was overseen by Mission San Luis Rey (San Diego County), Mission San Juan Capistrano (Orange County), and Mission San Gabriel (Los Angeles County), that began colonization of the region and surrounding areas (Chapman 1921) (Appendix E-1).

Up until this time, the only known way to feasibly travel from the Mexican State of Sonora to Alta California was by sea. In 1774, Juan Bautista de Anza, an army captain at Tubac, requested and was given permission by the governor

of Sonora to establish an overland route from Sonora to Monterey (Chapman 1921). In doing so, Juan Bautista de Anza passed through Riverside County and described the area in writing for the first time (Caughey 1970; Chapman 1921). In 1797, Father Presidente Lausen (of Mission San Diego de Alcalá), Father Norberto de Santiago, and Corporal Pedro Lisalde (of Mission San Juan Capistrano) led an expedition through southwestern Riverside County in search of a new mission site to establish a presence between San Diego and San Juan Capistrano (Engelhardt 1921). Their efforts ultimately resulted in the establishment of Mission San Luis Rey in Oceanside, California (Appendix E-1).

Each mission gained power through the support of a large, subjugated Native American workforce. As the missions grew, livestock holdings increased and became increasingly vulnerable to theft. In order to protect their interests, the southern California missions began to expand inland to try and provide additional security (Beattie and Beattie 1939; Caughey 1970). In order to meet their needs, the Spaniards embarked on a formal expedition in 1806 to find potential locations within what is now the San Bernardino Valley. As a result, by 1810, Father Francisco Dumetz of Mission San Gabriel had succeeded in establishing a religious site, or capilla, at a Cahuilla rancheria called Guachama (Beattie and Beattie 1939). San Bernardino Valley received its name from this site, which was dedicated to San Bernardino de Siena by Father Dumetz. The Guachama rancheria was located in present-day Bryn Mawr in San Bernardino County (Appendix E-1).

These early colonization efforts were followed by the establishment of estancias at Puente (circa 1816) and San Bernardino (circa 1819) near Guachama (Beattie and Beattie 1939). These efforts were soon mirrored by the Spaniards from Mission San Luis Rey, that in turn established a presence in what is now Lake Elsinore, Temecula, and Murrieta (Chapman 1921). The indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions (Pourade 1961). Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order (Cook 1976) (Appendix E-1).

Mexico achieved independence from Spain in 1822 and became a federal republic in 1824. As a result, both Baja and Alta California became classified as territories (Rolle 1969). Shortly thereafter, the Mexican Republic sought to grant large tracts of private land to its citizens to begin to encourage immigration to California and to establish its presence in the region. Part of the establishment of power and control included the desecularization of the missions circa 1832. The resulting land grants, known as “ranchos,” covered expansive portions of California and by 1846, more than 600 land grants had been issued by the Mexican government. Rancho Jurupa was the first rancho to be established and was issued to Juan Bandini in 1838. Although Bandini primarily resided in San Diego, Rancho Jurupa was located in what is now Riverside County (Pourade 1963). A review of Riverside County place names quickly illustrates that many of the ranchos in Riverside County lent their names to present-day locations, including Jurupa, El Rincon, La Sierra, El Sobrante de San Jacinto, La Laguna (Lake Elsinore), Santa Rosa, Temecula, Pauba, San Jacinto Nuevo y Potrero, and San Jacinto Viejo (Gunther 1984). As was typical of many ranchos, these were all located in the valley environments within western Riverside County (Appendix E-1).

The treatment of Native Americans grew worse during the Rancho Period. Most of the Native Americans were forced off of their land or put to work on the now privately-owned ranchos, most often as slave labor. In light of the brutal ranchos, the degree to which Native Americans had become dependent upon the mission system is evident when, in 1838, a group of Native Americans from Mission San Luis Rey petitioned government officials in San Diego to relieve suffering at the hands of the rancheros:

> We have suffered incalculable losses, for some of which we are in part to be blamed for because many of us have abandoned the Mission … We plead and beseech you … to grant us a Rev. Father

> for this place. We have been accustomed to the Rev. Fathers and to their manner of managing the duties. We labored under their intelligent directions, and we were obedient to the Fathers according to the regulations, because we considered it as good for us. (Brigandi 1998:21) (Appendix E-1).

Native American culture had been disrupted to the point where they could no longer rely upon prehistoric subsistence and social patterns. Not only does this illustrate how dependent the Native Americans had become upon the missionaries, but it also indicates a marked contrast in the way the Spanish treated the Native Americans compared to the Mexican and United States ranchers. Spanish colonialism (missions) is based upon utilizing human resources while integrating them into their society. The Mexican and American ranchers did not accept Native Americans into their social order and used them specifically for the extraction of labor, resources, and profit. Rather than being incorporated, they were either subjugated or exterminated (Cook 1976) (Appendix E-1).

By 1846, tensions between the United States and Mexico had escalated to the point of war (Rolle 1969). In order to reach a peaceful agreement, the Treaty of Guadalupe Hidalgo was put into effect in 1848, which resulted in the annexation of California to the United States. Once California opened to the United States, waves of settlers moved in searching for gold mines, business opportunities, political opportunities, religious freedom, and adventure (Rolle 1969; Caughey 1970). By 1850, California had become a state and was eventually divided into 27 separate counties. While a much larger population was now settling in California, this was primarily in the central valley, San Francisco, and the Gold Rush region of the Sierra Nevada mountain range (Rolle 1969; Caughey 1970). During this time, southern California grew at a much slower pace than northern California and was still dominated by the cattle industry established during the earlier rancho period. However, by 1859, the first United States Post Office in what would eventually become Riverside County was set up at John Magee's store on the Temecula Rancho (Gunther 1984) (Appendix E-1).

During the same decade, circa 1852, the Native Americans of southern Riverside County, including the Luiseño and the Cahuilla, thought they had signed a treaty resulting in their ownership of all lands from Temecula to Aguanga east to the desert, including the San Jacinto Valley and the San Gorgonio Pass. The Temecula Treaty also included food and clothing provisions for the Native Americans. However, Congress never ratified these treaties, and the promise of one large reservation was rescinded (Brigandi 1998) (Appendix E-1).

With the completion of the Southern Pacific Railroad in 1869, southern California saw its first major population expansion. The population boom continued circa 1874 with the completion of connections between the Southern Pacific Railroad in Sacramento to the transcontinental Central Pacific Railroad in Los Angeles (Rolle 1969; Caughey 1970). The population influx brought farmers, land speculators, and prospective developers to the region. As the Jurupa area became more and more populated, circa 1870, Judge John Wesley North and a group of associates founded the city of Riverside on part of the former rancho (Appendix E-1).

Although the first orange trees were planted in Riverside County circa 1871, it was not until a few years later when a small number of Brazilian navel orange trees were established that the citrus industry truly began in the region (Patterson 1971). The Brazilian navel orange was well suited to the climate of Riverside County and thrived with assistance from several extensive irrigation projects. At the close of 1882, an estimated half a million citrus trees were present in California. It is estimated that nearly half of that population was in Riverside County. Population growth and 1880s tax revenue from the booming citrus industry prompted the official formation of Riverside County in 1893 out of portions of what was once San Bernardino County (Patterson 1971) (Appendix E-1).

Shortly thereafter, with the start of World War I, the United States began to develop a military presence in Riverside County with the construction of the March AFB. During World War II, Camp Haan and Camp Anza were constructed

in what is now the current location of the National Veteran's Cemetery. In the decades that followed, populations spread throughout the county into Lake Elsinore, Corona, Norco, Murrieta, and Wildomar. However, a significant portion of the county remained largely agricultural well into the 1970s. Following the 1970s, Riverside saw a period of dramatic population increase as the result of new development, more than doubling the population of the county with a population of over 1.3 million residents (Patterson 1971) (Appendix E-1).

Historic Context

General History of the City of Riverside

The city of Riverside was officially formed in 1870, primarily as a result of the vision of Judge John Wesley North. North and a group of investors formed the Southern California Colony Association in hopes of founding a viable agricultural colony in southern California (Patterson 1971). Although initially focused upon the Los Angeles region, their gaze shifted to the banks of the Santa Ana River in Rancho Jurupa where land was readily available for purchase from the California Silk Association (Stonehouse 1965). North became part of the community, providing the initial survey of the new colony and helping to facilitate its overall development. The community was originally dubbed "Yurupa," but the moniker was revised to "Riverside" at the close of 1870 (Stonehouse 1965; Patterson 1971). Although North had originally envisioned a diversified farming community growing a wide range of produce, including "oranges, lemons, figs, English walnuts, olives, almonds, raisin grapes, wine grapes, peanuts, sweet potatoes, sorghum and sugar beets" (Stonehouse 1965), the drive of the citrus industry by the 1880s and the introduction of the navel orange would eventually lead to a more citrus-focused industry in Riverside (Appendix E-1).

The expansion of the citrus industry in Riverside would have never been possible without the canal system, which was established in stages between 1870 and 1888. In an effort to feed the growing citrus industry, the first of these irrigation projects was initiated by the Southern California Colony Association and the California Silk Association in 1870 (Bailey 1961). This first canal system was followed by additional canals developed by the Riverside Canal Company and the Riverside Water Company in 1886 (Bailey 1961). With the establishment of a third large canal (the Gage Canal) constructed between 1882 and 1888, a constant and reliable water source had been established, feeding some 20,000 acres of navel orange groves by 1885 (Guinn 1907; Brown 1985) (Appendix E-1).

The growth of Riverside was further fueled by the development of the railroad system across the United States, giving Riverside the ability to ship citrus nationwide. As a result of the success of the navel orange, the establishment of canal systems, the advent of rail transportation, and the subsequent associated packing and cold storage industries, by 1885, Riverside had become the wealthiest city per capita in the United States (Patterson 1971) (Appendix E-1).

In early 1917, the United States entered World War I, necessitating the construction of additional military bases across the country to facilitate the war efforts. Frank Miller, owner of the Mission Inn, and other Riverside residents successfully petitioned the United States government to expand Alessandro Flying Training Field, a nearby airstrip used by private pilots for cross-country flights, for military use (March ARB 2010). "On March 20, 1918, Alessandro Flying Training Field became March Field, named in honor of Second Lieutenant Peyton C. March…who had been killed in a flying accident in Texas the previous month" (March ARB 2010). However, March Field saw only limited use, as World War I ended on November 11, 1918, shortly after the base was established (Patterson 1971). Between World War I and World War II, March Field was actively used for pilot training and tactical unit repair and activation (March ARB 2010). With the advent of World War II, March Field grew in size and importance, housing troops from around the United States and further expanding the city's economy and population, with many service members choosing to settle in the city and the region in general. In 1941, March Field became March Army Air

Field, in 1942, it became March Army Air Base, and in 1947, it became March Army Air Force Base (to reflect the establishment of the United States Air Force). In addition, during World War II, Camp Anza and Camp Haan were constructed, with the former located in the western part of the city of Riverside and the latter just southeast of the Project APE (Appendix E-1).

Throughout the Cold War, the base continued to expand. In 1949, the base was placed under the Strategic Air Command (SAC) jurisdiction and the 15th Air Force's headquarters was assigned to the base. "For the remainder of the Cold War, SAC defined March AFB's role in the nation's defense. SAC was the striking force of the Air Force, the deterrent to the perceived Soviet threat, and March AFB played an integral part of that role in the years to come" (William Manley Consulting and Earth Tech 1995). The March AFB Cold War-era Weapons Storage Area (WSA) is located within the Project APE. In 1996, the base became the March Air Reserve Base (ARB) (March Field Air Museum n.d.). Although the official name changed multiple times, residents have continued to refer to it as "March Field" (Gunther 1984) (Appendix E-1).

After the end of World War II, as with the rest of Riverside County, a significant portion of the City of Riverside remained largely agricultural well into the 1970s. However, the city did enjoy some diversification with the introduction of a sizable manufacturing sector during this period. Following the 1970s, the city of Riverside and Riverside County, as a whole, saw a period of dramatic population increase as the result of new development, with the city growing to a population of over 300,000 residents by 2010 (U.S. Census Bureau 2010). (Appendix E-1).

March Air Force Base

In early 1917, the United States entered World War I, necessitating the construction of additional military bases across the country to contribute to the war effort. During that time, March AFB operated as a small temporary United States Army Air Corps facility (Miksell and Wee 1996). However, March AFB only saw limited use, as World War I ended on November 11, 1918, shortly after the base was established (Patterson 1971). The base was subsequently deactivated and dismantled for the construction of what is now called the March Field Historic District in the mid-1920s. The plans for the new base were heavily influenced by emerging principles in the field of city planning that favored a comprehensive approach to urban design, which coordinates diverse aspects of the built environment such as architecture, landscape, transportation, communal areas, etc. The reconstruction of the base was heavily influenced by the work of California architect Myron Hunt, who established a Mission Revival theme for the base, and New York City planner George B. Ford, who designed the base's triangular plan (Schroth 1998). (Appendix E-2).

After its reconstruction and before World War II, the base was actively used for pilot training and tactical unit repair and activation (March ARB 2010). With the advent of World War II, it grew in size and importance, housing troops from around the United States and further expanding the city of Riverside's economy and population, with many service members choosing to settle in the region. During World War II, a massive construction program was undertaken at March AFB and numerous barracks, warehouses, and supply and utility buildings were constructed using standardized designs provided by the United States military (Schroth 1998). In addition, the runways and airfield facilities were improved due to the increasing importance of the United States Air Force and Camp Haan, a new anti-aircraft artillery cantonment, laid out west of the base in 1940 (Johnson et al. 1991 in Schroth 1998). Construction of Camp Haan led to increased traffic at both March AFB and Camp Haan so much so that realignment of Highway 395 was required. Camp Haan was not part of March AFB at the time of its construction; however, it was still involved in the social and military life of the base and was absorbed by the base following World War II. Although March AFB was significantly expanded during World War II, it remained a training center during the greater part of the war (Johnson et al. 1991). (Appendix E-2).

While defense spending was drastically decreased in the post-World War II period, the United States Air Force continued to be one of the most important components of the United States military following the Cold War. While the United States Air Force used and reorganized the existing March AFB facilities, new facilities with up-to-date technology were added to those bases used by the Air Force (Schroth 1998). Throughout the Cold War, March AFB continued to expand. In 1949, it was placed under Strategic Air Command (SAC), who was responsible for nuclear warfare and its deterrence (Mikesell and Wee 1996). As a result, March AFB became the "deterrent to the perceived Soviet threat and played an integral part of that role in the years to come" (Wessel 1995). In the 1950s and 1960s, March AFB served as the headquarters of the Fifteenth Air Force (15 AF), which played an important role in the development and management of the SAC's Intercontinental Ballistic Missile (ICBM) force (Mikesell and Wee 1996). At that time, 15 AF at March AFB controlled over 10 bases throughout the West, holding jurisdiction over 75% of SAC's ICBMs throughout the western United States (Wessel 1995). (Appendix E-2).

During the Vietnam War, as March AFB served as the 15 AF headquarters, much of the planning and deployment of SAC forces to Southeast Asia took place at the base. With the relocation of the air refueling deployment operation from Castle AFB in northern California to March AFB in 1972, March AFB began to play an increasingly important role in the conduct of the war. In the period after the war, March AFB experienced many budget and personnel cuts. The number of employees at the base was reduced by 20% and some personnel was moved to inland bases. With the end of the Cold War, SAC was disestablished in 1992. March AFB then came under the command of Air Mobility Command and converted from an active-duty base to a reserve base. The 15 AF headquarters were relocated to Travis, California in 1993 (Wessel 1995). (Appendix E-2).

In 1996, the base was officially renamed March ARB and was significantly reduced in land area. Although the official name changed multiple times, residents often refer to it as "March Field" (Gunther 1984). Currently, March ARB is solely located east of I-215. The eastern side includes housing, limited recreational facilities, a base health clinic, runways, administrative offices, hangars, and other flight-related operational structures. The western side of the former March Air Force Base, west of I-215, includes approximately 1,200 acres of redeveloped former base property, known as the Meridian Business Park, a golf course (owned by the Department of Veteran's Affairs), a cemetery, open space, and the Weapons Storage Area.

Ammunition and Explosives Storage Structures

Ammunition and explosive storage structures, which are also referred to as magazines, are essential elements of any military base. Since these structures are designed to contain highly explosive munitions in an area separate from daily military activities, utilitarian forms are observed in their construction (Murphey et al. 2000). There was no standardized approach to the storage of ammunition and explosives prior to the mid-1920s. The explosive material was stored in aboveground warehouses built of stone and/or brick, which provided comparably safer storage spaces than timber buildings (Murphey et al. 2000).

However, these structures did not completely eliminate the risks, as evidenced by the explosion at Lake Denmark, New Jersey in 1926, where one explosion triggered a chain reaction destroying everything within a one-mile radius and causing 21 fatalities. This explosion resulted in 47 million dollars in damages (Mersereau 2014). (Appendix E-2).

After the Lake Denmark disaster, it became apparent that storage of ammunition and explosives required a different approach. New designs for explosives storage were developed to ameliorate the shortcomings of the previously used structures. This new type of storage building was popularly known as an igloo. While the overall construction of the igloo-type magazines remained the same, some design features were revised over the years, decreasing the use of the construction material and the land area (Murphey et al. 2000). Howdyshell ([1981] in

Murphey et al. 2000:1) asserts that the decrease of the land used for these magazines was especially significant in Europe, where land constraints posed a special problem. (Appendix E-2).

These igloos were commonly covered with earth and featured concrete building material. Although the floor of the storage structure was at or above the ground level, because the magazine was covered with earth on three sides, it was considered to be underground. The structure underneath the earth-covered portion was barrel-arched and constructed of reinforced concrete. The use of the barrel-arch design directed the force of a potential explosion upward, rather than outward, decreasing the chance of a chain explosion. The earth on the structure was designed to dampen the force of the explosion. There are also limits to the amount of explosive materiel stored in each igloo magazine. The thermal insulation quality of concrete and earth eliminates the risk of high temperatures, both reducing potential explosions and deterioration of munitions. The earth cover of these structures provided camouflage to these valuable resources (Murphey et al. 2000). (Appendix E-2).

The precedent of the igloo-designed magazines is not clear, as this design started to simultaneously appear in several different geographic locations in the 1930s. Earlier examples were extant in the earlier United States Army and Navy bases. These earlier examples featured flat concrete roofs instead of concrete arches (Fine and Remington 1972; Reed 1995 in Murphey et al. 2000). As mentioned previously, the barrel-vaulted design of the later examples directs the explosion upward, more specifically along the narrow ridge of the arch, therefore reducing the radius of effect. The design of the earlier flat-roofed examples, on the other hand, causes an unpredictable explosion pattern, increasing the risk of nearby sympathetic explosions (Explosives Safety Board 1997). (Appendix E-2).

Most of the ammunition and explosive magazines were constructed during and after World War II. The construction of these storage structures started as a part of the nation's large-scale mobilization during World War II (Murphey et al. 2000). From 1939 to 1945, the United States government spent hundreds of millions of dollars to construct 77 new military industrial facilities and 16 major ordnance depots. After the war, many of the military facilities were either closed or were placed in layaway status in case a future need arises. However, due to the abundance of ordnance and raw materials that were no longer needed, the storage depots remained opened and continued to be used for storing ammunition (Kuranda et al. 2009). (Appendix E-2).

With the invasion of South Korea in June 1950, some of the production plants that were closed at the end of World War II were reopened. At that time, the development of weapons technology allowed for the production of extremely powerful explosives, which required a need for enhanced logistical support. The artillery, anti-aircraft guns, and mortars, which comprise the bulk of the munitions, began to be replaced by guided missiles and rockets. Munitions storage structures constructed before and during World War II continued to be used for the storage of these newer and larger weapons. Specialized lifting devices were developed to safely maneuver these larger missiles (Kuranda et al. 2009). (Appendix E-2).

The design of the earth-covered magazines also changed in the period following the Korean War. Although the general design and the arched-roof structure of the igloos remained the same, wider openings with double-leaf steel doors began to be featured to facilitate the transportation of larger munitions. Older magazines were modified with the installation of access ramps and wider doors to allow the storage of heavier munition. The most radical change in the design of the igloos took place in the mid-1950s. In 1954, the Chief of Ordnance recommended a new igloo design named "Stradley" after its designer. This design, which was also known as the yurt, featured vertical side walls, an elliptical arch for the roof, and large sliding doors. The vertical walls of this design created additional storage space and allowed the munitions to be stacked vertically (Kuranda et al. 2009). (Appendix E-2).

Large-scale construction of munitions storage structures slowed down after the 1960s, but construction of other military-related buildings continued. With the end of the Cold War approaching and following the end of the Vietnam War in 1975, the United States military began to greatly reduce the amount of ordnance-related construction. During this time, the design and materials used in the construction of the igloo magazines were standardized. These standardized structures lacked ornamentation and the most important construction and design criterion was safety (Kuranda et al. 2009). (Appendix E-2).

Records Search/Archival Research

An archaeological records search for a one-mile radius around the Project APE was requested from the EIC at UCR, the results of which were reviewed by Brian F. Smith and Associates, Inc. The EIC search results identified 241 resources within one mile of the APE. The records search indicated that eight of the previously recorded resources are within or directly adjacent to the APE. In all, the prehistoric resources within one mile of the APE consist of 16 prehistoric isolates and 200 prehistoric bedrock milling sites, five of which contained associated prehistoric artifacts, one prehistoric artifact scatter, and one multicomponent site containing a prehistoric milling site and a historic residence. The historic resources consist of 11 residences, one historic elementary school, one historic ranch, three historic foundation sites, two historic railroad alignments, two historic isolates, and five historic trash scatters. The remaining site is multicomponent and consists of a prehistoric milling site and a historic residence. Of the eight resources recorded within or directly adjacent to the APE, seven are prehistoric bedrock milling sites (CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819), and one is a prehistoric isolate (P-33-012662) (Appendix E-1).

Records relating to the ownership and developmental history of the Project were also sought to identify any associated potential historic or architectural significance. Records located at the BFSA research library, and the Riverside County Accessor/Recorder/Clerk were assessed for information regarding the structures. (Appendix E-2).

Previously Conducted Cultural Resource Studies

In total, 87 previous studies were identified within a one-mile radius of the Project area. According to the records search, 14 of the previous studies include all or portions of the APE (as shown in Table 4.4-1). Two of the previous studies were tied to focused linear pipeline surveys and do not directly address the current APE (Drover 1986; Drover 1989) (Appendix E-1).

Table 4.4-1. Previous Studies within the Project APE's Vicinity

Citation	Year Published	Title
Drover, Christopher	1986	Environmental Impact Evaluation: An Archaeological Assessment of the Southeastern 69 KV Loop-Line and Substations, Riverside County, California. Albert A. Webb Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.
Drover, Christopher	1989	An Archaeological Assessment of 1720' P.Z. Tank Site and Associated Pipeline Easement. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Table 4.4-1. Previous Studies within the Project APE's Vicinity

Citation	Year Published	Title
Tetra Tech, Inc.	1990	Cultural Resources Investigations for a Proposed Realignment of Facilities from Los Angeles Air Force Base to March Air Force Base, Riverside County, California. Tetra Tech, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.
William Manley Consulting and Earth Tech	1995	Historic Building Inventory and Evaluation, March Air Force Base, Riverside County, California. Michael Brandman Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.
JPR Historical Consulting Services	1996	Cultural Resource Management Plan for March AFB, California. JRP Historical Consulting Services and ASM Affiliates, Inc. Unpublished report on file at the March Joint Powers Authority, Riverside, California.
McDonald, Meg and Barb Giacomini	1996	An Intensive Survey of Approximately 2,500 Acres of March Air Force Base, Riverside County, California. ASM Affiliates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.
Urban Futures, Inc.	1996	Environmental Impact Report for the March Air Force Base Redevelopment Project. Urban Futures, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.
Pritchard Parker, Mari A., Heather R. Puckett, David Maxwell, Michael Hogan, and Ricardo P. Montijo	1997	Archaeological Testing at Six Sites on March Air Force Base, Riverside County, California. Earth Tech, Inc. and Statistical Research, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.
Schroth, Adella B.	1998	Review of Traditional Cultural Properties and Ethnography of the March Joint Powers Authority Planning Area. LSA Associates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.
March Joint Powers Authority	1999	Master Environmental Impact Report for the General Plan of the March Joint Powers Authority. March Joint Powers Authority. Unpublished report on file at the March Joint Powers Authority, Riverside, California.
Dice, Michael and Jennifer Sanka	2006	Phase I Archaeological Assessment, Phase II Archaeological Assessment (Testing), and Paleontological Records Review Kaliber 52 Project, Riverside County, California. Michael Brandman Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.
Austerman, Gina and Riordan Goodwin	2014	Cultural Resources Assessment and Archaeological Testing, Alessandro Commerce Center Project, Riverside County, California. LSA Associates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.
Fairbanks, Dan	2016	Initial Study for the Proposed Meridian West Campus-Lower Plateau Project Environmental Impact Report in the March Joint Powers Authority Land Use Jurisdiction, Unincorporated Riverside County, California. Dudek. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Table 4.4-1. Previous Studies within the Project APE's Vicinity

Citation	Year Published	Title
Tang, Bai "Tom" and Michael Hogan	2017	West Campus-Lower Plateau Meridian Business Park Project. CRM Tech. Unpublished report on file at the March Joint Powers Authority, Riverside, California.

Source: Appendix E-1

Of the archaeological sites previously identified within the APE, all have been subjected to some level of study. Similarly, previously identified historical resources were determined to be ineligible for inclusion in the National Register of Historic Places (NRHP). For more information on the findings of previously conducted cultural studies, see Appendix E-1.

Moreover, a review of historic sources was conducted, including the NRHP Index, the Office of Historic Preservation Archaeological Determinations of Eligibility and Directory of Properties in the Historic Property Data File, as well as historic USGS maps and aerial photographs. These sources did not indicate the presence of any additional historic or prehistoric resources within the Project APE. However, based upon the records search and literature results, there is a high potential to discover both prehistoric and historic resources within the APE beyond the already recorded sites. Based upon the information compiled from the previous studies, CA-RIV-5421, elements of CA-RIV-5425 (later recorded as CA-RIV-8093 and RIV-11,923), CA-RIV-5426, and CA-RIV-5451 have previously been subjected to archaeological testing and do not require any further archaeological work. Site CA-RIV-5421 was previously tested and evaluated as not eligible for inclusion in the NRHP, while CA-RIV-8093, CA-RIV-11,923, CA-RIV-5426, and CA-RIV-5451 were tested in conjunction with an industrial warehouse project situated within the northern extent of the APE. Sites CA-RIV-4067, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819, located within the APE, and CA-RIV-4068, located adjacent to the APE, have also been previously evaluated as not eligible for inclusion in the NRHP; however, the findings were made without thorough documentation of the resource or significance testing.

The APE also contains the Cold War-era March AFB WSA. The approximately 200-acre WSA contains a total of 16 bunker igloos, six buildings, and a water tank constructed during the 1950s and 1960s. Based on aerial photographs, most of the WSA located on the central plateau was constructed between 1953 and 1962. However, as early as 1948, storage igloos are visible east of the 1953 development and visible through 1967. By 1978, it appears that the older igloos had all been removed. The remaining bunkers are generally trapezoidal in shape and built into the surrounding terrain while the associated buildings tend to be constructed of cinderblock. In 1995, the complex was studied in a Historic Building Inventory and Evaluation study by William Manley Consulting and Earth Tech, and was initially considered potentially eligible as a district of properties for their design and engineering, and their critical role in supporting Cold War missions at March AFB (William Manley Consulting and Earth Tech 1995). However, upon further review and analysis, it was evaluated as not eligible for inclusion in the NRHP, as it was determined that the WSA was not an outstanding representative of a SAC property type built nationwide, and the State Historic Preservation Office (SHPO) concurred with the findings (William Manley Consulting and Earth Tech 1995; MJPA 1999).

Native American Consultation

NAHC Sacred Lands File Search

Brian F. Smith and Associates, Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC) to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance are present within one mile of the APE. The SLF search results did not indicate the presence of any sacred sites or locations of religious or ceremonial importance within the APE.

At the direction of March JPA, Brian F. Smith and Associates, Inc. contacted the Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians to solicit their involvement with the proposed Project. A site visit with representatives from both tribes and March JPA was conducted on February 16, 2022. The local tribal governments suggested the presence of a Traditional Cultural Property (TCP) and potentially a Traditional Cultural Landscape (TCL) within the vicinity of or overlapping the APE. However, the recorded boundary of a potential TCP/TCL was not fully identified or formally presented to Brian F. Smith and Associates, Inc. Since the boundary of the potential TCP/TCL is unknown, effects cannot be determined without direct consultation with the local Native American tribes through government-to-government consultation. An overview of the Assembly Bill 52 and Senate Bill 18 consultations are discussed below (Appendix E-1).

Assembly Bill 52 Consultation

The Project is subject to compliance with Assembly Bill (AB) 52 (California Public Resources Code [PRC], Section 21074), which requires consideration of impacts to Tribal Cultural Resources (TCRs) as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the proposed Project. All NAHC-listed California Native American Tribal representatives that have requested Project notification pursuant to AB 52 were sent letters by March JPA on November 10, 2021 (see Table 4.4-2). The letters contained a Project description, outline of AB 52 timing, request for consultation, and contact information for the appropriate lead agency representative. The tribal consultation window under AB 52 closed on December 12, 2021. On November 17, 2021, March JPA received a letter requesting consultation with the Soboba Band of Luiseño Indians and identifying that although the Project site is outside their existing reservation, the Project area does fall within the bounds of their Tribal Traditional Use Areas and is considered extremely sensitive by the people of Soboba. The consultation meeting with the Soboba Band of Luiseño Indians was held on December 9, 2021. On December 21, 2021, March JPA provided an exhibit identifying the location of cultural resources on the grading plan and an exhibit showing the location of the resources on an aerial map to the Soboba Band of Luiseño Indians.

On November 24, 2021, March JPA received a request for consultation from the Pechanga Band of Luiseño Indians, which stated that the Project site is within a Traditional Cultural Property and that it contains additional TCRs. The consultation meeting with the Pechanga Band of Luiseño Indians was held on December 20, 2021. On January 19, 2022, March JPA provided a supplemental resource map to Pechanga Band of Luiseño Indians identifying resources in proximity to Brown Street.

On January 11, 2022, March JPA received a request from the Agua Caliente Band of Cahuilla Indians for the cultural report, site records, search from the information center and survey records. Consultation was not requested, and all information was transmitted to the Agua Caliente Band of Cahuilla Indians on January 19, 2022.

After additional communications between March JPA, the Soboba Band of Luiseño Indians, and Pechanga Band of Luiseño Indians during January 2022, it was determined that a site walk with both tribes would be scheduled for February 16, 2022. During the walk, it was agreed that March JPA would issue a right of entry for the tribes to survey additional portions of the Project area, especially at the southeast portion of the Conservation Easement, and the developer would mark the limits of the grading and right-of-way, especially the eastern portion where the Cactus Avenue extension was planned in areas proximate to Native American resources. A right-of-entry form was prepared for additional surveying by the Pechanga Band of Luiseño Indians in coordination with the Soboba Band of Luiseño Indians. On July 6, 2022, March JPA provided an exhibit to the tribes showing how resources would be retained in place, buried, or moved to the adjacent open space area. A field meeting with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians was held on September 15, 2022, to discuss the disposition of the resources. It was agreed that the consultant would prepare a draft Testing Plan for review to determine the boundaries of four resources sites, the developer would stake the limits of the Cactus Avenue and Barton Street grading and right-of-way limits, the timing of the staking would be coordinated with the tribes so the tribes would walk the Project area after staking, and the incorporation of any geospatial data provided by the tribes for resources. On October 11, 2022, March JPA provided the draft Testing Plan to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians, and confirmed that once the Testing Plan was approved, the developer would stake the limits of grading along Cactus Avenue and Barton Street. The draft Testing Plan is currently in review with the tribes. Documents related to AB 52 consultation are on file with March JPA.

Senate Bill 18 Consultation

According to Senate Bill (SB) 18 (Government Code Section 65352.3), March JPA has a responsibility to initiate consultation with tribes/groups listed on the California NAHC's official SB 18 contact list for amendment of its General Plan or any Specific Plan. SB 18 requires March JPA to send a letter to each contact on the NAHC's SB 18 list, extending an invitation for consultation. Tribes have 90 days from receipt of the letter to request consultation. March JPA must also send a notice to all contacts at least 45 days prior to adopting the amended General Plan/Specific Plan, as well as a third notice 10 days prior to any public hearing regarding the General Plan/Specific Plan amendment. March JPA sent notification of the proposed Project to all California Native American tribal representatives that have requested Project notifications pursuant to SB 18 and that are on file with the NAHC as being traditionally or culturally affiliated with the geographic area on December 18, 2021 (see Table 4.4-2). These notification letters included a Project description and inquired if the tribe would like to consult on the proposed Project. On February 16, 2022, March JPA received a request for consultation from the Rincon Band of Luiseño Indians, which was held on April 12, 2022. The Rincon Band of Luiseño Indians requested to stay informed on the Project but deferred to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians regarding all monitoring and details of the Project. A mitigation plan identifying resources that could be avoided, remain in place, relocated to the conservation area, and resources that could be capped and buried in place, was provided to the Rincon Band of Luiseño Indians on July 7, 2022. On August 18, 2022, March JPA invited the Rincon Band of Luiseño Indians to the scheduled September 15, 2022, site walk with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians to discuss the disposition of resources, and on September 10, 2022, the Rincon Band of Luiseno Indians deferred the disposition of resources to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians. Additionally, the Quechan Tribe of the Fort Yuma Reservation identified in a letter dated December 20, 2021, that they have no comments regarding the Project, and they defer to more local tribes and support their decisions on the projects. Documents related to SB 18 consultation are on file with March JPA.

Table 4.4-2. Assembly Bill 52/Senate Bill 18 Native American Heritage Commission–Listed Native American Contacts

Native American Tribal Representatives	Tribe
Patricia Garcia	AB-52: Agua Caliente Band of Cahuilla Indians
Ebru Ozdil	AB-52: Pechanga Band of Luiseño Indians
Joseph Ontiveros	AB-52: Soboba Band of Luiseño Indians
Patricia Garcia-Plotkin	SB-18: Agua Caliente Band of Cahuilla Indians
Jeff Grubbe	SB-18: Agua Caliente Band of Cahuilla Indians
Amanda Vance	SB-18: Augustine Band of Cahuilla Indians
Doug Welmas	SB-18: Cabazon Band of Mission Indians
Daniel Salgado	SB-18: Cahuilla Band of Indians
Ray Chapparosa	SB-18: Los Coyotes Band of Cahuilla Indians
Robert Martin	SB-18: Moronga Band of Mission Indians
Ann Brierty	SB-18: Moronga Band of Mission Indians
Shasta Gaughen	SB-18: Pala Band of Mission Indians
Mark Macarro	SB-18: Pechanga Band of Luiseño Indians
Jill McCormick	SB-18: Quechan Tribe of the Fort Yuma Reservation
Joseph Hamilton	SB-18: Ramona Band of Luiseño Indians
Bo Mazzetti	SB-18: Rincon Band of Luiseño Indians
Cheryl Madrigal	SB-18: Rincon Band of Luiseño Indians
Lovina Redner	SB-18: Santa Rosa Band of Cahuilla Indians
Joseph Ontiveros	SB-18: Soboba Band of Luiseño Indians
Isaiah Vivanco	SB-18: Soboba Band of Luiseño Indians
Thomas Tortez	SB-18: Torres-Martinez Desert Cahuilla Indians

Survey Methods, Evaluations, and Results

The archaeological survey of the APE was conducted on July 26 and 27, 2021. The survey included an intensive pedestrian reconnaissance consisting of a series of parallel transects spaced at approximately 15-meter intervals. The entire 400-acre APE was included in the survey process. Photographs were taken to document Project conditions during the survey (see Appendix E-1). Ground visibility was moderate to poor throughout the APE due to areas containing dense vegetation and the previous military development. All rodent spoil piles and alluvial cuts were closely inspected for evidence of archaeological materials. No additional constraints were encountered during the field survey. As a result, the survey confirmed the presence of six previously recorded prehistoric bedrock milling sites (CA-RIV-4067, CARIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819), which all appeared to be in the same condition as when they were last recorded. The prehistoric isolate, P-33-012662 was not identified in its previously recorded location, however, eight additional prehistoric bedrock milling sites (Temp-2, Temp-3, and Temp-9 through Temp-15) were identified within or directly adjacent to the Project APE (Appendix E-1).

Brian F. Smith and Associates, Inc. returned to the Project APE on June 6 and 7, 2022 to conduct additional detailed mapping and documentation of the resources within and directly adjacent to the Project APE to identify which sites and features would be impacted by the proposed Project. Tribal representatives were also present during this mapping and documentation effort. The previous documentation of sites CA-RIV-5421, CA-RIV-5811, Features 8 and 9 of Site CA-RIV-5812, and CA-RIV-5819 were accurate and complete for a comprehensive inventory level study and no additional work was conducted at the sites. However, the site forms for CA-RIV-4067, CA-RIV-4068, and

CA-RIV-5420 were not entirely correct or lacked details, such as feature sketches and measurements of the features. This additional work was also completed at sites Temp-2, Temp-3, and Temp-9 through Temp-15.

Initially, at the request of March JPA as the Lead Agency, no testing or significance evaluation was allowed to take place. Due to the lack of subsurface testing data, the boundaries for the newly recorded sites are incompletely defined. However, March JPA, with the tribes' concurrence, is reviewing a testing plan clarify the significance of the identified resources. No archaeological work will be conducted without input from the tribes and without a tribal representative present.

BFSA conducted a photographic documentation survey on June 6, 7, and 8, 2022 to identify 20 historic buildings associated with March AFB WSA, including munitions storage igloos (A1 to A14) and weapons maintenance shops (B, C, D, E, F, and G). The structures were recorded and evaluated individually (Site WSA) and together for historic district designation (Site WSA Historic District). (Appendix E-2).

Buildings A1 to A14 consist of the munitions storage igloos, and according to historic aerial photographs, the underground igloo-style magazines located east of Cactus Circle East (A1 to A9) were constructed between 1948 and 1953, and the ones located west of Cactus Circle East (A10 to A14) were constructed between 1953 and 1962. Archival research and field investigations suggest that these structures were constructed according to military standard designs as approximately 25 feet in width by 80 feet long. These igloos are barrel-shaped structures featuring reinforced concrete foundations and constructions and covered with earth. The wing walls of the igloos feature Huntsville-type primary façades truncated a few feet from the ground, and these designs were typical of the period. Buildings A1 to A9 were designed and constructed by an unknown architect and builder between 1948 and 1953 in the Utilitarian style as munitions storage igloos. Buildings A10 to A14 were designed and constructed by an unknown architect and builder between 1953 and 1962 in the Utilitarian style as munitions storage igloos. Historical research concludes that the storage structures have not undergone any modifications since their initial construction that would have introduced new materials or modified the original form, plan, space, and structure of the buildings. Therefore, the overall form, plan, space, and structure of the original buildings have been preserved and they retain integrity of design and integrity of materials. (Appendix E-2).

Building B is located south of Cactus Avenue, and according to the aerial photographs, Building B was constructed between 1953 and 1962. Building B was constructed in the Utilitarian style as a weapons maintenance shop supporting the WSA. The designer, architect, and builder of this building are unknown. Building B is a single-story, rectangular-planned structure that features a reinforced concrete foundation, concrete walls, and a flat roof. The building features a concrete platform along the north and south façades. Historical research concludes that Building B has not undergone any modifications since its initial construction that would have introduced new materials or modified the original form, plan, space, and structure of the building. Therefore, the overall form, plan, space, and structure of the Building B has been preserved and it retains integrity of design and integrity of materials. (Appendix E-2).

Buildings C and D are located south of Building B, and according to aerial photographs, Buildings C and D were constructed between 1953 and 1962 in the Utilitarian style as weapons maintenance shops supporting the WSA. The designer, architect, and builder of the building are unknown. Building C is located south of Building D. They are both single-story, rectangular-planned structures that feature reinforced concrete foundations, masonry walls, and flat roofs. The roof of Building C is currently collapsed. Historical research concludes that Building C has not undergone any modifications since its initial construction, but the roof of the building has collapsed. While the overall plan and space of the original building remain unchanged, the absence of the roof causes the loss of the original form, structure, and the original materials used in the construction of the building, therefore, Building C does nor retain integrity of design, nor does it retain integrity of materials. Historical research concludes that

Building D has not undergone any modifications since its initial construction that would have introduced new materials or modified the original form, plan, space, and structure of the buildings. Therefore, the overall form, plan, space, and structure of the Building D has been preserved and it retains integrity of design and integrity of materials. (Appendix E-2).

Building E is located south of Cactus Avenue and east of Building B and according to aerial photographs, Building E was constructed between 1953 and 1962 in the Utilitarian style as a weapons maintenance shop supporting the WSA. The designer, architect, and builder of the building are unknown. Building E is a single-story, rectangular planned structure with a projection on its north façade. The building features a reinforced concrete foundation, masonry walls, and a flat roof. Historical research concludes that Building E has not undergone any modifications since its initial construction that would have introduced new materials or modified the original form, plan, space, and structure of the building. Therefore, the overall form, plan, space, and structure of the original building has been preserved and it retains integrity of design and integrity of materials. (Appendix E-2).

Buildings F and G are located north of Cactus Avenue and according to aerial photographs, Building F was constructed between 1953 and 1962 and Building G was constructed between 1967 and 1978. Both buildings were constructed in the Utilitarian style as a weapons maintenance shop supporting the WSA. The designer, architect, and builder of the buildings are unknown. Both buildings are single-story structures with irregular rectangular plans. Both feature flat roofs, reinforced concrete foundations, and masonry walls. Wood-framed doors, windows, and loading doors are featured in both buildings. Historical research concludes that Buildings F and G have not undergone any modifications since its initial construction that would have introduced new materials or modified the original form, plan, space, and structure of the buildings. Therefore, the overall form, plan, space, and structure of the original buildings have been preserved and they retain integrity of design and integrity of materials. (Appendix E-2).

The WSA Historic District includes Buildings A1 to A14, B, C, D, E, F, and G. Most of the buildings within the boundaries of the historic district retain integrity of design, and therefore, the WSA Historic District retains integrity of design. However, since the property no longer retains the same open space, viewshed, landscape, vegetation, or general built environment, none of the buildings or historic district retain integrity of setting. Most of the buildings retain integrity of materials, and therefore, the WSA Historic District retains integrity of materials. Integrity of workmanship was assessed by evaluating the quality of the architectural features present. The original workmanship demonstrated in the construction of the buildings has been well maintained. The buildings, however, do not reflect the labor or skill of a particular culture or people. Therefore, the buildings and the historic district have never possessed integrity of workmanship. The integrity of setting for the buildings has been lost, therefore, the buildings and the historic district do not retain integrity of feeling. Historical research indicates that while March AFB played an important role during both world wars and the Cold War, the buildings within the WSA are not associated with any significant persons or events. None of the individuals who worked in the buildings were found to be significant and no known specific important events occurred at the property. Therefore, the buildings and the historic district have never possessed integrity of association. Of the seven aspects of integrity, Buildings A1 to A14, B, D, E, F, and G, as well as the West Campus Upper Plateau WSA Historic District, were determined to retain integrity of location, design, and materials. These buildings do not retain integrity of setting and feeling, and they have never possessed integrity of workmanship and association. Building C was determined to only retain integrity of location. (Appendix E-2).

As discussed in detail in Section 4.4.2, CEQA and NHPA historic resources eligibility criteria were used to evaluate the structures as potentially historic buildings. Therefore, criteria for listing on both the CRHR and NRHP were used to measure the significance of the resources. Under CRHR/NRHP Criterion 1/Criterion A, historical research

revealed that most of the buildings located within the WSA were constructed after World War II, between 1948 and 1978. The Project area started to be used during the Cold War under the jurisdiction of SAC, and March AFB remained a SAC base for 44 years, serving as the headquarters of the Fifteenth Air Force (Wessel 1995). The 20 WSA buildings were constructed after World War II and were evaluated with respect to the theme "Cold War" with a period of significance between 1948 and 1978. While Buildings A1 to A14 are the only United States Air Force associated munitions storage igloos in California, they are not unique, military-related munitions storage structures in California. Although there are two different groups of bunkers constructed during different periods, they were constructed by using the same style and technique, not showing any evidence of stylistic or technical evolution. The munitions storage igloos at March ARB are not early examples of weapons storage structures, do not feature a unique architectural or engineering quality, and do not show the evolution of igloo construction technology. Therefore, the buildings and historic district are not eligible for listing on the CRHR under Criterion 1 or the NRHP under Criterion A. (Appendix E-2).

Under CRHR/NRHP Criterion 2/Criterion B, historical research revealed that the buildings and historic district are not associated with the lives of any persons important to local, California, or national history. Therefore, the buildings and historic district are not eligible for listing on the CRHR under Criterion 2 or the NRHP under Criterion B. (Appendix E-2).

Under CRHR/NRHP Criterion 3/Criterion C, historical research revealed that Buildings A1 to A9 were constructed between 1948 and 1953 and Buildings A10 to A14 were constructed between 1953 and 1962 in the Utilitarian style as munitions storage igloos. Buildings B, C, D, E, and F were constructed between 1953 and 1962 and Building G was constructed between 1967 and 1978 in the Utilitarian style as weapons maintenance shops supporting the WSA. The designers, architects, and builders of the buildings are unknown. Buildings A1 to A14 feature a barrel-shaped construction covered with earth. This barrel-shaped igloo design was extensively used by the United States military in the construction of the weapons storage facilities before it was replaced by "Stanley"-style magazines. The munitions storage igloos are not early, unique, or significant examples of barrel-shaped igloos. The WSA does not include any "Stanley"-style magazines and fails to show the stylistic and technical transition between the barrel-shaped igloos and "Stanley"-style igloos. All the buildings were constructed in the Utilitarian style, and while the buildings can best be defined as having been constructed in the Utilitarian style, they do not embody distinctive characteristics of a style, type, or method of construction and are not a valuable example of the use of indigenous materials or craftsmanship. In addition, as the builders are unknown, the buildings cannot be identified as representing the work of any important creative individuals. As mentioned previously under CRHR/NRHP Criterion 1/A, they are not early examples of weapons storage structures, do not feature a unique architectural or engineering quality, do not show the evolution of igloo construction technology, and are among the most common military-related weapons storage constructions. Furthermore, buildings B, C, D, E, and F have deteriorated over time, thereby posing a safety risk. Key components of the buildings, including all electricity, have been removed, which has rendered the buildings unfit for their intended use. Adaptive reuse of the buildings is not an option. Finally, none of the buildings retain high degree of integrity. Therefore, the buildings and historic district are not eligible for listing on the CRHR under Criterion 3 or the NRHP under Criterion C. (Appendix E-2).

Under CRHR Criterion 4, historical research revealed that the buildings and historic district are not associated with any significant individuals or events, and it is unlikely that the buildings would yield additional information about the history of the Riverside area, state of California, or the nation. Therefore, the buildings and historic district are not eligible for listing on the CRHR under Criterion 4 or the NRHP under Criterion D. (Appendix E-2).

Neither the historic district nor the buildings are historically or architecturally important. The buildings and historic district only retain low levels of integrity, are not distinctive examples of the Utilitarian style, and are not associated

with any important persons. While the buildings and historic district are associated with the Cold War, they remain relatively insignificant when compared to other Cold War-era bases and storage areas, as they do not represent the historical, architectural, and engineering qualities associated with SAC within a national context, they are not early examples of weapons storage structures, they do not feature a unique architectural or engineering quality, they do not show the evolution of igloo construction technology, and they are common examples of military-related weapons storage construction. As a result, the property was evaluated as not eligible for listing on either the CRHR or the NRHP. (Appendix E-2).

4.4.2 Relevant Plans, Policies, and Ordinances

Federal

The National Register of Historic Places

The NRHP is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service, under the U.S. Department of the Interior, the NRHP was authorized under the National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.). Its listings encompass all National Historic Landmarks, as well as historic areas administered by the National Park Service.

NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries in the NRHP. For a property to be listed in or determined eligible for listing, it must be demonstrated to possess integrity and to meet at least one of the following criteria:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
>
> A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
> B. That are associated with the lives of persons significant in our past; or
> C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> D. That have yielded, or may be likely to yield, information important in prehistory or history.

Integrity is defined in NRHP guidance, *How to Apply the National Register Criteria,* as "the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must have integrity" (NPS 1990). Historic properties either retain integrity (convey their significance) or they do not. Within the concept of integrity, the National Register criteria recognizes seven aspects or qualities that define integrity. The seven aspects of integrity are locations, setting, design, materials, workmanship, feeling and association. In order to retain historic integrity "a property will always possess several, and usually most, of the aspects" (Andrus and Shrimpton 2002).

NRHP guidance further asserts that properties be completed at least 50 years ago to be considered for eligibility. Properties completed fewer than 50 years before evaluation must be proven to be "exceptionally important" (criteria consideration G) to be considered for listing.

Under Section 106 of the National Historic Preservation Act, a historic property is defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the NRHP criteria (36 CFR 800.16(l)(1)).

Effects on historic properties under Section 106 of the National Historic Preservation Act are defined in the assessment of adverse effects in 36 CFR 800.5(a):

> (1) An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.
>
> (2) Adverse effects on historic properties are clearly defined and include, but are not limited to:
>
> (i) Physical destruction of or damage to all or part of the property;
>
> (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR Part 68) and applicable guidelines;
>
> (iii) Removal of the property from its historic location;
>
> (iv) Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance;
>
> (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
>
> (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
>
> (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

To comply with Section 106, the criteria of adverse effect are applied to historic properties, if any exist in the APE, pursuant to 36 CFR 800.5(a)(1). If no historic properties are identified in the APE, a finding of "no historic properties affected" will be made for the proposed Project. If there are historic properties in the APE, application of the criteria of adverse effect will result in Project-related findings of either "no adverse effect" or of "adverse effect," as previously described. A finding of no adverse effect may be appropriate when the undertaking's effects do not meet the thresholds in criteria of adverse effect 36 CFR 800.5(a)(1), in certain cases when the undertaking is modified

to avoid or lessen effects, or if conditions were imposed to ensure review of rehabilitation plans for conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (codified in 36 CFR Part 68).

State

California Register of Historical Resources (CRHR)

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" (Public Resources Code (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)). According to PRC Section 5024.1(c), a resource may be listed as an historical resource in the CRHR if it meets at least one of the following criteria:

(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.

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-era resources. 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 California Historical Landmarks from No. 770 onward, California Points of Historical Interest designated after January 1998, and resources recommended by the State Historical Resources Commission (SHRC). The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described further, the following sections of CEQA (PRC Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.) are of relevance to the analysis of historical and archaeological resources and human remains.

- 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(b) provide information regarding the mitigation framework for archaeological and historic-era 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 the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; 14 CCR 15064.5(b)). If a resource is listed or eligible for listing in the CRHR, 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(g)), it is an "historical resource" and is presumed to be historically or culturally significant for 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)(4)).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect 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 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.

Under PRC Section 21083.2, 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.

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:

(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 Section 21074(c)), further consideration of significant impacts is required (refer to Section 4.16, Tribal Cultural Resources).

CEQA Guidelines Section 15064.5(d) and (e) assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. Described as follows, these procedures are detailed in California Health and Safety Code (H&SC) Section 7050.5 and PRC Section 5097.98.

California Health and Safety Code Section 7050.5; Public Resources Code Section 5097.98

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. H&SC 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 can occur until the county coroner has examined the remains (H&SC Section 7050.5(b)). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. 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 (H&SC 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 from being granted access to the site. The MLD may recommend means of treatment or disposition, with appropriate dignity, the human remains and associated grave goods.

Local

March JPA General Plan

The Resource Management Element defines cultural and historical resources as those consisting of historic structures and facilities, archeological resources, and paleontological resources. The Resource Management Element states that cultural resources are limited, often-non-renewable and need to be carefully preserved and managed.

The goals and policies relevant to cultural resources and the Project from the Resource Management Element are described below (March JPA 1999):

Goal 1: Promote cultural awareness through preservation of the planning area's historic, archaeological and paleontological resources.

Policy 7.5: Require development proposals that are located on or near archeological or paleontological resources to provide a cultural resources study that assesses potential impacts to the resource as a result of the proposed development. The report will include measures to avoid destruction of any significant cultural resources.

Policy 7.6: Require the preservation of identified cultural resources to the extent possible, prior to development, through dedication, removal, transfer, reuse, or other means.

4.4.3 Project Design Features

The following Project Design Feature has been incorporated to avoid impacts to cultural resources.

PDF-CUL-1 Two Weapons Storage Area igloos will be retained on the Project site. These igloos will remain visually accessible to the public and signage will be incorporated to share the historical nature and use of these facilities as part of the former March Air Force Base.

4.4.4 Thresholds of Significance

The significance criteria used to evaluate the Project impacts related to cultural resources are based on the March JPA 2022 CEQA Guidelines. For the purposes of this analysis, a significant impact related to cultural resources would occur if the Project would:

CUL-1: Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.

CUL-3: Disturb any human remains, including those interred outside of dedicated cemeteries.

4.4.5 Impacts Analysis

Threshold CUL-1. ***Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?***

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Construction

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Specific Plan Area also includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The Specific Plan Area also includes installation of utility and roadway networks connecting to

and throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank.

According to Appendix E-1 and described above, the EIC records search results identified 241 resources within one mile of the APE. The records search indicated that eight of the previously recorded resources are within or directly adjacent to the APE. In all, the prehistoric resources within one mile of the APE consist of 16 prehistoric isolates and 200 prehistoric bedrock milling sites, five of which contained associated prehistoric artifacts, one prehistoric artifact scatter, and one multicomponent site containing a prehistoric milling site and a historic residence. The historic resources consist of 11 residences, one historic elementary school, one historic ranch, three historic foundation sites, two historic railroad alignments, two historic isolates, and five historic trash scatters. The remaining site is multicomponent and consists of a prehistoric milling site and a historic residence. Of the eight resources recorded within or in proximity to the APE, seven are prehistoric bedrock milling sites (CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819), and one is a prehistoric isolate (P-33-012662). The APE also contains the Cold War era-March AFB WSA. This historic-era complex has been studied and evaluated as not eligible for inclusion in the NRHP or the CRHR (Appendix E-2).

Based upon the information compiled from the previous cultural studies conducted, sites CA-RIV-4067, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819, located within the APE, and CA-RIV-4068, located adjacent to the APE, have also been previously evaluated as not eligible for inclusion in the NRHP; however, the findings were made without thorough documentation of the resource or significance testing.

Multiple cultural resource sites (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5811-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 through Temp-15) were identified within or in proximity to the APE and only site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP. The remaining sites were never tested for subsurface components and the prior evaluations do not meet the current industry standards.

Brian F. Smith and Associates, Inc. conducted additional detailed mapping and documentation of the resources within and directly adjacent to the APE on June 6 and 7, 2022 to identify which sites and features would be impacted by the proposed Specific Plan Area. Tribal representatives were also present during this mapping and documentation effort. The previous documentation of sites CA-RIV-5421, CA-RIV-5811, Features 8 and 9 of Site CA-RIV-5812, and CA-RIV-5819 were accurate and complete for a comprehensive inventory level study and no additional work was conducted at the sites. However, the site forms for CA-RIV-4067, CA-RIV-4068, and CA-RIV-5420 were not entirely correct or lacked details, such as feature sketches and measurements of the features. This additional work was also completed at sites Temp-2, Temp-3, and Temp-9 through Temp-15. Initially, at the request of March JPA as the Lead Agency, no testing or significance evaluation was allowed to take place. Due to the lack of subsurface testing data, the boundaries for the newly recorded sites are incompletely defined. However, March JPA, with the tribes' concurrence, is reviewing a testing plan to clarify the significance of the identified resources. No archaeological work will be conducted without input from the tribes and without a tribal representative present.

The additional site documentation allowed for the identification of direct impacts from proposed development (as shown in Table 4.4-3). Features within the Specific Plan Area would be directly impacted and features located outside the Specific Plan Area but within 50 feet of the Specific Plan Area may potentially be susceptible to indirect impacts. Features identified outside of the development and 50-foot buffer were identified as potentially having no impacts (Appendix E-1).

Table 4.4-3. Impact Analysis of Archaeological Features Within or Directly Adjacent to the Project APE

Site	Feature	Potential Impact	Proposed Action
CA-RIV-4067	A	Direct Impacts	Attempt to Bury
CA-RIV-4068	A	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
CA-RIV-5420	A	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
	B	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
	C	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
	D	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
	E	Potential indirect impacts	Attempt to Preserve in Place
	F	Direct impacts	Attempt to Relocate Feature
	G	Direct impacts	Attempt to Relocate Feature
CA-RIV-5421	1	Potentially indirect impacts (Site already evaluated as not NRHP-eligible)	Attempt to Preserve in Place
CA-RIV-5811	1	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
	2	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
CA-RIV-5812	8	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
	9	Potential indirect impacts	Attempt to Preserve in Place
CA-RIV-5819	1	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
	2	Potentially no impact (Outside 50-foot Project buffer)	Preserve in Place
	3	Potential indirect impacts	Attempt to Preserve in Place
Temp-2	A	Direct impacts	Attempt to Bury
Temp-3	A	Direct impacts	Attempt to Relocate Feature
Temp-9	A	Direct impacts	Attempt to Preserve in Place
Temp-10	A	Direct impacts	Attempt to Relocate Feature
Temp-11	A	Direct impacts	Attempt to Relocate Feature
	B	Direct impacts	Attempt to Relocate Feature
Temp-12	A	Direct impacts	Attempt to Relocate Feature
Temp-13	A	Direct impacts	Attempt to Relocate Feature
Temp-14	A	Potential indirect impacts	Attempt to Preserve in Place
Temp-15	A	Direct impacts	Attempt to Relocate Feature

Source: Appendix E-1

As a result of the archaeological efforts, five previously recorded prehistoric sites, CA-RIV-4067and CA-RIV-5421, and portions of CA-RIV-5420, CA-RIV-5812, and CA-RIV-5819, and nine newly recorded prehistoric sites, Temp-2, Temp-3, and Temp-9 through Temp-15, would either be directly or indirectly impacted by the proposed Specific Plan Area. Sites CA-RIV-5811, CA-RIV-4068, and portions of sites CA-RIV-5812, CA-RIV-5819, and CA-RIV-5420 fall outside of the limits of direct or indirect impacts and are assumed to be preserved. Site Temp-9 falls within the Specific Plan Area, but may ultimately end up preserved within open space. To minimize impacts, an attempt to preserve in-place for features within proposed open space areas or within areas of indirect impact would be made. In addition, features within the Specific Plan Area that would be in areas of fill are proposed to be covered with fill soil. Features directly within the grading cuts are proposed to be relocated to open space (Appendix E-1).

Of the sites to be impacted, only Site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP. Although the remaining previously recorded sites, CA-RIV-4067, CA-RIV-5420, CA-RIV-5812, and CA-RIV-5819, have previously been evaluated as not eligible for inclusion in the NRHP, they were never tested for subsurface components and the prior evaluations do not meet the current industry standards. Without formal testing, the potential subsurface component of the sites and the actual site boundaries are unknown. In the

absence of the data required to fully identify each site's potential significance, all sites that would be directly and indirectly impacted must be considered eligible for the CRHR and the NRHP (Appendix E-1). March JPA, with the tribes' concurrence, is reviewing a testing plan to clarify the significance of the identified resources. No archaeological work will be conducted without input from the tribes and without a tribal representative present.

With regard to the March AFB WSA, construction of the proposed Specific Plan would remove all structures, with the exception of two bunkers that would be preserved within designated open space. According to Appendix E-2 and described above, 20 historic buildings associated with March AFB WSA, including munitions storage igloos (A1 to A14) and weapons maintenance shops (B, C, D, E, F, and G) were recorded and evaluated individually (Site WSA) and together for historic district designation (Site WSA Historic District) under both the NRHP's and the CRHR's eligibility criteria for listing on both registers. Neither the historic district nor the buildings are historically or architecturally important. The buildings and historic district only retain low levels of integrity, are not distinctive examples of the Utilitarian style, and are not associated with any important persons. While the buildings and historic district are associated with the Cold War, they remain relatively insignificant when compared to other Cold War-era bases and storage areas, as they do not represent the historical, architectural, and engineering qualities associated with SAC within a national context, they are not early examples of weapons storage structures, they do not feature a unique architectural or engineering quality, they do not show the evolution of igloo construction technology, and they are common examples of military-related weapons storage construction. As a result, the property was evaluated as not eligible for listing on either the CRHR or the NRHP. Since the buildings are not architecturally or historically significant, no mitigation measures are recommended prior to their removal or alteration. (Appendix E-2).

Mitigation measures are necessary to mitigate potential impacts that would focus on either preservation and avoidance or upon data recovery excavations to exhaust the research potential of the sites. With implementation of **Mitigation Measure (MM) CUL-1**, an Archaeological Testing Plan (ATP) approved by the tribes, would fully document the boundaries of the sites within or directly adjacent to the Project APE, determine the resource's potential for inclusion in the CRHR, and ensure adequate mitigation measures are set forth for their respective resources, in consultation with the tribes. Under **MM-CUL-2**, a Cultural Resources Monitoring Plan (CRMP) would be prepared to detail the methods and procedures for avoidance and protection measures for cultural resources and procedures for the inadvertent discovery of unrecorded cultural resources. **MM-CUL-3** would require adequate provisions are in place within Contractor Specifications prior to issuance of any grading permit.

MM-CUL-4 would require a Worker's Environmental Awareness Program (WEAP) training for all construction personnel to learn the proper identification and treatment of inadvertent discoveries and **MM-CUL-5**, cultural resources construction monitoring with an archaeologist and Native American monitor(s), as outlined in the CRMP, would ensure no impacts would occur to existing resources and inadvertent discoveries. The implementation of environmental sensitive areas (ESAs) though **MM-CUL-6** would prevent disturbances to the features recommended to be preserved in place. Implementation of **MM-CUL-7** would ensure inadvertent discovery of archaeological resources unearthed during excavation and grading activities would be avoided, evaluated, and consulted as necessary to reduce potentially significant impacts and **MM-CUL-8** would document the monitoring activities conducted and describe how each mitigation measure was fulfilled.

However, even with the application of **MM-CUL-1** through **MM-CUL-8**, in the absence of the data required to fully identify each site's potential significance, all sites that would be directly and indirectly impacted must be considered eligible for the CRHR and the NRHP. A substantial adverse change to historical resources (as defined in CEQA Guidelines Section 15064.5) includes physical demolition, destruction, relocation, or alteration of the resource such that the significance of the resource would be materially impaired. As such, impacts of the construction of the

proposed Specific Plan Area to historical resources pursuant to CEQA Guidelines Section 15064.5 would remain **significant and unavoidable**.

Operation

Impacts are expected to occur during construction within the Specific Plan Area. As such, operational impacts associated with the proposed Specific Plan Area would generally be confined to the same areas impacted by construction. Operation of the Specific Plan Area would not involve ground-disturbing activities that could impact historical resources pursuant to CEQA Guidelines Section 15064.5, therefore, impacts would be **less than significant**, and no mitigation is required.

Conservation Easement

The Conservation Easement would be established in accordance with the CBD Settlement Agreement (Appendix S). Since no ground disturbance is proposed in the Conservation Easement, **no impacts** to historical resources pursuant to CEQA Guidelines Section 15064.5 would occur.

Threshold CUL-2. Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Construction

The Cultural Resources Study prepared by Brian F. Smith and Associates, Inc. (included as Appendix E-1) identified the APE as located within an area of moderate to high cultural resource sensitivity, as is suggested by known site density and predictive modeling. Sensitivity for cultural resources in a given area is usually indicated by known settlement patterns, which in the western Riverside County region is focused around environments with accessible food and water.

As detailed in Appendix E-1, a review of the SLF by the NAHC was conducted to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance were present within one mile of the APE. The SLF search results did not indicate the presence of any sacred sites or locations of religious or ceremonial importance within the APE. At the direction of March JPA, Brian F. Smith and Associates, Inc. contacted the Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians to solicit their involvement with the Project. A site visit with the representatives from both tribes and March JPA was conducted on February 16, 2022. The local tribal governments suggested the presence of a Traditional Cultural Property (TCP) and potentially a Traditional Cultural Landscape (TCL) within the vicinity of or overlapping the APE. However, the recorded boundary of a potential TCP/TCL was not fully identified or formally presented to Brian F. Smith and Associates. Since the boundary of the potential TCP/TCL is unknown, effects cannot be determined without direct consultation with the local Native American tribes through government-to-government consultation. A brief overview of the AB 52 and SB 18 consultations are discussed below.

Assembly Bill 52 Consultation

The Project is subject to compliance with AB 52 (California Public Resources Code [PRC], Section 21074), which requires consideration of impacts to TCRs as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives (that have requested notification) who are traditionally or culturally affiliated

with the geographic area of the proposed Project. All NAHC-listed California Native American Tribal representatives that have requested Project notification pursuant to AB 52 were sent letters by March JPA on November 10, 2021 (see Table 4.4-2). Two tribes, the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians consulted with March JPA under AB 52. Based on the grading plan and a map depicting the location of cultural resources, it was determined that additional surveying of the Conservation Easement was warranted, and March JPA provided an exhibit showing how resources can be retained in place or moved to the adjacent open space area. A field meeting with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians was held on September 15, 2022, to discuss the disposition of the resources. It was agreed that the consultant would prepare a draft Testing Plan for review to determine the boundaries of four resources sites, the developer would stake the limits of grading and right-of-way limits, the timing of the staking so the tribes can walk the Project, and the incorporation of any geospatial data provided by the tribes for resources. On October 11, 2022, March JPA provided the draft Testing Plan to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians, and confirmed that once the Testing Plan was approved, the developer would stake the limits of grading. The draft Testing Plan is currently in review with the tribes. No archaeological work will be conducted without input from the tribes and without a tribal representative present.

Senate Bill 18 Consultation

According to SB 18 (Government Code Section 65352.3), March JPA has a responsibility to initiate consultation with tribes/groups listed on the California NAHC's official SB 18 contact list for amendment of its General Plan or any Specific Plan. SB 18 requires March JPA to send a letter to each contact on the NAHC's SB 18 list, extending an invitation for consultation. March JPA sent notification of the proposed Project to all California Native American tribal representatives that have requested Project notifications pursuant to SB 18 and that are on file with the NAHC as being traditionally or culturally affiliated with the geographic area on December 18, 2021 (see Table 4.4-2). On February 16, 2022, March JPA received a request for consultation from the Rincon Band of Luiseño Indians, which was held on April 12, 2022. A mitigation plan identifying resources that would be avoided/remain in place, relocated to the conservation area, and resources that would be capped and buried in place was provided to the Rincon Band of Luiseño Indians on July 7, 2022. The Rincon Band of Luiseño Indians requested to stay informed on the Project but deferred to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians regarding the disposition of resources, monitoring, and details of the Project. Additionally, the Quechan Tribe of the Fort Yuma Reservation identified in a letter dated December 20, 2021 that they have no comments regarding the Project, and they defer to more local tribes and support their decisions on the projects.

Additionally, as discussed in Appendix E-1 and described above, the EIC records search results identified eight resources within the APE, seven are prehistoric bedrock milling sites (CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819), and one is a prehistoric isolate (P-33-012662). The pedestrian survey confirmed the presence of six previously recorded prehistoric bedrock milling sites (CA-RIV-4067, CARIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819), which all appeared to be in the same condition as when they were last recorded. The prehistoric isolate, P-33-012662 was not identified in its previously recorded location, however, eight additional prehistoric bedrock milling sites (Temp-2, Temp-3, and Temp-9 through Temp-15) were identified within or directly adjacent to the APE (Appendix E-1).

Based upon the information compiled from the previous cultural studies conducted, only site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP, the remaining sites were never tested for subsurface components and the prior evaluations do not meet the current industry standards. In the absence of the data required to fully identify each site's potential significance, all sites that would be directly and indirectly impacted must be considered eligible for the CRHR and the NRHP. As such, the proposed Project may result in a direct or

indirect adverse impact, or adverse effect, to the archaeological resources. Furthermore, implementation of the proposed Project could result in an inadvertent discovery of archaeological resources during grading and excavation activities. Mitigation measures are necessary to mitigate potential impacts that would focus on either preservation and avoidance or upon data recovery excavations to exhaust the research potential of the sites. With implementation of **MM-CUL-1**, an ATP, approved by the tribes, would fully document the boundaries of the sites within or directly adjacent to the Project APE, determine the resource's potential for inclusion in the CRHR, and ensure adequate mitigation measures are set forth for their respective resources, in consultation with the tribes. **MM-CUL-2**, a CRMP would be prepared to detail the methods and procedures for avoidance and protection measures for cultural resources and procedures for the inadvertent discovery of unrecorded cultural resources. **MM-CUL-3** would require adequate provisions are in place within Contractor Specifications prior to issuance of any grading permit.

MM-CUL 4 would require a WEAP training for all construction personnel regarding the treatment of inadvertent discoveries and **MM-CUL-5**, cultural resources construction monitoring with an archaeologist and Native American monitor(s) as outlined in the CRMP, would ensure no impacts would occur to existing resources and inadvertent discoveries. The implementation of ESAs though **MM-CUL-6** would prevent disturbances to the features recommended to be preserved in place. Implementation of **MM-CUL-7** would ensure inadvertent discovery of archaeological resources unearthed during excavation and grading activities would be avoided, evaluated, and consulted as necessary to reduce potentially significant impacts and mitigation measure and **MM-CUL-8** would document the monitoring activities conducted and describe how each mitigation measure was fulfilled.

However, even with the application of **MM-CUL-1** through **MM-CUL-8,** impacts from the proposed Project impacts to archaeological resources would remain **significant and unavoidable**.

Operation

Impacts are expected to occur during construction within the Specific Plan Area. As such, operational impacts associated with the proposed Project would generally be confined to the same areas impacted by construction. Operation of the Project would not involve ground-disturbing activities that could impact archaeological resources pursuant to CEQA Guidelines Section 15064.5, therefore, impacts would be **less than significant**.

Conservation Easement

The Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). Since no ground disturbance is proposed within the Conservation Easement, **no impacts** to archaeological resources pursuant to CEQA Guidelines Section 15064.5 would occur.

Threshold CUL-3. Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Construction

While no known human remains have been identified in the APE as a result of the cultural resources studies, the Project area is situated in a geographic location that was suitable for prehistoric human occupation. Therefore, the possibility of encountering human remains within the APE exists and impacts are considered potentially significant. However, implementation of **MM-CUL-9** would ensure that the procedures outlined in Section 7050.5 of the

California Health and Safety Code would be followed if human remains are unearthed during construction activities and reduce potentially significant impacts to **less than significant with mitigation incorporated**.

Operation

Impacts are expected to occur during construction within the Specific Plan Area. As such, operational impacts associated with the proposed Specific Plan Area would generally be confined to the same areas impacted by construction. Since no ground disturbance would occur during the operational phase of the Specific Plan Area, **no impacts** to human remains would occur.

Conservation Easement

The Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). Since no ground disturbance is proposed within the Conservation Easement, **no impacts** to human remains would occur.

4.4.6 Mitigation Measures

MM-CUL-1 Archaeological Testing Plan (ATP)

Prior to the issuance of any grading permits, the project applicant shall submit an ATP, approved by the consulting tribes (Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians), that details the procedures to fully document the boundaries of resources within or directly adjacent to the APE (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5421, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-15), determine the resource's potential for inclusion in the CRHR, and ensure adequate mitigation measures are set forth for their respective resources, in consultation with the tribes.

The testing program shall avoid any unnecessary excavation of significant deposits, should they be discovered, to minimize archaeological impacts to the site. This testing would only occur at these specific resources along the periphery of the area of impact. The number of shovel test pits (STPs) will vary, with an anticipated range of four to 15 per site. During all field studies, a representative from Pechanga and Soboba will be requested to participate in and monitor the testing program.

MM-CUL-2 Cultural Resources Monitoring Plan (CRMP)

After implementation of the ATP and prior to the issuance of any grading permits, the project applicant shall prepare a CRMP to explicitly detail the methods and procedures for avoidance and protection measures for cultural resources and the procedures for the inadvertent discovery of unrecorded cultural resources. This CRMP shall include but not be limited to the following guidelines:

- The CRMP shall be prepared by an archaeologist meeting the Secretary of the Interior Standards, in consultation with consulting tribe(s) (Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians), the developer, and March JPA, and completed prior to any development within the APE.
- All ground disturbing activities within the Project shall be monitored by a qualified archaeologist and Native American monitor(s).

- The monitoring frequency and coverage area may be adjusted based on observed sensitivity for encountering cultural resources by the qualified archaeologist in consultation with the tribes and March JPA.
- If any human remains are discovered, the Riverside County Coroner and March JPA shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), shall be contacted in order to determine proper treatment and disposition of the remains.
- All ground disturbing activities within 10 to 15 feet of a recorded archaeological feature shall be conducted in a controlled fashion, slowly and deliberately, to ensure any potential subsurface resources will be identified.
- The CRMP shall include the mitigation measures developed in consultation with the tribes after implementation of the ATP.

MM-CUL-3 Contractor Specifications

Following the completion of the ATP and CRMP and prior to issuance of any grading permit, the Project applicant shall provide evidence, to March JPA's satisfaction, that the approved provisions/recommendations as determined in the CRMP are included in Contractor Specifications. The specifications shall include but not be limited to the following:

- "The features outside of the area of direct impact (CA-RIV-4068 Feature A; CA-RIV-5420 Features A, B, C, D, and E; CA-RIV-5421 Feature 1; CA-RIV-5811 Features 1 and 2; CA-RIV-5812 Features 8 and 9; CA-RIV-5819 Features 1, 2, and 3; Temp-9 Feature A; and Temp-14 Feature A) shall be preserved."
- The Contractor Specifications shall include the mitigation measures developed in consultation with the tribes after implementation of the ATP.
- "Controlled grading within 10 to 15 feet of a recorded archaeological feature shall be implemented."
- "Should any cultural resources be discovered during earth-moving activities, no further grading shall occur in the area of the discovery until the Planning Director is satisfied that adequate provisions are in place to evaluate and protect these resources." This condition and the approved provisions/recommendations as determined in the CRMP, shall be incorporated on the cover sheet of the grading plan.

MM-CUL-4 Workers Environmental Awareness Program (WEAP) Training

An archaeologist meeting the Secretary of the Interior Standards and Native American monitor(s) shall attend a pre-grading meeting to conduct a WEAP training regarding cultural and archaeological sensitivity for all construction personnel and monitors who are not trained archaeologists. A PowerPoint presentation and handout or pamphlet shall be prepared to ensure proper identification and treatment of inadvertent discoveries. 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 and tribal cultural resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources, tribal cultural resources, or human remains are uncovered during ground-disturbing activities. These procedures include work

curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitor and tribal monitor(s).

MM-CUL-5 Native American and Archaeological Monitoring

A Native American Monitor and Secretary of Interior Qualified Archaeologist shall be present during all earth-moving construction activities. At least 30 days prior to issuance of grading permits, separate agreements shall be developed with each monitoring Native American Tribes, addressing the roles of the Developer/Applicant, the Qualified Archaeologist, and the Consulting Tribe(s). The Developer/Applicant shall submit fully executed copies of the following to the March JPA: (1) contract for the retention of an archaeologist; (2) contract between the Tribe(s) for Tribal monitoring; (3) the contract between the Tribe(s) and the land owner/Applicant/Developer for the monitoring of the Project construction. Archaeological monitoring shall occur as outlined in the CRMP.

MM-CUL-6 Avoid Environmentally Sensitive Areas (ESA).

Prior to the issuance of grading permits, all features recommended to be preserved in place shall be fenced off with construction fencing and identified as ESAs to ensure Project personnel do not disturb the features. Specific requirements pertaining to the avoidance buffer, style, materials, access, maintenance, and other requirements shall be provided within the CRMP.

MM-CUL-7 Inadvertent Discovery of Archaeological Resources

In the event that archaeological resources or tribal cultural resources are inadvertently unearthed during excavation and grading activities for the Project, the contractor shall cease all earth-disturbing activities within a 100-foot radius of the area of discovery. The Project cultural resources professionals, including the appropriate tribe(s), shall evaluate the significance of the find and determine the appropriate course of action. If avoidance of the resources is not feasible, salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed and shall take into account tribal preferences and sensitivity concerns. After the find has been appropriately avoided or mitigated and cleared by March JPA, the Project cultural resources professional and, if applicable, the Native American monitor(s), work in the area may resume. Pursuant to California Public Resources Code Section 21083.2(b), avoidance is the preferred method of preservation for archaeological resources. If the Developer, the Project archaeologist and the Native American Monitor(s) cannot agree on the significance or the mitigation for such resources, these issues will be presented to the March JPA Planning Director for decision. The March JPA Planning Director shall make a determination based on the provisions of CEQA with respect to archaeological and tribal cultural resources and shall take into account the religious beliefs, customs, and practices of the appropriate Native American tribes. Notwithstanding any other rights available under the law, the decision of the March JPA Planning Director shall be appealable to the March JPA Commission.

If potentially significant features or sites are discovered, an Evaluation Plan shall be developed by the Project archaeologist and the applicable Native American representative and shall contain, at a minimum, a research design and field methodology designed to address the criteria outlined in the CRHR. If a site is determined to be significant, as confirmed by March JPA, data recovery excavations may be necessary unless the resource is avoided and preserved/protected in place.

Evaluation and treatment shall be supervised by an individual or individuals that meet the Secretary of the Interior's Professional Qualification Standards. If the Tribe(s) disagree with regard to the determined significance of the discovery and/or the proposed management strategy for a cultural resource of Native American origin or cultural importance, these issues will be presented to the March JPA Planning Director for decision. The March JPA Planning Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the Project's archaeological Principal Investigator and shall consider the cultural and religious practices of the Tribe(s). Notwithstanding any other rights available under the law, the decision of the March JPA Planning Director shall be appealable to the March JPA Commission.

MM-CUL-8 Archaeological Monitoring Report

A report, prepared by an archaeologist meeting the Secretary of the Interior Standards, documenting monitoring activities conducted by a qualified archaeologist and Native American monitor(s) shall be submitted to March JPA within 60 days of completion of grading or other Project-related activities with the potential to impact archaeological or tribal cultural resources. This report shall document the known resources on the property, describe how each mitigation measure was fulfilled, and document the type of cultural resources recovered and the disposition of such resources. The report will be submitted to March JPA, the Eastern Information Center, and the appropriate tribe(s).

MM-CUL-9 Inadvertent Discovery of Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the Riverside County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, the County Coroner shall notify the NAHC within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall provide recommendations within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

4.4.7 Level of Significance After Mitigation

Threshold CUL-1. Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

As discussed above, multiple cultural resources sites (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CARIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 through Temp-15) were identified in the APE. Only site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP, the remaining sites were never tested. In the absence of the data required to fully identify each site's potential significance, all sites that would be directly and indirectly impacted must be considered eligible for the CRHR and the NRHP.

The 20 historic buildings associated with March AFB WSA, A1 to A14 and Buildings B, C, D, E, F, and G were recorded and evaluated individually (Site WSA) and together for historic district designation (Site WSA Historic District) under both the NRHP's and the CRHR's eligibility criteria for listing on both registers. Neither the historic district nor the buildings are historically or architecturally important, therefore, the property was evaluated as not eligible for listing on either the CRHR or the NRHP. Since the buildings are not architecturally or historically significant, no mitigation measures are recommended prior to their removal or alteration.

The following mitigation measures would reduce potentially significant impacts to historical resources. **MM-CUL-1** requires the implementation of an ATP approved by the tribes, which would fully document the boundaries of the sites within or directly adjacent to the Project APE, determine the resource's potential for inclusion in the CRHR, and ensure adequate mitigation measures are set forth for their respective resources, in consultation with the tribes. Following the completion of **MM-CUL-1**, a CRMP, included as **MM-CUL-2**, shall be prepared to explicitly detail the methods and procedures for avoidance and protection measures for cultural resources and procedures for the inadvertent discovery of unrecorded cultural resources.

MM-CUL-3 requires adequate provisions are in place within Contractor Specifications prior to issuance of any grading permit. **MM-CUL 4** would require all construction personnel to be trained in the proper identification and treatment of inadvertent discoveries. The implementation of cultural resources construction monitoring, included as **MM-CUL-5**, would ensure no impacts would occur to existing resources and inadvertent discoveries. Additionally, the implementation of ESAs though **MM-CUL-6** would prevent disturbances to the features recommended to be preserved in place. Furthermore, implementation of **MM-CUL-7** would ensure inadvertent discovery of archaeological resources unearthed during excavation and grading activities would be avoided, evaluated, and consulted as necessary to reduce potentially significant impacts. Mitigation measure **MM-CUL-8** would document the monitoring activities conducted and describe how each mitigation measure was fulfilled.

A substantial adverse change to historical resources (as defined in CEQA Guidelines Section 15064.5) includes physical demolition, destruction, relocation, or alteration of the resource such that the significance of the resource would be materially impaired. However, even with the application of **MM-CUL-1** through **MM-CUL-8,** the Project would result in potentially significant impacts to CRHR and NRHP-eligible resources. Therefore, impacts to historical resources would be **significant and unavoidable.**

Threshold CUL-2. ***Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?***

As discussed above, the Project site is located within an area of moderate to high cultural resource sensitivity. Multiple cultural resource sites (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CARIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 through Temp-15) were identified within or in proximity to the APE. Only site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP, the remaining sites were never tested. In the absence of the data required to fully identify each site's potential significance, all sites that would be directly and indirectly impacted must be considered eligible for the CRHR and the NRHP. In addition, excavation may result in adverse effects previously unknown, inadvertently discovered archaeological resources. A substantial adverse change to archaeological resources (as defined in CEQA Guidelines Section 15064.5) includes physical demolition, destruction, relocation, or alteration of the resource such that the significance of the resource would be materially impaired However, even with the application of **MM-CUL-1** through **MM-CUL-8,** the Project would result in potentially significant impacts to CRHR and NRHP-eligible resources. Therefore, impacts to archaeological resources would be **significant and unavoidable.**

Threshold CUL-3. Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

The discovery of human remains would require handling in accordance with PRC 5097.98, which states that in the event that human remains are discovered during construction, construction activity shall be halted, and the area shall be protected until consultation and treatment can occur as prescribed by state law. In the unexpected event that human remains are unearthed during construction activities, mitigation measure **MM-CUL-9** would be implemented, which outlines procedures in accordance with Section 7050.5 of the California Health and Safety Code. With implementation of this mitigation measure, impacts would be **less than significant after mitigation**.

4.4.8 Cumulative Effects

Cumulative impacts on cultural resources consider whether impacts of the proposed Project together with other related projects identified within the vicinity of the Project site, when taken as a whole, substantially diminish the number of historic or archeological resources within the same or similar context or property type. Fifty-one cumulative projects have been identified under Table 4-2, Related Projects, of Chapter 4, Environmental Analysis, of this EIR. However, impacts to cultural resources, if any exist, tend to be site-specific.

The cultural landscape relevant to the Project area is dominated by a plateau which is surrounded by low rolling hills separated by seasonal drainages. The confluences of drainages are often major habitation site locations, with associated temporary camps and resource procurements stations established on surrounding tributaries and on adjacent uplands. The cumulative study area includes the ubiquitous presence of bedrock milling features. Small groups of bedrock milling features represent the most common type of prehistoric cultural resources within the Riverside and Moreno area, and approximately 200 bedrock milling sites were identified within one mile of the APE.

Numerous past archaeological investigations on similar sites in southern California have yielded little information of scientific value and have been found to lack a substantial amount of associated artifacts. Their significance lies in their placement in the larger setting of the prehistoric cultural landscape. The importance of cultural resources is based on their research value and the information that they contain. The cumulative loss of that information would be a significant impact. Cultural resources are non-renewable and therefore, information can be preserved through recordation, text excavations, and data recovery programs of significant sites that are not placed in open space easements and would be directly impacted by a project.

As discussed above in this section, the APE was surveyed for cultural resources relative to archaeological and historical resources. An intensive pedestrian field survey was conducted, and archaeological and historical resources were identified within the Project area. The 20 historic buildings associated with March AFB WSA were recorded and evaluated individually (Site WSA) and together for historic district designation (Site WSA Historic District) under both the NRHP's and the CRHR's eligibility criteria for listing on both registers. Neither the historic district nor the buildings are historically or architecturally important, and the property was evaluated as not eligible for listing on either the CRHR or the NRHP. Since the buildings are not architecturally or historically significant, no mitigation measures was recommended prior to their removal or alteration.

Cultural resource sites (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CARIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 through Temp-15) were identified within or in proximity to the APE. Only site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP, the remaining sites were never tested. In the absence of the data required to fully identify each site's potential significance, all sites that would be directly and indirectly impacted must be considered eligible for the CRHR and the NRHP. However, even with the application of

MM-CUL-1 through **MM-CUL-8,** the Project would result in potentially significant cumulative impacts to archaeological resources.

For archaeological resources, cumulative projects may require extensive excavation in culturally sensitive areas, and thus, may result in adverse effects to known or previously unknown, inadvertently discovered archaeological resources. There is the potential for accidental discovery of other archaeological resources by the proposed Project as well as by cumulative projects. Because all significant cultural resources are unique and nonrenewable, all adverse effects or negative impacts contribute to a dwindling resource base. In the unlikely event that unanticipated archaeological resources are encountered during ground-disturbing activities, mitigation measures **MM-CUL-1** through **MM-CUL-8** would be implemented. However, given that the Project would result in significant and unavoidable impacts to archaeological resources, the Project's cumulative impacts related to archaeological resources would be **cumulatively considerable**.

Impacts to sites on the cumulative projects list would be mitigated through measures that preserve the information of the cultural resource, which may include avoidance/preservation in open space, implementation of data recovery programs, curation of cultural material collected, and documentation of resources through reports, and monitoring during construction. If new or buried resources are inadvertently discovered during construction of this Project, or projects within the cumulative study area, site-specific measures are necessary to either avoid/preserve, or collect information through evaluation or data recovery. Therefore, significant cultural resource information in the cumulative impact project area would be preserved through mitigation and would be made on a case-by-case basis, and the effects of cumulative development on historical and archaeological resources would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, impacts on historical and archaeological resources would be **cumulatively considerable** even with mitigation incorporated (**MM-CUL-1** through **MM-CUL-8**).

The proposed Project was determined to have less-than-significant direct impacts on human remains. In the unlikely event that human remains are discovered, **MM-CUL-9** (refer to Section 4.4.4 of this EIR) would be implemented to ensure that the Project complies with state and local laws should human remains be discovered. As such, Project impacts related to human remains would be less than significant with mitigation incorporated. Other individual projects occurring in the vicinity of the Project site would also be subject to the same state requirements to contact appropriate agencies and coordinate with the Riverside County Coroner. Therefore, **impacts on human remains would not be cumulatively considerable with mitigation incorporated** (**MM-CUL-9**).

4.4.9 References Cited

Bailey, J.F. 1961. "The Growth of Riverside." Unpublished thesis, University of California at Riverside, Riverside Special Collections Department, Riverside, California.

Bean, L.J. and F.C. Shipek. 1978. "Luiseño." In *Handbook of North American Indians* (Vol. 8), California, edited by R.F. Heizer. Smithsonian Institution, Washington, D.C.

Beattie, G.W. and Helen P. Beattie. 1939. *Heritage of the Valley: San Bernardino's First Century*. Biobooks, Oakland, California.

Brigandi, P. 1998. *Temecula: At the Crossroads of History*. Heritage Media Corporation, Encinitas, California.

Brown, J.B. 1985. *Harvest of the Sun: An Illustrated History of Riverside County*. Windsor Publications, Northridge, California.

Byrd, B.F. 1998. Harvesting the Littoral Landscape During the Late Holocene: New Perspectives from Northern San Diego County. *Journal of California and Great Basin Anthropology* 20(2):195–218.

Caughey, J.W. 1970. *California, A Remarkable State's Life History*. Prentice-Hall Inc., Englewood Cliffs, New Jersey.

Chapman, C.E. 1921. *A History of California: The Spanish Period*. The Macmillan Company, New York.

Cook, S.F. 1976. *The Conflict Between the California Indian and White Civilization.* University of California Press, Berkeley and Los Angeles, California.

Explosives Safety Board. 1997. *DoD Ammunition and Explosives Safety Standards*. The Office of the Undersecretary of Defense, Washington, D.C.

Engelhardt, Z. 1921. *San Luis Rey Mission, The King of the Missions*. James M. Barry Company, San Francisco, California.

Erlandson, J.M. and R.H. Colten (eds). 1991. "An Archaeological Context for Early Holocene Sites on the California Coast." In *Hunter-Gatherers of Early Holocene Coastal California*, pp. 101–111. Perspectives in California Archaeology 1. Institute of Archaeology, University of California, Los Angeles.

Fagan, B. 1991. *Ancient North America: The Archaeology of a Continent*. Thames and Hudson. London.

Fine, L., and Remington, J. 1972. *United States Army in World War II; the Technical Services; the Corps of Engineers: Construction in the United States.* Office of the Chief of Military History, Department of the Army, Washington, D.C.

Gallegos, D. 1987. "A Review and Synthesis of Environmental and Cultural Material for the Batiquitos Lagoon Region." In *San Dieguito-La Jolla: Chronology and Controversy*. Editor. San Diego County Archaeological Society Research Paper 1.

Gallegos, D. 1992. Patterns and Implications of Coastal Settlement in San Diego County: 9000 to 1300 Years Ago. In *Essays on the Prehistory of Maritime California*, edited by Terry Jones. Center for Archaeological Research, Davis, California.

Gallegos, D.R. and C.E. Kyle. 1988. Five Thousand Years of Maritime Subsistence at Ballast Point Prehistoric SiteSDI-48 (W-164) San Diego, California. Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

Guinn, J.M. 1907. *A History of California and an Extended History of its Southern Coast Counties.* Historic Record Company, Los Angeles, California.

Gunther, J.D. 1984. *Riverside County, California, Place Names*. Rubidoux Printing Co., Riverside, California.

Handley, C.. 1967. The Sun City Story. *Sun City News.* Sun City, California.

Johnson, Patti et. al. 1991. *Inventory and Evaluation of World War II Structures*: March Air Force Base, Riverside, California. Draft. Sacramento: U.S. Army Corps of Engineers.

Koerper, H.C., J.E. Ericson, C.E. Drover, and P.E. Langenwalter, II. 1986. Obsidian Exchange in Prehistoric Orange County. *Pacific Coast Archaeological Society Quarterly* 22 (1):33-69.

Kowta, M. 1969. "The Sayles Complex: A Late Milling Stone Assemblage from Cajon Pass and the Ecological Implications of Scraper Planes." University of California Publications in *Anthropology* 6.

Kroeber, A.L. 1976. *Handbook of the Indians of California.* Reprinted. Dover Editions, Dover Publications, Inc., New York. Originally published 1925, Bulletin No. 78, U.S.

Kuranda, K. et. al. 2009. Army Ammunition and Explosives Storage During the Cold War, 1946-1989 – Report (Electronic Document). Published in The Digital Archaeological Record, A Service of Digital Antiquity. Accessed December, 2022.

Laylander, D. (ed). 1985. "Some Linguistic Approaches to Southern California's Prehistory." *San Diego State University Cultural Resource Management Casual Papers* 2(1):14–58.

March Air Field Museum. n.d. "History of March Air Reserve Base" [webpage]. Accessed January 18, 2021. https://www.marchfield.org/visit/about-us/march-air-reserve-base-history/.

March ARB (Air Reserve Base). 2010. "The March Field Story" [webpage]. Accessed August 14,2020. https://www.march.afrc.af.mil/About-Us/Fact-Sheets/Display/Article/167413/the-march-field-story/.

Martin, P.S. 1967. Prehistoric Overkill. "Pleistocene Extinctions: The Search for a Cause." Edited by P. Martin and H.E. Wright. Yale University Press: New Haven.

Martin, P.S. 1973. "The Discovery of America." Science 179(4077): 969-974.

Masters, P.M. 1983. "Detection and Assessment of Prehistoric Artifact Sites off the Coast of Southern California." *Quaternary Coastlines and Marine Archaeology: Towards the Prehistory of Land Bridges and Continental Shelves* (P.M. Masters and N.C. Flemming, eds). Pages 189-213. Academic Press, London.

Meighan, C.W. 1954. "Late Complex in Southern California Prehistory." *Southwestern Journal of Anthropology* 10(2).

Mersereau, D. 2014. July 10, 1926: The Day Nature Blew Up a Town in New Jersey (On-line article), https://thevane.gawker.com/july-10-1926-the-day-nature-blew-up-a-town-in-new-jer-1602586498, accessed November 2022.

Mikesell and Wee. 1996. *Cultural Resources Management Plan for March AFB, California*. JRP Historical Consulting Services. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Miller, J. 1966. "The Present and Past Molluscan Faunas and Environments of Four Southern California Coastal Lagoons." Master's thesis. University of California, San Diego.

Moratto, M.J. 1984. *California Archaeology*. Academic Press, New York.

Moriarty, J.R., III. 1966. "Culture Phase Divisions Suggested by Topological Change Coordinated with Stratigraphically Controlled Radiocarbon Dating in San Diego." *Anthropological Journal of Canada* 4(4):20–30.

Moss, M.L. and J. Erlandson. 1995. "Reflections on North American Coast Prehistory." *Journal of World Prehistory* 9(1):1-46.

Murphey et. al. 2000. Army Ammunition and Explosive Storage in the United States: 1775-1945 (Electronic Document). U.S. Army Corps of Engineers Fort Worth District, Geo-Marine, Inc., Special Publications Number 7. Accessed December 2022.

Patterson, T. 1971. *A Colony for California: Riverside's First Hundred Years*. Press-Enterprise, Riverside, California.

Pourade, R.F. 1961. *Time of the Bells.* The History of San Diego Volume 2. Union-Tribune Publishing Company, San Diego, California.

Pourade, R.F. 1963. *The Silver Dons.* The History of San Diego Volume 3. Union-Tribune Publishing Company, San Diego, California.

Raven-Jennings, S., B.F. Smith, and J.L. Buysse. 1996. "The Results of a Cultural Resource Study at the 4S Ranch, Rancho Bernardo, County of San Diego." Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

Reed, M.B. 1995. Ammunition Storage: Early Twentieth Century Design and Context, Fort McClellan, Alabama. Report #289. New South Associates, Stone Mountain, Georgia. Prepared for the Corps of Engineers,

Rogers, M.J. 1939. "Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas." In *San Diego Museum Papers* (No. 3–1989 printing). San Diego Museum of Man, San Diego, California.

Rolle, A.F. 1969. *California: A History* (Second Edition). Thomas Y. Crowell Company, New York.

Schroth, A. B. 1998. Review of Traditional Cultural Properties and Ethnography of the March Joint Powers Authority Planning Area. LSA Associates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Shumway, G., C.L. Hubbs, and J.R. Moriarty, III. 1961. "Scripps Estate Site, San Diego, California: A La Jollan Site Dated 5,460-7,370 Years Before the Present." *Annals of the New York Academy of Sciences* 93(3).

Smith, B.F. and J.R. Moriarty, III. 1985. "An Archaeological Reconnaissance of San Diego Motor Racing Park, Otay Mesa, San Diego." Unpublished report on file at the City of San Diego, Environmental Analysis Division, San Diego, California.

Stonehouse, M. 1965. *John Wesley North and the Reform Frontier.* University of Minnesota Press, Minneapolis, Minnesota.

Sutton, M.Q. 2009. "People and Language: Defining the Takic Expansion into Southern California." *Pacific Coast Archaeological Society Quarterly* 41(2&3):33–93.

Sutton, M.Q. 2011a. “The Palomar Tradition and Its Place in the Prehistory of Southern California.” *Pacific Coast Archaeological Society Quarterly* 44(4):1–74.

Sutton, M.Q. 2011b. *A Prehistory of North America.* Routledge, New York.

Sutton, M.Q. and J.K. Gardener. 2010. “Reconceptualizing the Encinitas Tradition of Southern California.” *Pacific Coast Archaeological Society Quarterly* 42(4):1–64.

True, Delbert L. 1958. “An Early Complex in San Diego County, California.” *American Antiquity* 23(3).

True, Delbert L. 1980. The Pauma Complex in Northern San Diego County. *The Journal of New World Archaeology* 3(4):1–39

U.S. Census Bureau. 2010. "2010 Census of Population and Housing, Population and Housing Unit Counts, CPH-2-1, United States Summary. U.S. Government Printing Office, Washington, D.C., 2012” [PDF]. Accessed August 14, 2020. https://www2.census.gov/library/publications/decennial/2010/cph-2/cph-2-1.pdf.

Wallace, W.J. 1955. “A Suggested Chronology for Southern California Coastal Archaeology.” *Southwestern Journal of Anthropology.* 11:214–230.

Warren, C.N. (editor). 1968. “Cultural Tradition and Ecological Adaptation on the Southern Coast.” In *Archaic Prehistory in the Western United States*, C.I. Williams, editor. Eastern New Mexico. University Contributions in Anthropology, 1(3):1–14.

Warren, C.N. and D.L. True. 1961. “The San Dieguito Complex and its Place in California Prehistory.” *Archaeological Survey Annual Report 1960-1961.* University of California Press, Los Angeles, California.

Warren, C.N., D.L. True, and A.A. Eudey. 1961. “Early Gathering Complexes of Western San Diego County: Results and Interpretations of an Archaeological Survey.” *Archaeological Survey Annual Report 1960-1961*. University of California, Los Angeles.

Wessel, T.C. 1995. Historic Building Inventory and Evaluation, March Air Force Base, Riverside County, California. William Manley Consulting and EARTH TECH. Submitted to and on file with the U.S. Department of the Air Force, Brooks Air Force Base, Texas.

William Manley Consulting and Earth Tech. 1995. “Historic Building Inventory and Evaluation, March Air Force Base, Riverside County, California.” Prepared for Michael Brandman Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

4.5 Energy

The following analysis is based on the California Environmental Quality Act (CEQA) Guidelines, Section 15126.4, and Appendix F of the CEQA Guidelines, which require that Environmental Impact Reports (EIRs) include a discussion of the potential energy impacts of projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (14 CCR 15000 et seq.). This section discusses potential impacts to energy consumption, including electricity, diesel, and gasoline, from implementation of the proposed West Campus Upper Plateau Project (Project). This analysis is based on calculations and California Emissions Estimator Model (CalEEMod) outputs presented in the Energy Analysis (Appendix F).

As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.5.1 Existing Conditions

Electricity

According to the U.S. Energy Information Administration, California used approximately 250,175 gigawatt hours of electricity in 2020. By sector in 2020, commercial uses utilized 43% of the state's electricity, followed by 38% for residential uses, and 19% for industrial uses (EIA 2018). 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 in the commercial sector is lower than any other state except Rhode Island (EIA 2022a).

Southern California Edison (SCE) provides electricity to the Project site. SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across central and Southern California. According to the California Public Utilities Commission (CPUC), approximately 84 billion kilowatt-hours of electricity were used in SCE's service area in 2020. Demand forecasts anticipate that approximately 320 billion kilowatt-hours of electricity will be used in SCE's service area in 2030 (CEC 2020).

SCE receives electric power from a variety of sources. According to CPUC's 2020 California Renewables Portfolio Standard Annual Report, 30.9% of SCE's power came from eligible renewables, such as biomass/waste, geothermal, small hydroelectric, solar, and wind sources (CEC 2021). The California Renewables Portfolio Standard (RPS) Program establishes a goal for California to increase the amount of electricity generated from renewable energy resources to 20% by 2010, and to 33% by 2020. Senate Bill (SB) 100 (2018) increased the standards set forth in SB 350. SB 100 establishes that 44% of the total electricity sold per year to retail customers in California be secured from qualifying renewable energy sources by December 31, 2024, with that number increasing to 52% by December 31, 2027, and 60% by December 31, 2030.

Natural Gas

According to the CEC, California used approximately 21,155 million therms[1] of natural gas in 2020 (EIA 2022b). In 2020, by sector, industrial uses utilized 34% of the state's natural gas, followed by 30% from electric power, 23% from residential, 12% from commercial, and 0.01% from transportation uses (CEC 2020). Although 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 90% of its supply (EIA 2018).

The Southern California Gas Company (SoCalGas) provides the Project site with natural gas service. The territory serviced by SoCalGas encompasses approximately 20,000 square miles and more than 500 communities. In the California Energy Demand mid-energy demand scenario, natural gas demand is projected to have an annual growth rate of 0.03% in SoCalGas's service territory. As of 2020, approximately 5.2 billion therms were used in SoCalGas's service area per year. Around the time of the initiation of Project construction in 2022, natural gas demand is anticipated to be approximately 7.4 billion therms per year in SoCalGas's service area (CEC 2020). The total capacity of natural gas available to SoCalGas in 2016 is estimated to have been 3.9 billion cubic feet per day. In 2020, the total capacity available is also estimated to be 3.9 billion cubic feet per day[2] (California Gas and Electric Utilities 2016). This amount is approximately equivalent to 3.98 billion thousand British thermal units per day or 39.8 million therms per day. Over the course of a year, the available capacity would, therefore, be 14.5 billion therms per year, which is well above the existing and future anticipated natural gas demand in the area serviced by SoCalGas.

Petroleum

According to the CEC, California used approximately 17.4 billion gallons of petroleum in 2021 (CARB 2022). This equates to a daily use of approximately 48 million gallons of petroleum. By sector, transportation uses utilize approximately 85.5% of the state's petroleum, followed by 11.1% from industrial, 2.5% from commercial, 0.9% from residential, and 0.01% from electric power uses (EIA 2018). In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. Production of petroleum in the United States was 9.7 million barrels per day during April 2015, which was the highest output since April 1971 (CEC 2020).

1 One therm is equal to 100,000 British thermal units (BTU) or 100 thousand British thermal units (kBTU).
2 One cubic foot of natural gas has approximately 1,020 BTUs of natural gas or 1.02 kBTUs of natural gas.

4.5.2 Relevant Plans, Policies, and Ordinances

Federal

Clean Vehicles

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the U.S. Environmental Protection Agency (EPA) and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas (GHG) emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide (CO_2) per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams per mile of CO_2 by model year 2025, which is equivalent to 54.5 miles per gallon if achieved exclusively through fuel economy improvements.

The EPA and U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12% and 17%, respectively, if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10% reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On April 2, 2018, the EPA signed the Mid-term Evaluation Final Determination, which finds that the model years 2022 to 2025 GHG standards are not appropriate and should be revised (88 FR 16077). This Final Determination serves to initiate a notice to further consider appropriate standards for model years 2022 to 2025 light-duty vehicles. On August 24, 2018, the EPA and NHTSA published a proposal to freeze the model year 2020 standards through model year 2026 and to revoke California's waiver under the Clean Air Act to establish more stringent standards (EPA and NHTSA 2018). As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule, which increased stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026 (NHTSA 2020). In March 2022, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and ZEV sales mandate. EPA's action concludes its reconsideration of the 2019 SAFE-1 rule by finding that the actions taken under the previous administration as a part of SAFE-1 were decided in error and are now entirely rescinded.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased corporate average fuel economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS), Section 202
- Appliance and Lighting Efficiency Standards, Sections 301–325
- Building Energy Efficiency, Sections 411–441

This federal legislation (the RFS) requires ever-increasing levels of renewable fuels to replace petroleum (EPA 2017). The EPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the Energy Policy Act, the original RFS program (RFS1) 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 key ways that lay 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 (RFS2) includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- 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.
- EISA established new categories of renewable fuel, and set separate volume requirements for each one.
- EISA required the 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" jobs.

State

Warren–Alquist Act

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

State of California Energy Action Plan

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The Energy Action Plan established shared goals and specific actions to ensure the provision of adequate, reliable, and reasonably priced electrical power and natural gas supplies. It also identified cost-effective and environmentally sound energy policies, strategies, and actions for California's consumers and taxpayers. In 2005, the CEC and CPUC adopted a second Energy Action Plan to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new Energy Action Plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new Energy Action Plan, the CEC and CPUC prepared an "update" that examines the state's ongoing actions in the context of global climate change.

Senate Bill 1078 (2002)

SB 1078 established the California RPS Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20% standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. SB 1078 relatedly required the CEC to certify eligible renewable energy resources, to design and implement an accounting system to verify compliance with the RPS by retail sellers, and to allocate and award supplemental energy payments to cover above-market costs of renewable energy.

Senate Bills 107 (2006), X1-2 (2011), 350 (2015), and 100 (2018)

SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20% of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) requires all California utilities to generate 33% of their electricity from eligible renewable energy resources by the end of 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20% had to come from renewables; by December 31, 2016, 25% had to come from renewables; and by December 31, 2020, 33% will come from renewables. The CPUC 2021 California RPS Annual Report stated the RPS goals through 2020 were attained (CPUC 2021).

SB 350 (2015) requires retail sellers and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030, with interim goals of 40% by 2024 and 45% by 2027.

SB 100 (2018) increased the standards set forth in SB 350. SB 100 establishes that 44% of the total electricity sold per year to retail customers in California be secured from qualifying renewable energy sources by December 31, 2024, with that number increasing to 52% by December 31, 2027, and 60% by December 31, 2030. 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. SB 100 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.

Consequently, utility energy generation from non-renewable resources is expected to be reduced based on implementation of the 60% RPS in 2030. Therefore, any project's reliance on non-renewable energy sources would also be reduced.

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.

Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 required California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources. Additional information on AB 32 and SB 32 is provided in Section 4.7, Greenhouse Gas Emissions, of this Draft EIR.

California Building Standards

Part 6 of Title 24 of the California Code of Regulations (CCR) was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies. The 2019 Title 24 Building Energy Efficiency Standards became effective January 1, 2020, which will reduce energy used and associated GHG emissions compared to the 2016 Title 24 building energy standards. Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30% less energy than those built to the 2016 standards (CEC 2018). On August 11, 2021, the CEC adopted the 2022 Energy Code. In December 2021, it was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code (CEC 2022a).

Title 24 also includes Part 11, the California Green Building Standards (CALGreen). The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-

up, new construction of commercial, low-rise residential, and state-owned buildings, as well as schools and hospitals. The 2019 CALGreen standards are applicable to the Project and require the following:

- **Short-term bicycle parking. If** the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (Section 5.106.4.1.1).
- **Long-term bicycle parking.** For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (Section 5.106.4.1.2).
- **Designated parking.** In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles, as shown in Table 5.106.5.2 (Section 5.106.5.2).
- **Construction waste management.** Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3, or meet a local construction and demolition waste management ordinance, whichever is more stringent (Section 5.408.1).
- **Excavated soil and land clearing debris.** 100% of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phase project, such material may be stockpiled on site until the storage site is developed (Section 5.408.3).
- **Recycling by occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (Section 5.410.1).
- **Water conserving plumbing fixtures and fittings.** Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (Section 5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (Section 5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (Section 5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi [pounds per square inch] (Section 5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (Section 5.303.3.3.2).
    - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of note more than 0.5 gallons per minute at 60 psi (Section 5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (Section 5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (Section 5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (Section 5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (Section 5.303.3.4.5).
- **Outdoor potable water use in landscaped areas.** Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (Section 5.304.1).

- **Water meters.** Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 square feet, or for excess consumption where any tenant within a new building or within an addition that is projected to consume more than 1,000 gallons per day (Sections 5.303.1.1 and 5.303.1.2).
- **Outdoor water** use in rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 square feet requires a building or landscape permit (Section 5.304.3).
- **Commissioning.** For new buildings 10,000 square feet and greater, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (Section 5.410.2).

Integrated Energy Policy Report

The CEC is responsible for preparing integrated energy policy reports that identify emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The CEC's 2019 Integrated Energy Policy Report discusses the state's goal to decarbonize the state's electricity system in response to SB 100, or remove carbon from other portions of the state's energy system. Strategies to increase energy efficiency in existing buildings and, more broadly, to achieve a statewide doubling of energy efficiency savings from electricity and natural gas end uses by 2030 (CEC 2020). Refer to Section 4.7 of this Draft EIR for additional information on the state's net zero emission objectives and how the state's achievement of its objectives would serve to beneficially reduce the Project's GHG emissions profile and energy consumption.

Assembly Bill 1493

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The standards phased in during the 2009 through 2016 model years. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars program. The Advanced Clean Cars program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California (CARB 2011).

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates. As codified in California Government Code Section 65080, SB 375 requires metropolitan planning organizations

(e.g., Southern California Association of Governments) to include a Sustainable Communities Strategy in their Regional Transportation Plan. The main focus of the Sustainable Communities Strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a larger effort to address other development issues, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

Local

County of Riverside Climate Action Plan

The County of Riverside adopted the Updated Climate Action Plan (CAP) on December 17, 2019. The CAP was designed under the premise that the County of Riverside, and the community it represents, is uniquely capable of addressing emissions associated with sources under Riverside County's jurisdiction, and that Riverside County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to accomplish these reductions in an efficient and cost-effective manner (County of Riverside 2019).

The Project site is located in the jurisdiction of the March Joint Powers Authority (JPA) within Riverside County. Although the County of Riverside does not have direct authority over the Project, it is anticipated that in approximately 2025, Riverside County will assume full land use control over the March JPA planning area, due to the planned sunsetting/dissolution of the March Joint Powers Authority. Accordingly, consistency with the County's CAP provides an additional metric to determine if the Project's impacts are significant and provides an appropriate set of policies that are intended to guide development within unincorporated Riverside County.

CAP measure R2-CE1, includes on-site renewable energy production and is required for any tentative tract map, plot plan, or conditional use permit that proposes to add more than 75 new dwelling units of residential development or one or more new buildings totaling more than 100,000 gross square feet (sf) of commercial, office, industrial, or manufacturing development. Renewable energy production shall be on-site generation of at least 20% of energy demand for commercial, office, industrial or manufacturing development, meet or exceed 20% of energy demand for multi-family residential development, and meet or exceed 30% of energy demand for single-family residential development.

March Joint Powers Authority General Plan

The Noise/Air Quality Element of the March JPA General Plan includes goals and policies that will be applied to the Project related to GHG emissions, which will also reduce energy consumption. Consistency with these goals and policies are discussed in Section 4.10, Land Use and Planning. The following goals and policies from the Noise/Air Quality Element apply to the Project (March JPA 1999):

Goal 3: Reduce air pollution through proper land use, transportation, and energy use planning.

Policy 3.4: Encourage ride share programs.

Goal 6: Reduce emissions associated with vehicle/engine use.

Policy 6.1: Reduce idling emissions by increasing traffic flow through synchronized traffic signals.

Policy 6.2: Work with Riverside Transit Agency (RTA) to develop a local transit system and facilitate connections of the local transit system with regional transit systems.

Policy 6.3: Encourage diversion of peak hour truck traffic, whenever feasible, to off-peak periods to reduce roadway congestion and associated emissions.

Policy 6.4: Work with Caltrans [California Department of Transportation] and traffic engineers to ensure that roadways and freeway on-ramps that are heavily utilized by trucks are designed to safely accommodate trucks.

Policy 6.5: Encourage trucks operating within March JPA Planning Area to maintain safety equipment and operate at safe speeds so as to reduce the potential for accidents which create congestion and related emissions.

Policy 6.6: Reduce vehicle emissions through improved parking design and management that provide for safe pedestrian access to and from various facilities.

Policy 6.8: Encourage the use of compressed natural gas, clean diesel and/or alternative fuels in engines.

Goal 7: Reduce emissions associated with energy consumption.

Policy 7.1: Support the use of energy-efficient equipment and design in the March JPA Planning Area for facilities and infrastructure.

Policy 7.2: Encourage incorporation of energy conservation features in development.

Policy 7.3: Support passive solar design in new construction.

Policy 7.4: Support recycling programs which reduce emissions associated with manufacturing and waste disposal.

Policy 7.5: Support drought-resistant vegetation in landscaping areas to reduce energy needed to pump water.

4.5.3 Thresholds of Significance

The significance criteria used to evaluate the proposed Project's impacts on energy are based on the March JPA 2022 CEQA Guidelines (March JPA 2022). For the purposes of this energy analysis, a significant impact would occur if the Project would do either of the following (14 CCR 15000 et seq.):

ENG-1: Result in wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.

ENG-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.5.4 Impacts Analysis

Threshold ENG-1. Would the Project result in wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Implementation of the Specific Plan would increase the demand for electricity at the Project site, and petroleum consumption in the region during construction and operation. The Specific Plan Area would be all-electric, and consistent with **PDF-AQ-4** (No Natural Gas Use), as such no natural gas consumption would occur during Project operation.

Electricity

Construction Use. Temporary electric power for lighting and electronic equipment, such as computers, may be needed inside temporary construction trailers. The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project. The 2022 National Construction Estimator identifies a typical power cost per 1,000 sf of construction per month of $2.41, which was used to calculate the Project's total construction power cost (Pray 2022).

Based on information provided in Section 4.2, construction activities are anticipated to occur over the course of 32 months. The power cost was multiplied by the building square footage and the construction duration to determine the on-site electricity usage during the construction of the Project, which is estimated to be approximately $2,017,457.

Table 4.5-1. Construction Power Cost

Land Use	Power Cost (per 1,000 SF of construction per month)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
Building B: High-Cube Fulfillment	$2.41	1,250.000	52	$156,650.00
Building C: High-Cube Fulfillment	$2.41	587.000	52	$73,562.84
Remaining Industrial: High-Cube Fulfillment	$2.41	725.561	52	$90,927.30
High-Cube Cold Storage Warehouse	$2.41	500.000	52	$62,660.00
Business Park	$2.41	1,280.403	52	$160,460.10
Business Park (Mixed-Use, 75%)	$2.41	482.765	52	$60,500.11
Retail (Mixed-Use, 25%)	$2.41	160.921	52	$20,166.62
Active Park	$2.41	1,838.232	52	$230,367.23
Public Park	$2.41	787.564	52	$98,697.52
Balance	$2.41	8,486.000	52	$1,063,465.52
			Construction Power Cost	**$2,017,457.25**

Notes: Balance includes Public Facilities. The Active Park and Public Park size reflects overall site allocation in acres converted to square feet, which is conservative considering the reduced intensity of construction compared to the buildings.

SCE's general service rate schedule were used to determine the Project's electrical usage. As of January 1, 2022, SCE's general service rate is $0.13 per kilowatt hours (kWh) of electricity for industrial services (SCE n.d.). As shown

on Table 4.5-2, the total electricity usage from on-site Project construction related activities is estimated to be approximately 15,316,256 kWh.

Table 4.5-2. Construction Electricity Usage

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Building B: High-Cube Fulfillment	$0.13	1,189,265
Building C: High-Cube Fulfillment	$0.13	558,479
Remaining Industrial: High-Cube Fulfillment	$0.13	690,308
High-Cube Cold Storage Warehouse	$0.13	475,706
Business Park	$0.13	1,218,191
Business Park (Mixed-Use, 75%)	$0.13	459,308
Retail (Mixed-Use, 25%)	$0.13	153,102
Active Park	$0.13	1,748,916
Public Park	$0.13	749,298
Balance	$0.13	8,073,683
Construction Electricity Usage (Kwh)		***15,316,256***

Note:. Balance includes Public Facilities.

Operational Use. The operational phase would require electricity for multiple purposes, including building heating and cooling, lighting, appliances, and electronics.

The electricity consumption associated with the proposed Project would be approximately 45,863,514 kilowatt-hours per year (Appendix F), not accounting for mitigation measures. The building envelope; heating, ventilation, and air conditioning (HVAC) system; lighting; and other systems, such as electric motor equipment, would be designed to maximize energy performance. The Project is subject to statewide mandatory energy requirements as outlined in CCR Title 24, Part 6. CCR Title 24, Part 11, contains voluntary energy measures that are applicable to Project under CALGreen. Prior to issuance of building permits, March JPA would ensure that the Project would meet Title 24 requirements applicable at that time, as required by state regulations, through its plan review process. Project-consumed electricity is also subject to the cap-and-trade regulation. As such, the electricity consumption of the Project would not be considered inefficient or wasteful, and impacts would be considered **less than significant**.

With application of GHG **Mitigation Measure (MM) GHG-1**, installation of solar photovoltaic systems that would generate approximately 15,300,347 kilowatt-hours per year and the electricity consumption would be approximately 30,563,167 kilowatt-hours per year. Furthermore, the Project would include mitigation measure **MM-GHG-1**, install solar photovoltaic electricity generation to generate at least 30% of the Project's power requirements. The Project would also include the following energy reducing measures that were not quantified: **MM-GHG-2**, install Energy Star–certified light bulbs and light fixtures; **MM-GHG-3**, install duct insulation to a minimum level of and modestly enhanced window insulation consistent with the Riverside County CAP criteria; and **MM-GHG-4** Construction of modest cool roof, defined as Cool Roof Rating Council (CRRC) Rated 0.15 aged solar reflectance and 0.75 thermal emittance; Use of heating, ventilation, and air conditioning (HVAC) equipment with a season energy efficiency ratio (SEER) of 14 or higher; Installation of water heaters with an energy factor of .92 or higher; All rooms will have some form of daylighting (e.g., skylights or windows); At least 50% of artificial lighting unit fixtures will be high efficacy (see Section 4.7). The Project's energy requirements would not significantly affect local and regional supplies or require additional capacity. The Project's energy usage during peak and base periods would also be consistent with electricity future projections for the region.

Natural Gas

Construction Use. Natural gas is not anticipated to be required during construction of the Specific Plan Area. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the "petroleum" subsection. Any minor amounts of natural gas that may be consumed as a result of Specific Plan Area construction would be substantially less than that required for Project operation and would have a negligible contribution to the Specific Plan Area's overall energy consumption.

Operational Use. Although natural gas infrastructure would be installed to be consistent with March JPA General Plan Land Use Goal 16, the proposed Specific Plan Area would be all-electric and have no natural gas consumption, consistent with **PDF-AQ-4**. For these reasons, the natural gas consumption of the Project would not be considered inefficient or wasteful. There would be **no impact** on natural gas during operation.

Petroleum

Construction Use. Petroleum would be consumed throughout construction of the Specific Plan Area. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty equipment associated with construction activities would rely on diesel fuel. Construction workers would travel to and from the Project site throughout the duration of construction. It was assumed that construction workers would travel to and from the Project site in gasoline-powered vehicles.

Heavy-duty equipment of various types would be used during construction. CalEEMod was used to estimate construction equipment usage; results are included in Appendix F of this Draft EIR.

The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines. For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered which is consistent with industry standards. As presented in Table 4-5 of Appendix F, construction activities would consume an estimated 1,200,840 gallons of diesel fuel.

With respect to estimated VMT for the Specific Plan buildout, the construction worker trips would generate an estimated 24,289,668 VMT during the 52 months of construction. Based on CalEEMod methodology, it is assumed that 50% of all vendor trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1),[3] and 25% are from light-duty-trucks (LDT2).[4] Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within Appendix F.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources. EMFAC2021 was run for the LDA, LDT1, and LDT2 vehicle class within the Riverside County sub-area for the 2023

[3] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[4] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

through 2027 calendar years. Data from EMFAC2021 is shown in Appendix F. It is estimated that 851,467 gallons of fuel would be consumed related to construction worker trips during full construction of the Specific Plan buildout.

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) would generate an estimated 3,258,268 VMT along area roadways over the duration of construction activity. It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT) and 50% are from heavy-heavy duty trucks (HHDT). These assumptions are consistent with the CalEEMod defaults. Vehicle fuel efficiencies for MHDTs and HHDTs were estimated using information generated within EMFAC2021. EMFAC2021 was run for the MHDT and HHDT vehicle classes within the Riverside County sub-area for the 2023 through 2027 calendar years. Data from EMFAC2021 is shown in Appendix F.

Based on Table 4-8 of Appendix F, it is estimated that 450,251 gallons of fuel would be consumed related to construction vendor and hauling trips (MHDTs and HHDTs) during full construction of the Specific Plan Area.

The Specific Plan buildout is estimated to consume 1,200,496 gallons of petroleum during the 52-month construction phase. By comparison, approximately 57.5 billion gallons of petroleum would be consumed in California over the course of the construction phase based on the California daily petroleum consumption estimate of approximately 51 million gallons per day (CEC 2018). In Riverside County, it is estimated that on-road vehicles would use 4.8 billion gallons of petroleum and construction equipment would use 189 million gallons of petroleum during the construction period (CARB 2022). Therefore, because petroleum use during construction would be temporary and relatively minimal, and would not be wasteful or inefficient, impacts would be **less than significant,** and no mitigation is required.

Operational Use. The majority of fuel consumption resulting from the Specific Plan Area's operational phase would be attributable to motor vehicles traveling to and from the Specific Plan Area, and employee vehicles traveling around the Specific Plan Area. Similar to construction worker and vendor trips, fuel consumption for operation was estimated by converting the total CO_2 emissions from each land use type to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The passenger vehicles and truck fleet mix were provided in the Traffic Impact Analysis (Appendix N).

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Specific Plan Area. The VMT per vehicle class can be determined by evaluated in the vehicle fleet mix and the total VMT.

As with worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB. EMFAC2021 was run for the Riverside County (SC) area for the 2028 calendar year. Data from EMFAC2021 is shown in Appendix 4.3 of Appendix F.

As summarized in Appendix F, the Specific Plan Area would result in an annual VMT of 197,875,733 and an estimated annual fuel consumption of 8,550,693 gallons of fuel, not accounting for mitigation measures, such as installation of electric vehicle charging stations. Over the lifetime of the Project, the fuel efficiency of the vehicles being used by the employees is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the Specific Plan Area during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and zero-emissions vehicles in California (CARB 2013). Additionally, in response to SB 375, CARB

adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8% by 2020, and 18% by 2035 for light-duty passenger vehicles in the planning area for the Southern California Association of Governments. As such, operation of the Specific Plan Area is expected to use decreasing amounts of petroleum over time due to advances in fuel economy.

Although the Specific Plan Area would increase petroleum use during operation as a result of employees commuting to the site, the use would be a small fraction of the statewide and countywide use and due to efficiency increases, would diminish over time. The transportation energy supplies would be sufficient to serve the Specific Plan Area's peak energy consumptions, and the Specific Plan Area would comply with existing energy standards with regards to transportation fuel consumption. Given these considerations, petroleum consumption associated with the Specific Plan Area would not be considered inefficient or wasteful, and impacts would be **less than significant,** and no additional mitigation measures are required. Also, although not quantified herein, the Specific Plan Area would incorporate **MM-GHG-7,** installing a minimum of 20 electric vehicle charging stations, which would reduce the amount of fuel consumption by the Project. Additionally, mitigation measure **MM-AQ-9** requires the implementation of a transportation demand management program in accordance with SCAQMD Rule 2202 which may reduce petroleum use during operation.

Feasible Renewable Energy Features

Pursuant to **MM-GHG-1**, the Specific Plan Area would install approximately solar PV to offset approximately 30% of the overall energy demand. Additionally, **MM-GHG-2** through **MM-GHG-11**, as discussed in Section 4.7, are designed to reduce Specific Plan Area GHG emissions and they would also assist in the reduction of energy usage.

Conclusion

As supported by the preceding analyses, Specific Plan Area construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. The Specific Plan Area would therefore not cause or result in the need for additional energy producing or transmission facilities. Feasible renewable energy features have been incorporated into the Specific Plan Area. The Specific Plan Area would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. As such, impacts would be **less than significant**, and no additional mitigation measures are required. Additionally, mitigation measures **MM-GHG-1** through **MM-GHG-11** and **MM-AQ-9** would reduce energy use from beyond what was quantified herein.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No construction activities would occur within the Conservation Easement, and no change to existing conditions would occur. As such, **no impacts** with respect to energy would occur with the establishment of the Conservation Easement.

Threshold ENG-2. Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

The Specific Plan Area's consistency with the applicable state and local plans is discussed below.

Consistency with ISTEA

Transportation and access to the Project site is provided by the local and regional roadway systems. The Specific Plan would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Specific Plan Area.

Consistency with TEA-21

The Specific Plan Area is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Specific Plan Area facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Specific Plan supports the strong planning processes emphasized under TEA-21. The Specific Plan is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.

Consistency with IEPR

Electricity would be provided to the Specific Plan Area by SCE. SCE's *Clean Power and Electrification Pathway* (CPEP) white paper builds on existing state programs and policies. As such, the Specific Plan is consistent with, and would not otherwise interfere with, nor obstruct implementation the goals presented in the 2021 IEPR.

Additionally, the Specific Plan Area would comply with the applicable Title 24 standards which would ensure that the Specific Plan Area energy demands would not be inefficient, wasteful, or otherwise unnecessary. As such, development of the proposed Specific Plan would support the goals presented in the 2021 IEPR.

Consistency with State of California Energy Plan

The Specific Plan Area is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Specific Plan Area facilitates access and takes advantage of existing infrastructure systems. The Specific Plan therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.

Consistency with California Code Title 24, Part 6 and Part 11, Energy Efficiency Standards

The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020. It should be noted that the analysis herein assumes compliance with the 2019 Title 24 Standards. It should be noted that the CEC anticipates that nonresidential buildings would use approximately 30% less energy compared to the prior code. As such, the CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 30% in order to reflect consistency with the 2019 Title 24 standard. Similarly, the 2019 Title 24 Part 11, also known as CALGreen, was adopted by the CEC and became effective on January 1, 2020. The Specific Plan would not conflict with the Title 24 standards, as such impacts would **less than significant**. Additionally, mitigation measures **MM-GHG-1** through **MM-GHG-11** would ensure the Specific Plan Area's achievement of the mandatory and voluntary provisions within CALGreen.

Consistency with AB 1493

AB 1493 is not applicable to the Specific Plan Area as it is a statewide measure establishing vehicle emissions standards. No feature of the Specific Plan Area would interfere with implementation of the requirements under AB 1493.

Consistency with RPS

California's Renewable Portfolio Standard is not applicable to the Specific Plan Area as it is a statewide measure that establishes a renewable energy mix. No feature of the Specific Plan Area would interfere with implementation of the requirements under RPS.

Consistency with SB 350

The proposed Specific Plan Area would use energy from SCE, which has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. No feature of the Specific Plan Area would interfere with implementation of SB 350. Additionally, the Specific Plan Area would be designed and constructed to implement the energy efficiency measures for new industrial developments and would include several measures designed to reduce energy consumption.

As shown above, the Specific Plan would not conflict with any of the state or local plans. As such, a **less than significant impact** is expected.

Because the Specific Plan Area would comply with CCR Title 24, Part 6 and Part 11, no conflict with existing energy standards or regulations would occur. Therefore, impacts would be **less than significant**, and no additional mitigation measures would be required. Furthermore, Specific Plan design features, compliance with state and local regulations, and mitigation measures (**MM-GHG-1** through **MM-GHG-11**) would further reduce the Project's energy impacts.

Consistency with SCAG RTP/SCS

The SCAG RTP/SCS is a long-range transportation plan that is developed and updated by SCAG every four years. The RTP provides a vision for transportation investments throughout the region. The SCS will integrate land use and transportation strategies that will achieve GHG emissions reduction targets that are forecasted to achieve reduction in GHG emissions to achieve the state's 2035 and 2040 GHG reduction goals.

The Project lies entirely within Traffic Analysis Zone (TAZ) 43261100. The 2016-2040 RTP/SCS projects that within TAZ 43261100, there will be a total of 3,576 jobs by 2040. Adding jobs consistent with the 2016-2040 RTP/SCS projections supports SCAG's achievement of CARB emissions reductions targets.

The SCS also indicates that providing more jobs will actually reduce GHG emissions and reduce VMT as it will provide local jobs to achieve a more favorable jobs/housing balance and to reduce commutes for Riverside County residents. The proposed Project would increase regional employment by approximately 2,595 jobs. According to SCAG's 2020-2045 RTP/SCS, employment within Riverside County in 2019 is approximately 812,800 jobs with an anticipated increase to approximately 1,102,700 jobs by 2045, a growth of approximately 289,900 jobs. The proposed Project represents 0.90% of the anticipated increase in jobs, and therefore, would not result in long-term operational employment growth that exceeds planned growth projections in the RTP/SCS or the AQMP, or result in employment growth that would substantially add to traffic congestion.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No construction activities would occur within the Conservation Easement, and no change to existing conditions would occur. As such, **no impacts** with respect to energy would occur with the establishment of the Conservation Easement.

4.5.5 Mitigation Measures

Impacts to energy would be less than significant. Therefore, no additional mitigation measures are required.

4.5.6 Level of Significance After Mitigation

Since there would be no significant impacts requiring additional mitigation, residual impacts would be **less than significant.**

4.5.7 Cumulative Effects

Cumulative projects that could exacerbate the proposed Project's impacts include any projects that could result in wasteful, inefficient, or unnecessary use of energy (see Table 4-2 in Chapter 4, Environmental Analysis). Future projects would be subject to CEQA and would require an energy analysis, consistency with existing plans and policies for renewable energy and energy efficiency, and implementation of control measures and mitigation, if necessary to avoid wasteful, inefficient or unnecessary consumption of energy resources. The Project would result in an increase in electricity consumption, and the Project would be designed to maximize energy performance. Over the lifetime of the Project, the fuel efficiency of the vehicles used by the employees and commercial vehicles are expected to increase. CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and zero-emissions vehicles in California (CARB 2013). Additionally, in response to SB 375, CARB adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8% by 2020, and 18% by 2035 for light-duty passenger vehicles in the planning area for the Southern California Association of Governments. As such, operation of the Project is expected to use decreasing amounts of petroleum over time due to advances in fuel economy. As such, the amount of petroleum consumed as a result of vehicular trips to and from the Project site during operation would decrease over time. In summary, although the Project would increase petroleum use during operation as a result of employees commuting to the site, the use would be a small fraction of the statewide use and due to efficiency increases, would diminish over time. Therefore, the Project's contribution to cumulative impacts **would not be cumulatively considerable** and cumulative impacts to energy use would be **less than significant**. Furthermore, the Project would minimize construction and operational activities through energy reduction strategies pursuant to the Project's **MM-GHG-1** through **MM-GHG-11** (see Section 4.7).

4.5.8 References Cited

California Gas and Electric Utilities (Southern California Gas Company, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southwest Gas Corporation, City of Long Beach Gas & Oil Department, and Southern California Edison Company). 2016. *2016 California Gas Report*. Accessed December 2018. https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf.

CARB (California Air Resources Board). 2011. "Facts About the Advanced Clean Cars Program." November 9, 2011. Accessed December 2018. http://www.arb.ca.gov/msprog/zevprog/factsheets/advanced_clean_cars_eng.pdf.

CARB. 2013. "Clean Car Standards – Pavley, Assembly Bill 1493." May 6, 2013. Accessed December 2018. http://arb.ca.gov/cc/ccms/ccms.htm.

CARB. 2022. EMFAC. Accessed May 2022. https://arb.ca.gov/emfac/.

CEC (California Energy Commission). 2018. "2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings." December 2018. https://www.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf.

CEC. 2020. *Final 2019 Integrated Energy Policy Report*. January 2020. file:///C:/Users/swang/Downloads/TN231883_20200131T140541_Final%202019%20Integrated%20Energy%20Policy%20Report-%20Clean%20Version.pdf.

CEC. 2021. 2020 Power Content Labe Southern California Edison. Accessed May 2022. https://www.energy.ca.gov/filebrowser/download/3902.

CEC. 2022. 2022 Building Energy Efficiency Standards. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency.

County of Riverside. 2019. *Updated Riverside County Climate Action Plan*. December 17, 2019.

CPUC (California Public Utilities Commission). 2021. 2021 California Renewables Portfolio Standard Annual Report. November. Accessed October 2022. https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/documents/energy/rps/cpuc-2021-rps-annual-report-to-legislature.pdf.

EIA (U.S. Energy Information Administration). 2018. "California State Energy Profile." Last updated November 15, 2018. Accessed March 2019. https://www.eia.gov/state/print.php?sid=CA.

EIA. 2022a. "State Electricity Profiles – California Electricity Profile 2020." Accessed May 2022. https://www.eia.gov/electricity/state/california/index.php.

EIA. 2022b. "Natural Gas Consumption by End Use." Accessed May 2022. https://www.eia.gov/dnav/ng/ng_cons_sum_a_EPG0_VC0_mmcf_a.htm.

EPA (U.S. Environmental Protection Agency). 2017. "Overview for Renewable Fuel Standard." Last updated June 7, 2017. Accessed February 2019. https://www.epa.gov/renewable-fuel-standard-program/overview-renewable-fuel-standard.

EPA and NHTSA (National Highway Traffic Safety Administration). 2018. *The Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks*. August 24, 2018. https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-0756.

March JPA (Joint Powers Authority). 1999. *General Plan of the March Joint Powers Authority*. https://marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

March JPA. 2022. *Local Guidelines for Implementing the California Environmental Quality Act for March Joint Powers Authority and March Inland Port Airport Authority and Successor Agency of the Former March Joint Power Redevelopment Agency and March Joint Powers Utilities Authority*. https://www.marchjpa.com/documents/docs_forms/05172022_MJPA_2022_CEQA_Guidelines.pdf.

NHTSA (National Highway Traffic Safety Administration). 2020. SAFE: The Safer Affordable Fuel-Efficient 'SAFE' Vehicle Rule. *National Highway Traffic Safety Administration.* March 31, 2020. Accessed July 2020. https://www.nhtsa.gov/corporate-average-fuel-economy/safe.

Pray, R. 2022. 2022 National Construction Estimator. Carlsbad: Craftsman Book Company.

SCE (Southern California Edison). n.d. Schedule GS-1 General Service. Regulatory Information – Rates Pricing. https://library.sce.com/content/dam/sce-doclib/public/regulatory/tariff/electric/schedules/general-service-&-industrial-rates/ELECTRIC_SCHEDULES_GS-1.pdf.

4.6 Geology and Soils

This section describes the existing geology and soils conditions of the proposed West Campus Upper Plateau Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to the implementation of the Project. The following analysis is based in part upon the following documents:

- Geotechnical Exploration, Proposed Meridian West Campus Upper Plateau, East of La Crosse Street and South of Camino Del Sol, prepared by Leighton Consulting, Inc. in December 2022, included as Appendix G of this EIR
- Paleontological Resources Assessment Report, included as Appendix H of this EIR
- County of Riverside General Plan Safety Element (County of Riverside 2021)
- General Plan of the March Joint Powers Authority, Safety/Risk Management Element (March JPA 1999)

Other sources consulted are listed in Section 4.6.8, References Cited.

As discussed in detail in Chapter 3, Project Description of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biodiversity (CBD) Settlement Agreement (Appendix S).

4.6.1 Existing Conditions

Regional Geology

The Project site is located within a prominent geomorphic province in southwestern California known as the Peninsular Ranges. This province is characterized by steep, elongated ranges and valleys that trend northwestward. More specifically, the proposed Project site is located within the relatively stable Perris Block of the Peninsular Ranges. The Perris Block, approximately 20 miles by 50 miles in extent, is bounded by the San Jacinto Fault Zone to the northeast, and the Elsinore Fault Zone to the southwest. The Perris Block has had a complex tectonic history, undergoing relative vertical land movements of several thousand feet in response to movement on the Elsinore and San Jacinto Fault Zones. Within the general site vicinity, thin residual sedimentary

and volcanic materials mantle crystalline bedrock, consisting of the Val Verde Tonalite and lesser amounts of Cretaceous granitic dikes (Appendix G).

Site Topography

The topography of the Project site consists of low rolling hills, with undulating topography. Site elevations range from 1,765 feet above mean sea level (amsl) in the central portion to 1,645 feet amsl in the northeast portion of the site. Drainage is generally from the elevated central portion of the site to the perimeters, through natural drainage features incised into the rolling hills (Figure 4.6-1, Existing Topography) (Appendix G).

Earth Materials

Based on a geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project, which included test pits and soil borings, on-site materials include the following units: undocumented artificial fill, residual soil/topsoil, colluvium, and alluvium, overlying granitic Val Verde Tonalite (Appendix G). Descriptions of these geologic units are described below:

Undocumented Artificial Fill

Although not encountered during exploratory test pits and borings, undocumented fill is likely present in the form of roadway embankments, previous utility trench backfill, and fill associated with the various on-site structures. These fill soils would have been generated from site excavations.

Residual Soil/Topsoil

Residual soil materials mantle the majority of the Project site. The topsoil generally consists of a thin surface layer (up to 5 feet below ground surface [bgs]) of generally light to grayish brown, silty sand, and clayey sand. The soils are generally porous, relatively loose, and likely have a low expansion potential.

Colluvium

Colluvium was encountered in test pits and borings in the gently sloping portion of the Project site, extending to depths of approximately 3 to 9 feet bgs. These soils generally consist of relatively porous, silty to clayey sand, with a probable low to very low expansion potential.

Alluvium

Recent alluvial deposits are present within drainages and low-lying portions of the Project site. Where encountered during exploratory test pits and borings, the alluvium generally extends to a depth of 6 feet bgs. These soils are relatively porous, clayey sand to sandy clay, with a probable very low to low expansion potential.

Val Verde Tonalite

Val Verde Tonalite (Cretaceous granite) is present near the surface across the majority of the Project site. This bedrock material varies in integrity from completely disintegrated rock, which has become a dense soil-like deposit, to moderately weathered rock. Where encountered, the bedrock is generally massive and is expected to range from readily rippable (easily excavated) to non-rippable (cannot be excavated), depending on the degree of weathering. Excavation of less weathered granitic rock is anticipated to generate sand, gravel, cobble, and possibly oversize

boulders. The latter requires special placement methods of infill during grading. However, the excavation of the weathered bedrock is anticipated to produce fine to coarse sand, with silt and gravel size rock fragments, which is generally suitable for re-use as compacted fill.

Seismicity

Similar to all of southern California, the Project site is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The nearest active faults are the San Bernardino segment of the San Jacinto Fault Zone, located approximately 8.8 miles northeast of the site, and the San Jacinto Valley Segment of the San Jacinto Fault Zone, located approximately 8.9 miles east of the site. Based on proximity to these and other regional active faults, strong ground shaking can be expected at the site during moderate to severe earthquakes in the general region. Seismically induced ground shaking can induce secondary seismic hazards such as liquefaction, lateral spreading, dynamic densification, and collapsible soils. Intensity of ground shaking at a given location depends primarily upon earthquake magnitude, site distance from the source, and site response (soil type) characteristics. Based on the geotechnical explorations and review conducted by Leighton Consulting in 2021 for the proposed Project, the site is underlain by weathered granitic bedrock (Appendix G).

Liquefaction/Lateral Spreading/Dynamic Settlement

Liquefaction occurs primarily in saturated, loose, fine- to medium-grained soils in areas where the groundwater table is within approximately 50 feet of the surface. Shaking causes the soils to lose strength and behave like a liquid. Excess water pressure is vented upward through fissures and soil cracks and can also result in a water-soil slurry flowing onto the ground surface. Liquefaction-related effects include loss of bearing strength, ground oscillations, lateral spreading, and flow failures or slumping (County of Riverside 2021).

Lateral spreading is the lateral movement of gently to steeply sloping saturated soil deposits that are caused by earthquake-induced liquefaction. As ground acceleration and shaking duration increase during an earthquake, liquefaction potential increases. Dynamic settlement is a form of shallow foundation settlement resulting from liquefaction and/or dry settlement.

The California Geological Survey (CGS) has not evaluated the liquefaction potential for the Riverside East Quadrangle, in which the Project site is located. Similarly, the County of Riverside General Plan Safety Element, Figure 2, Liquefaction Zones, only reflects areas of potential liquefaction identified by the CGS (County of Riverside 2021). However, the March JPA General Plan Safety/Risk Management Element indicates that the potential for liquefaction and seismically induced dynamic settlement of soils is low within the March JPA planning area. The relatively dense and cohesive nature of the underlying alluvium and the lack of a shallow regional water table, results in a low susceptibility of seismically induced hazards (March JPA 1999).

Six geotechnical borings were drilled on-site to depths varying from 27 feet to 50 feet. Groundwater was only encountered in one boring, at a depth of 48 feet. Groundwater was also encountered during previous grading of the western terminus of Cactus Avenue, for Meridian West Lower Plateau. The groundwater encountered within the tonalite bedrock is associated with a joint/fracture system. Due to the general lack of shallow groundwater and relatively dense nature of the underlying materials, liquefaction, lateral spreading, and dynamic settlement are not considered potential geologic hazards (Appendix G).

Landslides

Slope failures include many phenomena that involve the downslope displacement and movement of material, triggered either by gravity or seismic forces. Exposed bedrock slopes may experience rockfalls, rockslides, rock avalanches, and deep-seated rotational slides, and soil slopes may experience soil slumps and rapid debris flows. Slope stability can depend on a number of complex variables, including the geology, structure, and amount of groundwater, as well as external processes such as climate, topography, slope geometry, and human activity. The factors that contribute to slope movements include those that decrease the resistance in the slope materials and those that increase the stresses on the slope. Slope failure can occur on slopes of 15% or less, but the probability is greater on steeper slopes that exhibit old landslide features such as scarps, slanted vegetation, and transverse ridges.

The CGS has not evaluated the seismically induced landslide potential for the Riverside East Quadrangle in which the Project is located. In addition, as indicated by the County of Riverside Safety Element, Figure 3, Landslide Risk (County of Riverside 2021), the County of Riverside has not evaluated the landslide potential for the Project site. However, based on the geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G), there was no evidence of on-site landslides, debris flows, or thick surficial deposits typically associated with landslides. As such, the potential for on-site landslides is considered low.

Collapsible Soils

Collapsible or compressible soils typically occur in recently deposited Holocene soils that were deposited in an arid or semi-arid environment. Soils prone to collapse are commonly associated with human-deposited fill, wind-laid sands, silts, alluvial fan sediments, and mudflow sediments deposited during flash floods. These soils typically contain minute pores and voids. The soil particles may be partially supported by clay or silt, or chemically cemented with carbonates. When saturated, collapsible soils undergo a rearrangement of their grains, and the water removes the cohesive (or cementing) material, resulting in a rapid substantial settlement. An increase in surface water infiltration, such as from irrigation, or a rise in the groundwater table, combined with the weight of a building or structure, can initiate settlement and cause foundations and walls to crack. In the County of Riverside, collapsible soils occur predominantly at the base of the mountains, where loose, Holocene-age alluvial fan and wash sediments have been deposited during rapid runoff events. In addition, some windblown sands may be vulnerable to collapse and hydroconsolidation. Typically, differential settlement of structures occurs when lawns or plantings are heavily irrigated in proximity to the structure's foundation (County of Riverside 2021).

Although the Project site is not located at the base of a mountain, residual soil, alluvium, and colluvium are present on site. The near surface soils, including residual soils/colluvium and alluvium) are potentially compressible in their present state. Laboratory testing indicates that these on-site soils are expected to possess a slight collapse potential (Appendix G).

Subsidence

Subsidence is the permanent collapse of the pore space within a soil or rock and downward settling of the earth's surface relative to its surrounding area. Subsidence can result from the extraction of water or oil, the addition of water to the land surface—a condition called "hydrocompaction," or peat loss. The compaction of subsurface sediment caused by the withdrawal or addition of fluids can cause subsidence. Land subsidence can disrupt surface drainage; reduce aquifer storage; cause earth fissures; damage buildings and structures; and damage wells, roads, and utility infrastructure. In Riverside County, subsidence and fissuring have been caused by falling groundwater tables and by hydrocollapse when groundwater tables rise (County of Riverside 2021). The Project site is underlain

by granitic bedrock with only very limited fracture-related groundwater. Therefore, the potential for subsidence at the site is very low. In addition, according to the USGS Survey Areas of Land subsidence in California map, there have been no recorded instances of subsidence at the Project site associated with groundwater pumping, peat loss, or oil extraction (USGS 2021).

Expansive Soil

Expansive soils are soils that expand when water is added and shrink when dry. This continuous change in soil volume can cause foundations to move unevenly and crack. Limited laboratory testing indicated that on-site soils generally possess a very low expansion potential. However, localized deposits of residual soils may possess low expansion potential (Appendix G).

Paleontological Resources

As discussed in detail in Appendix H, regionally, the Project site lies within the Perris Block, a fault-bounded crustal block bounded on the west by the Elsinore Fault Zone and on the east by the San Jacinto Fault Zone. The geology mapped at the Project site is mostly underlain by the Cretaceous-aged Val Verde tonalite, a type of crystalline plutonic rock related to granite. Scattered linear outcrops of Cretaceous granite dikes, Paleozoic biotite schist, and mixed-provenance crystalline rocks of pre-Cenozoic age are mapped as surrounded by the Val Verde tonalite within the Project vicinity. At the far eastern portion of the Project site, lower Pleistocene fan deposits are mapped.

4.6.2 Relevant Plans, Policies, and Ordinances

Federal

Occupational Safety and Health Administration Regulations

Excavation and trenching are among the most hazardous construction operations. OSHA Excavation and Trenching Standard, Title 29 of the Code of Federal Regulations, Part 1926, Subpart P, covers requirements for excavation and trenching operations. OSHA requires that all excavations in which employees could potentially be exposed to cave-ins be protected by sloping or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area.

State

California Building Standards Code

The state regulations protecting structures from geo-seismic hazards are contained in the California Building Code (CBC) (24 CCR Part 2), which is updated on a triennial basis. These regulations apply to public and private buildings in the state. Until January 1, 2008, the CBC was based on the then-current Uniform Building Code and contained additions, amendments, and repeals specific to building conditions and structural requirements of the State of California. The 2019 CBC, effective January 1, 2020, is based on the 2018 International Building Code and enhances the sections dealing with existing structures. Seismic-resistant construction design is required to meet more stringent technical standards than those set by previous versions of the CBC.

Chapters 16 and 16A of the 2019 CBC include structural design requirements governing seismically resistant construction, including (but not limited to) factors and coefficients used to establish seismic site class and seismic

occupancy category for the soil/rock at the building location and the proposed building design. Chapters 18 and 18A include the requirements for foundation and soil investigations (Sections 1803 and 1803A); excavation, grading, and fill (Sections 1804 and 1804A); damp-proofing and water-proofing (Sections 1805 and 1805A); allowable load-bearing values of soils (Sections 1806 and 1806A); the design of foundation walls, retaining walls, embedded posts and poles (Sections 1807 and 1807A), and foundations (Sections 1808 and 1808A); and design of shallow foundations (Sections 1809 and 1809A) and deep foundations (Sections 1810 and 1810A). Chapter 33 of the 2019 CBC includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes (Section 3304).

Construction activities are subject to occupational safety standards for excavation and trenching, as specified in the California Safety and Health Administration regulations (Title 8 of the California Code of Regulations) and in Chapter 33 of the CBC. These regulations specify the measures to be used for excavation and trench work where workers could be exposed to unstable soil conditions. The Project would be required to employ these safety measures during excavation and trenching.

California Health and Safety Code

Sections 17922 and 17951–17958.7 of the California Health and Safety Code require cities and counties to adopt and enforce the current edition (2019) of the CBC, including a grading section. Sections of Volume II of the CBC specifically apply to select geologic hazards.

California Occupational Safety and Health Administration Regulations

In California, California OSHA (Cal/OSHA) has responsibility for implementing federal rules relevant to worker safety, including slope protection during construction excavations. Cal/OSHA's requirements are more restrictive and protective than federal OSHA standards. Title 8 of the California Code of Regulations, Chapter 4, Division of Industrial Safety, covers requirements for excavation and trenching operations, as well as safety standards whenever employment exists in connection with the construction, alteration, painting, repairing, construction maintenance, renovation, removal, or wrecking of any fixed structure or its part.

Local

March Joint Powers Authority General Plan

Resource Management Element

The March joint Powers Authority (JPA) General Plan Resource Management Element outlines conservation programs associated with resource utilization, preservation techniques, and the regulation of activities that affect or preclude the utilization of resources, including open space. Within the March JPA planning area, open space includes rock outcropping hillside areas, which limit development. The Resource Management Element complies with regulations in Section 65302(d) and 65302(e) of the California Government Code and the Surface Mining and Reclamation Act (Public Resources Code Section 2710 et seq.). According to these requirements, this Element must contain goals and policies that further the protection and maintenance of the state's natural resources, including water, soils, and minerals, and prevent wasteful exploitation, degradation, and destruction of those resources. The Resource Management Element identifies local resources within the March JPA planning area and establishes a plan for conservation, management, or preservation of those resources.

The following goal and policies address the geologic resources within the March JPA planning area that can become strained as development creates a greater demand on significant natural features (March JPA 1999):

Goal 3: Conserve and protect significant landforms, important watershed areas, mineral resources, and soil conditions.

Policy 3.1: Conserve hillsides and rock outcroppings in the planning area through the use of master-planned developments which create "campus-like" setting, and encourage the creative siting of building areas as a means of retaining natural areas and open space.

Policy 3.2: Encourage the use of contour grading methods when grading of hillsides.

Policy 3.3: Conserve mineral resources, if any are identified by the State Mining and Geology Board, by limiting or phasing development in the areas of the most desirable mineral extraction sites.

Policy 3.4: Reclaimed land impacted by mining shall be in accordance with the State Surface Mining and Reclamation Act.

Policy 3.5: Require and practice proper soil management techniques to reduce erosion, sedimentation and other soil-related problems.

Policy 3.6: Control erosion during and following construction through proper grading techniques, vegetation replanting, and the installation of proper drainage control improvements.

Policy 3.7: Require erosion control measures such as binders, revegetation, slope covers, and other practices which reduce soil erosion due to wind and water.

Policy 3.8: Protect important mineral resources, prominent and geological features by maintaining their locations in open space or through a protected status.

Safety/Risk Management Element

The Safety/Risk Management Element of the March JPA General Plan presents a March JPA planning area-wide approach for preventing the creation of hazards in the planning area and for minimizing the potential for injury, damage, and disruption brought by natural and human-made catastrophes and emergencies. The Element maps the location of known hazard areas and establishes safety standards and programs to protect life and property. Public safety standards include guidelines for activities involving risk to the public and measures to follow when development occurs in areas susceptible to natural or human-made hazards.

Seismic and Geologic Hazards

The following goal and policies address the prevention of seismic and geologic hazards within the planning area:

Goal 1*:* Minimize injury and loss of life, property damage, and other impacts caused by seismic shaking, fault rupture, ground failure, and landslides.

Policy 1.1: Require geological and geotechnical investigations in areas of potential seismic or geologic hazards as part of the environmental and development review process. Require mitigation of seismic or geologic hazards to the satisfaction of the responsible agencies.

Policy 1.2: Ensure all grading plans comply with the Uniform Building Code (UBC) and California Building Code including, if necessary, requiring preliminary investigations of development sites by a State-registered geotechnical engineers and certified engineering geologists.

Policy 1.3: If necessary, require liquefaction assessment in studies in any area identified as having moderate to high liquefaction susceptibility.

Policy 1.4: Support earthquake strengthening and provisions for alternative or back-up essential services, such as water, sewer, electricity, and natural gas pipelines and connections, especially in areas of high seismic or geologic hazards.

Hillside Management

The following goal and policies address the preservation of natural topography:

Goal 2: Minimize grading and otherwise changing the natural topography, while protecting the public safety and property from geologic hazards.

Policy 2.1: Discourage any grading beyond that which is necessary to create adequate building pad area.

Policy 2.2: Discourage excessive grading of slopes greater than 3:1 (three horizontal to one vertical), but where allowed, encourage varied slope ratios on design slopes to reduce the visual impact of grading.

March Joint Powers Authority Development Code

The March JPA Development Code includes standards, guidelines, and procedures to protect and promote the public health, safety, convenience, and welfare of present and future citizens of Riverside County and of the member jurisdictions of the March JPA. In accordance with Section 9.01.020, Authority of the Development Code, the authority of the regulations contained in the Development Code is based on the provisions of the California Planning and Zoning Law (Division 1 of Title 7 of the California Government Code), which provide for the regulation of the intensity of land use and adoption of standards for the regulation of population density. 9.17.100 (Erosion Control/Slope Planting). 9.02.030(B)(1)(j). Grading Plan Development Standard – proposed Specific Plan 6.8.1.

4.6.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts related to geology and soils are based on the following 2022 March JPA California Environmental Quality Act (CEQA) Guidelines. A project would result in significant impacts if it would (March JPA 2022):

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
   ii) Strong seismic ground shaking.
   iii) Seismic-related ground failure, including liquefaction.
   iv) Landslides.
b) Result in substantial soil erosion or the loss of topsoil.
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Through the analysis provided in the Initial Study prepared for the Project (refer to Appendix A), it was determined that the Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death related to rupture of a known earthquake fault. In addition, the Initial Study concluded that the Project would not result in substantial soil erosion or loss of topsoil, or have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Accordingly, these issues are not analyzed in this section of the EIR.

For the purposes of this analysis, a significant impact would occur if the Project would:

GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
   i) Strong seismic ground shaking
   ii) Seismic-related ground failure, including liquefaction.
   iii) Landslides.

GEO-2: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

GEO-3: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

GEO-4: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

4.6.4 Impacts Analysis

Threshold GEO-1. ***Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:***

a) Strong seismic ground shaking?

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. Based on proximity to regional active faults, strong ground shaking can be expected at the Project site during moderate to severe earthquakes in the general region. The proposed Project would be required to comply with the then current CBC, which includes requirements to ensure that new development would not cause or exacerbate geological and soil hazards. The 2019 CBC design parameters are specifically tailored to minimize the risk of structure failure due to seismic hazards and include a requirement for a standard, site-specific geotechnical (also known as a soils investigation) report, as part of the building permit process (CBC Chapter 18 and 18A). A preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project is included as Appendix G of this EIR. In accordance with the CBC, the geotechnical report provides specific recommendations related to soils and seismic engineering, including recommendations for remedial grading, foundation design, and retaining walls, thus minimizing the potential for structural distress as a result of seismically induced ground shaking. In addition, a final geotechnical report would be completed for individual Project buildings, based on the final building design.

Compliance with CBC requirements would minimize the potential for structural damage during an earthquake. The JPA's plan check and building inspection procedures would ensure that the Upper Plateau Campus is constructed according to CBC standards, including the recommendations provided in the geotechnical report. Furthermore, development of the proposed Project would not directly or indirectly cause or exacerbate adverse effects involving strong seismic ground shaking. Individual Project buildings would be designed to current CBC regulations, with respect to seismic engineering and would therefore be considered seismically safe. Constructing new structures within an earthquake-prone area would not, in and of itself, increase seismic risks to surrounding uses. Therefore, impacts would be **less than significant**, and no mitigation is required.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. Similar to the Campus Development, grading and construction of the park and ancillary facilities, such as restrooms and parking areas, would be completed in accordance with the preliminary geotechnical

investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G), as well as in compliance with the CBC and the JPA's plan check and building inspection procedures. In addition, a final geotechnical report would be completed for individual Park buildings and related infrastructure, based on the final Park design. Development of the proposed Park would not directly or indirectly cause or exacerbate adverse effects involving strong seismic ground shaking. Construction and operation of the Park would not increase seismic risks to surrounding uses. Therefore, impacts would be **less than significant**, and no mitigation is required.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank. Similar to the Campus Development, grading and construction of the infrastructure improvements would be completed in accordance with the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project(Appendix G), as well as in compliance with the CBC and the JPA's plan check and building inspection procedures. In addition, a final geotechnical report would be completed for individual infrastructure improvements, based on the final infrastructure design. Construction and operation of the infrastructure improvements would not directly or indirectly cause or exacerbate adverse effects involving strong seismic ground shaking, or increase seismic risks to surrounding uses. Therefore, impacts would be **less than significant**, and no mitigation is required.

Conservation Easement

The March JPA and the developer propose to establish a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the land within Conservation Easement is anticipated, there would be **no impact** with respect to strong seismic ground shaking.

b) Seismic-related ground failure, including liquefaction?

Specific Plan Area

Campus Development

As discussed in Section 4.6.1, Existing Conditions, due to the general lack of shallow groundwater and relatively dense nature of the underlying materials, liquefaction, lateral spreading, and dynamic settlement are not considered potential geologic hazards. In addition, as discussed in Threshold GEO-1-I, individual Project building construction would be in compliance with the then current CBC, which currently includes provisions to ensure that new development would not cause or exacerbate geological and soil hazards, including liquefaction, lateral spreading, and dynamic settlement. These provisions would include incorporation of recommendations of the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G), which would minimize the potential for structural damage during an earthquake. In addition, a final geotechnical report would be completed for individual Project buildings, based on the final building design. Furthermore, development of the proposed Project would not foreseeably cause ground failure or result in liquefaction, or directly or indirectly cause or exacerbate adverse effects involving seismic related ground failure, including liquefaction. Therefore, impacts would be **less than significant**, and no mitigation is required.

Park

Similar to the Campus Development, grading and construction of the Park and ancillary facilities, such as restrooms and parking areas, would be completed in accordance with the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G), as well as in compliance with the CBC and the JPA's plan check and building inspection procedures. In addition, a final geotechnical report would be completed for individual Park buildings and related infrastructure, based on the final Park design. Development of the proposed Park would not foreseeably cause ground failure or result in liquefaction, or directly or indirectly cause or exacerbate adverse effects involving seismic related ground failure, including liquefaction. Therefore, impacts would be **less than significant**, and no mitigation is required.

Infrastructure Improvements

Similar to the Campus Development, grading and construction of the infrastructure improvements would be completed in accordance with the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G), as well as in compliance with the CBC and the JPA's plan check and building inspection procedures. In addition, a final geotechnical report would be completed for individual infrastructure improvements, based on the final infrastructure design. Construction and operation of the infrastructure improvements would not foreseeably cause ground failure or result in liquefaction, or directly or indirectly cause or exacerbate adverse effects involving seismic related ground failure, including liquefaction. Therefore, impacts would be **less than significant**, and no mitigation is required.

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to seismic related ground failure, including liquefaction.

c) Landslides?

Specific Plan Area

Campus Development

As previously discussed in Section 4.6.1, Existing Conditions, neither CGS nor the County of Riverside has evaluated the landslide potential within or near the Project area. However, the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G) revealed no indications of slope instability and no evidence of on-site landslides, debris flows, or rock falls. Therefore, the Campus Development would not be located in an area susceptible to landslides. However, Project grading would result in the creation of cuts up to 50 feet deep and fills up to 55 feet to create finish site grades (Appendix G). Potential over steepening of temporary slopes during grading or improper construction of finish cut and fill slopes up to 30 feet could potentially result in slope failure/collapse. In addition, slope faces in highly weathered bedrock are inherently subject to erosion, particularly if exposed to rainfall and irrigation. Each of these scenarios could result in potentially significant impacts related to slope stability. However, with incorporation of **Mitigation Measure (MM) GEO-1**, which includes measures to reduce the potential for slope instability during grading and construction, impacts would be **less than significant with mitigation.**

Park

Similar to the Campus Development, grading for the Park and ancillary facilities, such as restrooms and parking areas, could result in the creation of large cut and fill slopes to create finish site grades. Potential over steepening of temporary slopes during grading or improper construction of finish cut and fill slopes could potentially result in slope failure/collapse. In addition, slope faces in highly weathered bedrock are inherently subject to erosion, particularly if exposed to rainfall and irrigation. Each of these scenarios could result in potentially significant impacts related to slope stability. However, with incorporation of **MM-GEO-1**, as described above, impacts would be **less than significant with mitigation.**

Infrastructure Improvements

Similar to the Campus Development, grading for the new sewer lift station, electrical substation, and new 0.5 MG reclaimed water tank could result in the creation of large cut and fill slopes to create finish site grades. Potential over steepening of temporary slopes during grading or improper construction of finish cut and fill slopes could potentially result in slope failure/collapse. In addition, slope faces in highly weathered bedrock are inherently subject to erosion, particularly if exposed to rainfall and irrigation. Each of these scenarios could result in potentially significant impacts related to slope stability. However, with incorporation of **MM-GEO-1**, as described above, impacts would be **less than significant with mitigation.**

Conservation Easement

The March JPA and the developer propose to establish a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the land within the Conservation Easement is anticipated, there would be **no impact** with respect to landslides.

Threshold GEO-2. ***Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site lateral spreading, subsidence, liquefaction or collapse?***

Specific Plan Area

Campus Development

As discussed for Threshold GEO-1-ii, due to the general lack of shallow groundwater and relatively dense nature of the underlying materials, liquefaction and associated lateral spreading, are not considered potential geologic hazards at the Project site. There have been no recorded instances of subsidence at the Project site associated with groundwater pumping, peat loss, or oil extraction. Furthermore, construction of the Project would not foreseeably cause soil instability or directly or indirectly cause or exacerbate adverse effects involving liquefaction, lateral spreading, and subsidence. As a result, impacts associated with liquefaction, lateral spreading, and subsidence would be **less than significant**, and no mitigation is required.

Near surface soils, including residual soils/colluvium and alluvium, are potentially compressible in their present state and laboratory testing indicates that on-site soils are expected to possess a slight collapse potential. As a result, proposed overlying fills and foundations may settle. As required by the CBC, Project grading and construction for individual buildings would be completed in accordance with recommendations of the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G). These recommendations include removal of compressible/collapsible soils in all settlement-sensitive areas, including

building pads, pavement, and slopes. The depth of the removal should extend into underlying dense bedrock, but generally not to exceed a depth of 3 to 9 feet. Areas of over-excavation would be backfilled with engineered (i.e., compacted) fill, such that these areas would be structurally stable. In addition, any additional recommendations related to collapsible/compressible soils included in the final geotechnical report for individual Project buildings, would be adhered to during construction. As a result, impacts associated with collapsible/compressible soils would be **less than significant**, and no mitigation is required.

Preliminary grading plans indicate that site grading would result in cuts up to 50 feet deep and fills up to 55 feet, plus remedial grading, where applicable (Appendix G). As previously discussed, granite bedrock is present near the surface across the majority of the Project site. This bedrock material varies in integrity from completely disintegrated rock, which has become a dense soil-like deposit, to moderately weathered rock. Where encountered, the bedrock is generally massive and is expected to range from readily rippable (easily excavated) to non-rippable (cannot be excavated), depending on the degree of weathering. Localized marginally rippable to unrippable rock would likely be encountered in the areas of excavations deeper than 25 feet. However, unrippable rock may exist at depth of 15 to 25 feet bgs in some areas of the site. As a result, blasting may be required depending on the excavation, depth, location, equipment used, and desired rate of production. Blasting could potentially result in temporary oversteepened, unstable slopes, which could be prone to failure, resulting in potentially significant impacts. However, with incorporation of **MM-GEO-1**, which includes measures to reduce the potential for slope instability during grading and construction, impacts would be **less than significant with mitigation.**

Park

Similar to the Campus Development, grading and construction of the Park and ancillary facilities, such as restrooms and parking areas, would be completed in accordance with the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G), as well as in compliance with the CBC and the JPA's plan check and building inspection procedures. In addition, a final geotechnical report would be completed for individual Park buildings and related infrastructure, based on the final Park design. Development of the proposed Park would not foreseeably result in significant impacts related to on- or off-site lateral spreading, subsidence, liquefaction or collapsible/compressible soils. However, blasting could potentially result in temporary oversteepened, unstable slopes, which could be prone to failure, resulting in potentially significant impacts. With incorporation of **MM-GEO-1**, as described above, impacts would be **less than significant with mitigation.**

Infrastructure Improvements

Similar to the Campus Development, grading and construction of the infrastructure improvements would be completed in accordance with the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G), as well as in compliance with the CBC and the JPA's plan check and building inspection procedures. In addition, a final geotechnical report would be completed for individual infrastructure improvements, based on the final infrastructure design. Infrastructure improvements would not foreseeably result in significant impacts related to on- or off-site lateral spreading, subsidence, liquefaction or collapsible/compressible soils. However, blasting could potentially result in temporary oversteepened, unstable slopes, which could be prone to failure, resulting in potentially significant impacts. With incorporation of **MM-GEO-1**, as described above, impacts would be **less than significant with mitigation.**

Conservation Easement

The March JPA and the developer propose to establish a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the land within the Conservation Easement is anticipated, there would be **no impact** with respect to lateral spreading, subsidence, liquefaction, collapsible/compressible soils, or unstable slopes following blasting.

Threshold GEO-3. Would the Project be located on expansive soil, as defined in Section 1803A.5.3, Expansive Soil, of the CBC (2019), creating substantial risks to life or property?

Specific Plan Area

Campus Development

Based on a series of soil test parameters, including the plasticity index, grain size, and expansion index, established under Section 1803A.5.3, Expansive Soil, of the 2019 CBC, limited laboratory testing indicated that on-site soils generally possess a very low expansion potential. However, localized deposits of residual soils may possess low expansion potential. The proposed Campus Development would be required to comply with the then current CBC, which currently includes requirements to minimize the potential for substantial risks to life or property due to expansive soils. In addition, the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G) includes recommendations to address potentially expansive soils during grading and construction. Compliance with these recommendations, as required by the CBC, would minimize the potential for structural damage associated with expansive soils. In addition, construction would be in compliance with final geotechnical reports, which would be completed for individual buildings based on the final building design. Campus construction and operation would not increase the potential for substantial risks to life or property associated with the presence of expansive soils because this type of project would not foreseeably create hazards or risks to life or property from expansive soils given the soil engineering that would be done prior to Project construction. As a result, impacts would be **less than significant**, and no mitigation is required.

Park

Similar to the Campus Development, grading and construction of the Park and ancillary facilities, such as restrooms and parking areas, would be completed in accordance with the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G), as well as in compliance with the CBC and the JPA's plan check and building inspection procedures. In addition, a final geotechnical report would be completed for individual Park buildings and related infrastructure, based on the final Park design. As described for the Campus Development, development of the proposed Park would not foreseeably result in significant impacts related to expansive soils. As a result, impacts would be **less that significant**, and no mitigation is required.

Infrastructure Improvements

Similar to the Campus Development, grading and construction of the infrastructure improvements would be completed in accordance with the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G), as well as in compliance with the CBC and the JPA's plan check and building inspection procedures. In addition, a final geotechnical report would be completed for individual infrastructure improvements, based on the final infrastructure design. As described for the Campus Development, construction

of the proposed infrastructure improvements would not foreseeably result in significant impacts related to expansive soils. As a result, impacts would be **less that significant**, and no mitigation is required.

Conservation Easement

The March JPA and the developer propose to establish a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to expansive soils.

Threshold GEO-4. Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Specific Plan Area

Campus Development

As discussed in Appendix H, a paleontological sensitivity map generated by the County of Riverside Land Information System ranks the majority of the Campus Development site as having a "low" paleontological potential. However, the eastern portion of the development site includes lower Pleistocene fan deposits which have a "high" paleontological sensitivity for the occurrence of terrestrial vertebrate fossils at shallow depths. Disturbance of any potential terrestrial vertebrate fossils within the Pleistocene fan deposits, therefore, could result in potentially significant impacts to paleontological resources, absent incorporation of mitigation measures outlined in Section 4.6.5 below. However, with incorporation of **MM-GEO-2**, which specifics how grading should occur with regard to paleontological sensitivities, impacts would be **less than significant with mitigation.**

Park

A paleontological sensitivity map generated by the County of Riverside Land Information System ranks the proposed Park site as having a "low" paleontological potential. Therefore, the likelihood of encountering paleontological resources is low and impacts related to the Park component of the Project would be **less than significant**; no mitigation is required.

Infrastructure Improvements

A paleontological sensitivity map generated by the County of Riverside Land Information System ranks the majority of the Project site as having a "low" paleontological potential. However, the eastern portion of the site includes lower Pleistocene fan deposits which have a "high" paleontological sensitivity for the occurrence of terrestrial vertebrate fossils at shallow depths. These deposits are located in areas where infrastructure improvements are proposed. Disturbance of any potential terrestrial vertebrate fossils within the Pleistocene fan deposits during construction of infrastructure could result in potentially significant impacts to paleontological resources, absent incorporation of mitigation measures outlined in Section 4.6.5 below. However, with incorporation of **MM-GEO-2**, as described above, impacts would be **less than significant with mitigation.**

Conservation Easement

The March JPA and the developer propose to establish a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the land within the Conservation Easement is anticipated, there would be **no impact** with respect to disturbance of paleontological resources.

4.6.5 Mitigation Measures

To ensure that the Project is designed and constructed in a manner that reduces the potential for impacts associated with geology, soils, and paleontological resources, the following mitigation measures are required:

MM-GEO-1. Slope Stability

a. All grading shall be performed in accordance with the grading guidelines outlined in the March Joint Powers Authority (JPA) Development Code and the West Campus Upper Plateau Specific Plan.

b. Prior to the issuance of grading permits, the Project applicant shall submit evidence to the satisfaction of the March JPA that all future grading and construction on the Project site shall comply with the geotechnical recommendations contained in the Geotechnical Exploration, Proposed Meridian West Campus Upper Plateau, East of La Crosse Street and South of Camino del Sol, Riverside County, California, dated December 13, 2022, included as Appendix G of this EIR, as well as subsequent design-level geotechnical reports. Proposed tentative tract map (i.e., pertaining to grading) and construction approval letters from the March JPA Planning Manager constitute evidence that all future grading and construction on the Project site would comply with the applicable geotechnical recommendations.

c. All future development shall use proper erosion control measures during and following construction. Landscaping and slope maintenance shall be conducted as soon as possible after grading in order to increase long-term surficial stability of slope faces.

d. Temporary and permanent cut slopes, including temporary slopes created during potential blasting operations, shall be monitored during grading by a California Certified Engineering Geologist for signs of potentially unstable conditions. If unstable conditions are encountered during grading, a stabilization fill may be considered, as specified in the preliminary geotechnical investigation conducted by Leighton Consulting in 2021 for the proposed Project (Appendix G). If potentially unstable slopes are created as a result of blasting, the temporary slopes shall be laid back to a gradient acceptable to the on-site geologist.

MM-GEO-2. Paleontological Resources

a. Monitoring of mass grading and excavation activities in areas identified as likely to contain paleontological resources (see Figure 2 in the preliminary geotechnical investigation (Appendix G)) by a qualified paleontologist or paleontological monitor. Prior to the issuance of grading permits, developer shall provide, to the satisfaction of the March JPA, evidence of engagement of a qualified paleontologist or paleontological monitor with authority as required by this mitigation measure. The qualified paleontologist or paleontological monitor shall develop a paleontological program consistent with this mitigation measure. Full-time monitoring of grading or excavation activities shall be performed starting at a depth of 4 feet below the surface in undisturbed areas of Pleistocene sedimentary deposits within the Project boundaries. Paleontological monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall be empowered to temporarily halt or divert equipment to allow for the removal of abundant or large specimens in a timely manner. The March JPA may authorize a reduction in monitoring if the potentially fossiliferous units are not present in the subsurface or, if present, are

determined by qualified paleontological personnel upon exposure and examination to have a low potential to contain or yield fossil resources.

b. Paleontological salvage shall be done consistent with the recommendations outlined in the Paleontological Resources Report, included as Appendix H to the EIR.

c. The qualified paleontologist or paleontological monitor shall prepare a final monitoring and mitigation report of findings and significance, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). The report, when accepted as satisfactory by the March JPA, will signify satisfactory completion of the project program to mitigate impacts to paleontological resources.

4.6.6 Level of Significance After Mitigation

Impacts under Thresholds GEO-1(i), GEO-1(ii), and GEO-3 would all be **less than significant** and not require implementation of mitigation. Under Threshold GEO-1(iii) and Threshold GEO-2, with implementation of mitigation measure GEO-1, identified in Section 4.6.5, impacts related to potential slope instability would be **less than significant with mitigation**. In addition, under Threshold GEO-4, with implementation of **MM-GEO-2**, identified in Section 4.6.5, impacts to paleontological resources would be **less than significant with mitigation**.

4.6.7 Cumulative Effects

Potential cumulative impacts on geology and soils would result from projects that combine to create geologic hazards, including unstable geologic conditions. The majority of impacts from geologic hazards, such as liquefaction, landslides, and unstable soils, are site-specific and are therefore generally mitigated on a project-by-project basis. Each cumulative project, as identified within Table 4-2 of this EIR would be required to adhere to required building engineering design, per the most recent version of the CBC, to ensure the safety of building occupants and avoid a cumulative geologic hazard. Additionally, as needed, projects would incorporate individual mitigation or geotechnical requirements for site-specific geologic hazards present on each individual cumulative project site. Therefore, a potential cumulative impact related to site-specific geologic hazards would not occur. Therefore, the proposed Project, in combination with other cumulative projects, **would not contribute to a significant cumulative impact** associated with geology and soils.

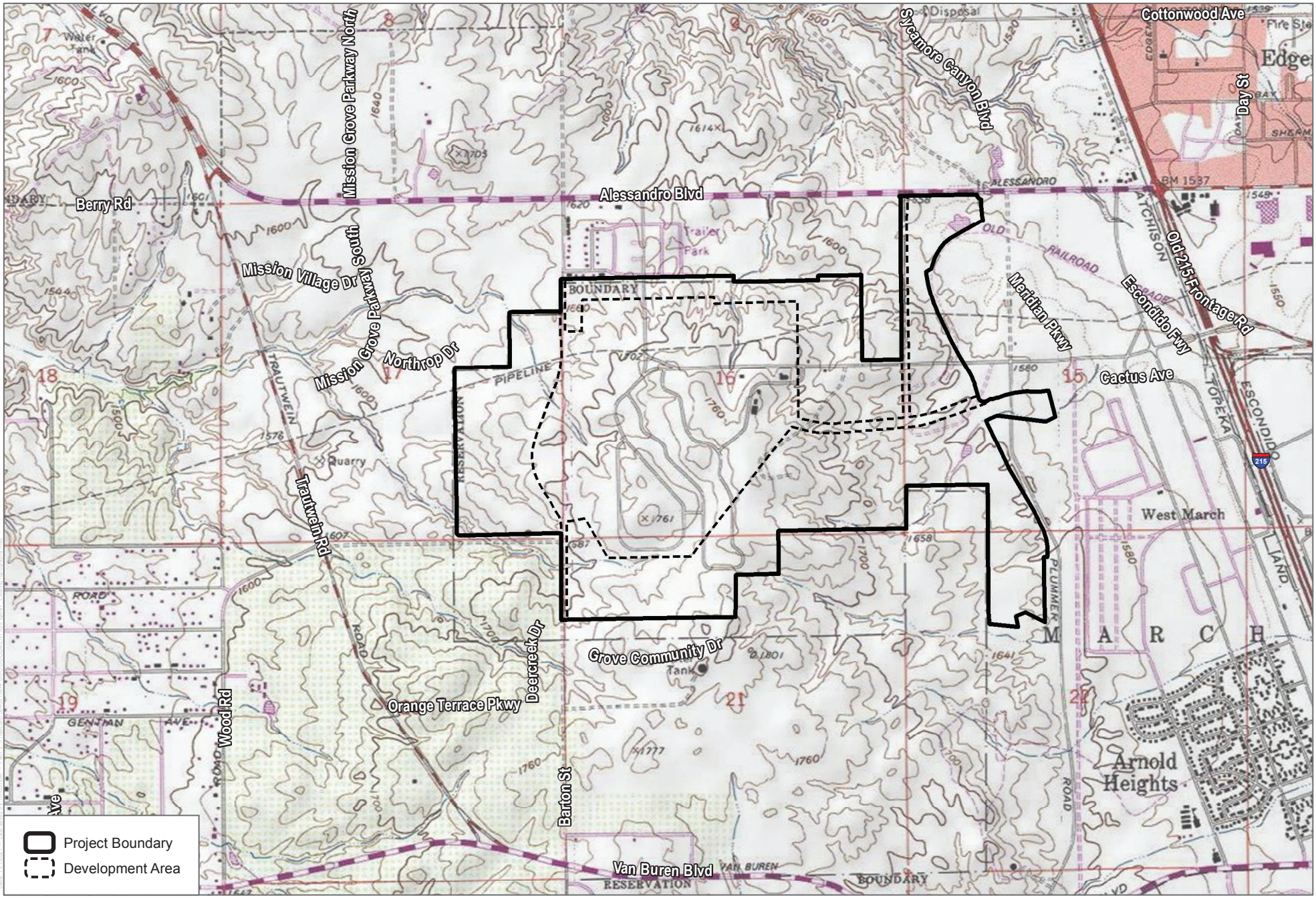
4.6.8 References Cited

County of Riverside. 2021. *Riverside County General Plan, Safety Element*. Updated September 28, 2021. https://planning.rctlma.org/Portals/14/genplan/2021/elements/Ch06_Safety_092821.pdf.

March JPA (Joint Powers Authority). 1999. General Plan Safety/Risk Management Element. 1999.

March JPA. 2022. Local Guidelines for Implementing the California Environmental Quality Act for March Joint Powers Authority and March Inland Port Airport Authority and Successor Agency of the Former March Joint Power Redevelopment Agency and March Joint Powers Utilities Authority. https://www.marchjpa.com/documents/docs_forms/05172022_MJPA_2022_CEQA_Guidelines.pdf.

USGS (U.S. Geological Survey). 2021. “Areas of Land Subsidence in California.” Accessed October 29, 2021 at https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html.



SOURCE: USGS 7.5 Minute Riverside East Quadrangle

DUDEK

0 1,000 2,000 Feet

FIGURE 4.6-1

Existing Topography

West Campus Upper Plateau Project

INTENTIONALLY LEFT BLANK

4.7 Greenhouse Gas Emissions

This section describes the existing greenhouse gas (GHG) conditions of the proposed West Campus Upper Plateau Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Project. This analysis is based on the emissions calculations and the California Emissions Estimator Model (CalEEMod) outputs presented in the Project's Greenhouse Gas Analysis (Appendix I).

As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.7.1 Existing Conditions

Global Climate Change

Global climate change (GCC) is defined as the change in average meteorological conditions on Earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the Earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs from human activity and industrialization over the past 200 years (Appendix I).

GCC refers to the change in average meteorological conditions on Earth with respect to temperature, wind patterns, precipitation, and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally, as it has in the past with the previous ice ages (Appendix I).

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activities. Without the natural GHG effect, the Earth's average temperature would be approximately 61°F cooler than it is currently. The accumulation of these gases in the Earth's atmosphere is considered to be the cause for the observed increase in the Earth's temperature (Appendix I).

Effects of Climate Change in California

Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat (Appendix I).

Water Resources

A vast network of artificial reservoirs and aqueducts captures and transports water throughout the state from Northern California rivers and the Colorado River. The current distribution system relies on the Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages (Appendix I).

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70% to 90%. Under the lower warming range scenario, snowpack losses could be only half as much as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends, in part, on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. Winter tourism could be adversely affected, and under the lower warming range, the ski season at lower elevations could be reduced by as much as 1 month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing, snowboarding, and other winter activities (Appendix I).

The state's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major fresh water supply (Appendix I).

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry, reducing the quantity and quality of agricultural products statewide. California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency,

California's farmers could face greater water demand for crops and a less-reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests, and interferes with plant growth (Appendix I).

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts (Appendix I).

In addition, continued GCC could shift the ranges of existing invasive plants and weeds, and alter competition patterns with native plants. Range expansion could occur in many species, while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates (Appendix I).

Forests and Landscapes

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in Northern California could increase by up to 90% due to decreased precipitation (Appendix I).

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60% to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC (Appendix I).

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12 to 14 inches (Appendix I).

GHGs have varying global warming potential (GWP) values. The GWP of a GHG indicates the amount of warming a gas causes over a given period of time, and represents the potential of a gas to trap heat in the atmosphere. CO_2 is used as the reference gas for GWP, and thus has a GWP of 1. Carbon dioxide equivalent (CO_2e) is a term used for describing the difference GHGs in a common unit. CO_2e signifies the amount of CO_2 that would have the equivalent GWP.

The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.7-1. As shown in the Table, GWP from the Second Assessment Report of the Intergovernmental Panel on Climate Change ranges from 1 for CO_2 to 23,900 for SF_6 (IPCC 2007), and GWP from the Intergovernmental Panel on Climate Change's Fifth Assessment Report ranges from 1 for CO_2 to 23,500 for SF_6 (IPCC 2016). The Fourth Assessment Report is also provided which is the industry standard for use in models such as the CalEEMod.

Table 4.7-1. Global Warming Potential and Atmospheric Lifetime of Select Greenhouse Gases

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-Year Time Horizon)		
		Second Assessment Report	*Fourth Assessment Report*	*Fifth Assessment Report*
CO_2	—*	1	1	1
CH_4	12.4	21	25	28
N_2O	121	310	298	265
HFC-23	222	11,700	14,800	12,400
HFC-134a	13.4	1,300	1,430	1,300
HFC-152a	1.5	140	124	138
SF_6	3,200	23,900	22,800	23,500

Sources: IPCC 2007, Table 2.14; IPCC 2016
Note:
* As per Appendix 8.A. of IPCC 2016, no single lifetime can be given.

Greenhouse Gas Emissions Inventories

Global

Worldwide anthropogenic GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2018. Based on the latest available data, the sum of these emissions totaled approximately 28,768,439 gigagram of CO_2e,[1] as summarized in Table 4.7-2 (United Nations 2019a, 2019b).

United States

As noted in Table 4.7-2, the United States, as a single country, was the No. 2 producer of GHG emissions in 2018.

Table 4.7-2. Top Greenhouse Gas Producing Countries and the European Union

Emitting Countries	Greenhouse Gas Emissions (Gg CO_2e)
China	12,300,200
United States	6,676,650
European Union (28 member countries)	4,232,274
India	2,220,123
Russian Federation	2,100,850
Japan	1,238,343
Total	**28,768,439**

Source: United Nations 2019a
Note: Gg = gigagram; CO_2e = carbon dioxide equivalent.

[1] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change, and Forestry (LULUCF). For countries without 2018 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used (U.N. Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF"). The most recent GHG emissions for China and India are from 2014 and 2010, respectively.

State of California

California has significantly slowed its rate of growth of GHG emissions due to implementation of energy efficiency programs and the adoption of strict emissions controls, but it is still a substantial contributor to the emissions inventory total for the United States (World Resources Institute 2019). The California Air Resource Board (CARB) compiles GHG inventories for California. Based on the latest year for which data are available (the 2000–2020 GHG emissions period), California emitted an average 369.2 million metric tons (MMT) of CO_2e per year (CARB 2022a).

4.7.2 Relevant Plans, Policies, and Ordinances

International

Climate change is a global issue involving GHG emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce GHGs.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nation's Framework Convention on Climate Change (Framework Convention). On March 21, 1994, the United States joined a number of countries around the world in signing the Framework Convention. Under the Framework Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

International Climate Change Treaties. The Kyoto Protocol is an international agreement linked to the Framework Convention. The major feature of the Kyoto Protocol is that it set binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over a 5-year period (2008–2012). The Framework Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Kyoto Protocol commits them to do so. Developed countries have contributed more emissions compared to non-developed countries over the last 150 years; therefore, the Kyoto Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the United Nations Climate Change Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2°C above pre-industrial levels, subject to a review in 2015. The United Nations Climate Change Committee held additional meetings in Durban, South Africa, in November 2011; Doha, Qatar, in November 2012; and Warsaw, Poland, in November 2013.

On September 23, 2014, more than 100 heads of state and government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the United Nations. At the Climate Summit, heads of

government, business, and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the United Nations Framework Convention on Climate Change reached a landmark agreement on December 12, 2015, in Paris, charting a fundamentally new course in the two-decades-old global climate effort. Culminating a 4-year negotiating round, the new treaty ended the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by the parties were the key outcomes of the conference, known as the 21st Session of the United Nations Framework Convention on Climate Change Conference of the Parties. Together, the Paris Agreement and the accompanying Conference of the Parties decision did the following (C2ES 2015):

- Reaffirmed the goal of limiting global temperature increase well below 2°C while urging efforts to limit the increase to 1.5°C.
- Established binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them.
- Committed all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review.
- Committed all countries to submit new NDCs every 5 years, with the clear expectation that they will "represent a progression" beyond previous ones.
- Reaffirmed the binding obligations of developed countries under the United Nations Framework Convention on Climate Change to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries.
- Extended the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025.
- Extended a mechanism to address "loss and damage" resulting from climate change, which explicitly will not "involve or provide a basis for any liability or compensation."
- Required parties engaging in international emissions trading to avoid "double counting."
- Called for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC.

Following President Biden's day one executive order, the United States officially rejoined the landmark Paris Agreement on February 19, 2021, positioning the country to once again be part of the global climate solution. Meanwhile, city, state, business, and civic leaders across the country and around the world have been ramping up efforts to drive the clean energy advances needed to meet the goals of the agreement and put the brakes on dangerous climate change.

Federal

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG Endangerment. In *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007), decided on April 2, 2007, the U.S. Supreme Court found that four GHGs, including CO_2, are air pollutants subject to regulation under Section 202(a)(1) of the federal Clean Air Act (CAA). The Supreme Court held that the U.S. Environmental Protection Agency (EPA) Administrator must determine whether emissions of GHGs 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. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed 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.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles," below. After a lengthy legal challenge, the U.S. Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator's findings (EPA 2009).

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light-duty trucks. The law has become more stringent over time. On May 19, 2009, President Barack Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They required these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards aimed to cut CO_2 emissions by an estimated 960 MMT and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams per mile of CO_2 by model year 2025, which is equivalent to 54.5 miles per gallon if achieved exclusively through fuel economy improvements.

The EPA and U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies proposed engine and vehicle standards that began in the 2014 model year and aimed to achieve up to a 20% reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty trucks and vans, the agencies proposed separate gasoline and diesel-truck standards, which phased in starting in the 2014 model year and achieved up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12% and 17%, respectively, if accounting

for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards achieved up to a 10% reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On April 2, 2018, the EPA signed the Mid-term Evaluation Final Determination, which declared that the MY 2022-2025 GHG standards are not appropriate and should be revised. This Final Determination serves to initiate a notice to further consider appropriate standards for MY 2022-2025 light-duty vehicles. On August 2, 2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule) (EPA and NHTSA 2018). The SAFE Vehicles Rule was proposed to amend existing Corporate Average Fuel Economy (CAFE) and tailpipe CO_2 standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026. On December 21, 2021, after reviewing all the public comments submitted on NHTSA's April 2021 Notice of Proposed Rulemaking, NHTSA finalizes the CAFE Preemption rulemaking to withdraw its portions of the so-called SAFE I Rule. The final rule concludes that the SAFE I 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. The final rule ensures that the SAFE I Rule will no longer form an improper barrier to states exploring creative solutions to address their local communities' environmental and public health challenges.

On March 31, 2022, NHTSA finalized CAFE standards for MY 2024-2026. The standards for passenger cars and light trucks for MYs 2024-2025 were increased at a rate of 8% per year and then increased at a rate of 10% per year for MY 2026 vehicles. NHTSA currently projects that the revised standards would require an industry fleet-wide average of roughly 49 mpg in MY 2026 and would reduce average fuel outlays over the lifetimes of affected vehicles that provide consumers hundreds of dollars in net savings. These standards are directly responsive to the agency's statutory mandate to improve energy conservation and reduce the nation's energy dependence on foreign sources.

Mandatory Reporting of GHGs. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the United States and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons (MT) per year or more of GHG emissions are required to submit annual reports to the EPA.

New Source Review. The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit which facilities are required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states the following:

> This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future

steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016.

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters: power plants, refineries, and cement production facilities.

Standards of Performance for GHG Emissions for New Stationary Sources: Electric Utility Generating Units. As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO_2 for new, affected, fossil-fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pounds of CO_2 per megawatt-hour, based on the performance of widely used natural gas combined-cycle technology. On February 9, 2016, the U.S. Supreme Court issued a stay of this regulation pending litigation. Additionally, the EPA Administrator signed a measure to repeal the Clean Power Plan, including the CO_2 standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule. Under the Affordable Clean Energy rule, new state emission guidelines were established that provided existing coal-fired electric utility generating units with achievable standards. On January 19, 2021, the D.C. Circuit Court of Appeals ruled that the EPA's ACE Rule for GHG emissions from power plants rested on an erroneous interpretation of the CAA that barred EPA from considering measures beyond those that apply at and to an individual source. The court therefore vacated and remanded the ACE Rule and adopted a replacement rule which regulates CO_2 emissions from existing power plants, potentially again considering generation shifting and other measures to more aggressively target power sector emissions.

Cap-and-Trade. Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the N_2O Budget Trading Program, and the Clean Air Interstate Rule in the northeast. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Regional GHG Initiative began in 2008.

The Western Climate Initiative partner jurisdictions developed a comprehensive initiative to reduce regional GHG emissions to 15% below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec's cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015. Although the Western Climate Initiative has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, Senate Bill (SB) 32, requires that California, a major partner in the Western Climate Initiative, adopt the goal of reducing statewide GHG emissions to 40% below the 1990 level by 2030.

SmartWay Program. The SmartWay Program is a public/private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of GHG emissions and air pollution) of the goods movement supply chains. SmartWay consists of four components (EPA 2019):

1. SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually.
2. SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions.
3. SmartWay Vehicles: A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.
4. SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay refers to requirements geared toward reducing fuel consumption. Most large trucking fleets with newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all heavy-duty trucks will have to comply with CARB's Tractor-Trailer GHG Regulation that is designed with the SmartWay Program in mind to reduce GHG emissions by making them more fuel efficient. For instance, in 2015, 53-foot or longer dry vans or refrigerated trailers equipped with a combination of SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices obtained 10% or more fuel savings over traditional trailers.

Through the SmartWay Program, the EPA has evaluated the fuel saving benefits of various devices through grants, cooperative agreements, emissions and fuel economy testing, demonstration projects, and technical literature review. As a result, the EPA determined that the following types of technologies provide fuel saving and/or emissions-reducing benefits when used properly in their designed applications, and has verified certain products (EPA 2019):

- Idle reduction technologies to provide for less idling of the engine when it is not needed reduces fuel consumption.
- Aerodynamic technologies minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- Low-rolling-resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. The wheel will eventually slow down because of this resistance.
- Retrofit technologies include things such as diesel particulate filters and emissions upgrades (to a higher tier), which reduce emissions.
- Federal excise tax exemptions.

Energy Independence and Security Act of 2007. The Energy Independence and Security Act was signed into law on December 19, 2007, by President Bush. The Energy Independence and Security Act updates the 1992 Energy Policy Act, which covered low-voltage, general-purpose, three-phase electric motors from 1 to 200 horsepower. The Energy Independence and Security Act aims to reduce GHG emissions through the following actions:

- Expanding the Renewable Fuel Standard so that nearly 20% of transportation fuel sold in the United States by 2022 will be from biofuels (36 billion gallons).
- Increase the efficiency of products, buildings, and vehicles.
- Promote research on and deploy GHG capture and storage options.
- Requiring 27% greater efficiency by 2014 for common household light bulbs and 60%–70% more efficient by 2022.
- Improve vehicle fuel economy.

Multistate

Western Regional Climate Change Initiative

The Western Regional Climate Action Initiative is a partnership among seven different U.S. states and four Canadian provinces aimed at developing a regional cap-and-trade economy to reduce GHG emissions. The following comes from the Western Regional Climate Action Initiative's website (WCI 2021):

> The WCI [Western Regional Climate Action Initiative] was built on existing greenhouse gas reduction efforts in the individual states as well as two existing regional efforts. In 2003, California, Oregon and Washington created the West Coast Global Warming Initiative, and in 2006, Arizona and New Mexico launched the Southwest Climate Change Initiative.
>
> During 2007 and 2008, the Premiers of British Columbia, Manitoba, Ontario, and Quebec, and the Governors of Montana and Utah joined the original five states in committing to tackle climate change at a regional level. All 11 jurisdictions collaborated in the development of the Design for the WCI Regional Program, which was released in July 2010.
>
> In November 2011, the Western Climate Initiative formed Western Climate Initiative, Inc. (WCI, Inc.), a non-profit corporation that will provide administrative and technical services to support the implementation of state and provincial greenhouse gas emissions trading programs.
>
> British Columbia, California, Ontario, Quebec and Manitoba are continuing to work together through the Western Climate Initiative to develop and harmonize their emissions trading program policies. They are also continuing to work with Western, Midwestern, and Northeast states on a range of other climate and clean energy strategies through the North America 2050 Initiative. North America 2050 is a forum for states, provinces and stakeholders to identify leadership opportunities in climate and clean energy policy.

Pacific Coast Action Plan on Climate and Energy

The governors of California, Oregon, and Washington, and the Premier of British Columbia joined together to produce the Pacific Coast Action Plan, signed on October 28, 2013, to reduce GHG emissions, among other goals. The plan organizes their Pacific coast economies around several initiatives, including the following (CEC 2013):

- Leading national and international policy on climate change
  - Accounting for a price on carbon.
  - Harmonizing 2050 targets for GHG emission reductions and developing midterm targets need for long-term reduction goals.
  - Affirming the need to inform policy with climate science findings.
- Transition the West Coast to clean modes of transportation, including 100% zero emissions vehicles by 2050
  - Continuing deployment of high-speed rail.
  - Supporting emerging markets and innovation for alternative fuels in trucks, buses, rail, and ports.
- Invest in clean energy and climate-resilient infrastructure, including transforming the energy efficiency market and lead the way to net-zero buildings.

State

Legislative Actions to Reduce Greenhouse Gases

The California Legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark Assembly Bill (AB) 32, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 and Title 20 energy standards, were originally adopted for other purposes, such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of California's legislation.

Executive Order S-3-05. California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order (EO) S-3-05, the following reduction targets for GHG emissions:

- 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

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

AB 32. The California State Legislature enacted AB 32, which required that GHGs emitted in California be reduced to 1990 levels by 2020 (this goal has been met).[2] "GHGs," as defined under AB 32, include CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB

[2] Based on the 2019 GHG inventory data (i.e., the latest year for which data are available) for the 2000–2017 GHG emissions period, California emitted an average 424.1 MMT CO_2e. This is less than the 2020 emissions target of 431 MMT CO_2e.

adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

> Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

SB 375 – Sustainable Communities and Climate Protection Act of 2008. Passing the Senate on August 30, 2008, SB 375 was signed by Governor Schwarzenegger on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits more than 40% of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

SB 375 also requires metropolitan planning organizations to prepare a Sustainable Communities Strategy within the Regional Transportation Plan that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses California Environmental Quality Act (CEQA) streamlining as an incentive to encourage residential projects that help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

Concerning CEQA, SB 375, as codified in California Public Resources Code (PRC) Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss growth-inducing impacts, or any project-specific or cumulative impacts from cars or light-duty truck trips generated by a project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493. California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by EPA's denial of an implementation waiver. EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011. Although the waiver was revoked by the Trump Administration, it is expected that the Biden Administration will reinstate the waiver. As President Biden issued EO 13990 to review Part One and Part Two of the SAFE Vehicles Rule, this analysis continues to utilize the best available information at this time, as set forth in EMFAC and assumed in CalEEMod.

The standards were phased in during the 2009 through 2016 model years. The near-term (2009–2012) standards were projected to result in an approximately 22% reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards were projected to result in an approximately 30% reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless

valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for AB 1493 was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars (ACC) program. The ACC program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for MY 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid EV and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California. On March 9, 2022, the EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards for cars and light trucks, which other states can also adopt and enforce. With this authority restored, EPA will continue partnering with states to advance the next generation of clean vehicle technologies.

SB 350 – Clean Energy and Pollution Reduction Act of 2015. In October 2015, the legislature approved and Governor Jerry Brown signed SB 350, which reaffirmed California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the Renewables Portfolio Standard (RPS), higher energy efficiency requirements for buildings, initial strategies toward a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Provisions for a 50% reduction in the use of petroleum statewide were removed from SB 350 because of opposition and concern that it would prevent the bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

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

SB 32. On September 8, 2016, Governor Jerry Brown signed SB 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in EO B-30-15. The new legislation builds on the AB 32 goal of 1990 levels by the end of 2020, and provides an intermediate goal to achieving EO S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature.

Progress in Achieving Assembly Bill 32 Targets and Remaining Reductions Required

The state has made steady progress in implementing AB 32 and achieving targets included in EO S-3-05. The progress is shown in updated emission inventories prepared by CARB for 2000 through 2012 (CARB 2014). The state has achieved the EO S-3-05 target for 2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target.

- 1990: 427 MMT CO_2e (AB 32 2020 target)

- 2000: 463 MMT CO_2e (an average 8% reduction needed to achieve 1990 base)
- 2010: 450 MMT CO_2e (an average 5% reduction needed to achieve 1990 base)

CARB revised the 2020 business-as-usual (BAU) inventory forecast to account for new lower growth projections, which resulted in a new lower reduction from BAU to achieve the 1990 base. The previous reduction from 2020 BAU needed to achieve 1990 levels was 28.4%, and the latest reduction from 2020 BAU is 21.7%.

- 2020: 545 MMT CO_2e BAU (an average 21.7% reduction from BAU needed to achieve 1990 base)

CARB Scoping Plan. CARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the state's emissions to 1990 levels by 2020 to comply with AB 32 (CARB 2008). The Scoping Plan identified recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the 2020 emissions target; each sector has a different emissions-reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target are as follows (CARB 2008):

- Expanding and strengthening existing energy efficiency programs, and building and appliance standards.
- Achieving a statewide renewables energy mix of 33%.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system.
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low-Carbon Fuel Standard (LCFS).
- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation.

CARB approved the First Scoping Plan Update on May 22, 2014. The First Scoping Plan Update identifies the next steps for California's climate change strategy. The First Scoping Plan Update shows how California planned to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emissions reductions. The Scoping Plan Update establishes a broad framework for continued emissions reductions beyond 2020, on the path to 80% below 1990 levels by 2050. The First Scoping Plan Update identifies progress made to meet the near-term objectives of AB 32, and defines California's climate change priorities and activities for the next several years. The First Scoping Plan Update does not set new targets for the state, but describes a path that would achieve the long-term 2050 goal of EO S-05-03 for emissions to decline to 80% below 1990 levels by 2050 (CARB 2014).

Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the reductions California must achieve to return to the 1990 emissions level by 2020 as required by AB 32. The no-action scenario is known as "business-as-usual" or BAU. CARB originally defined the BAU scenario as emissions in the absence of any GHG emissions-reduction measures discussed in the Scoping Plan.

2017 Climate Change Scoping Plan Update

In compliance with AB 32 and the 2008 Scoping Plan, the target year 2020 has been fulfilled and will look onward to the 2017 Scoping Plan that should be in compliance by 2030.

In November 2017, CARB released the Final 2017 Scoping Plan Update, which identifies the state's post-2020 reduction strategy. The Final 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990

levels, set by EO B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon are the Cap-and-Trade Program; the LCFS and much cleaner cars, trucks, and freight movement; using cleaner, renewable energy; and strategies to reduce CH_4 emissions from agricultural and other wastes (CARB 2017).

The Final 2017 Scoping Plan Update establishes a new emissions limit of 260 MMT CO_2e by 2030, which corresponds to a 40% decrease in 1990 levels by 2030 (CARB 2017).

California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero-emission-vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low-carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities, and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts to tighten emission limits on a broad spectrum of industrial sources. Major elements of the Final 2017 Scoping Plan Update framework are as follows (CARB 2017):

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero-emission-vehicle buses and trucks.
- Implementing the LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, uses near-zero emissions technology, and uses deployment of zero-emission trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH_4 and HFC emissions by 40%, and anthropogenic black carbon emissions by 50% by 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the 2017 Scoping Plan acknowledges the following (CARB 2017):

> Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA.

In addition to the statewide strategies listed above, the Final 2017 Scoping Plan Update also identifies local governments as essential partners in achieving the state's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 MT CO_2e or less per capita by 2030, and 2 MT CO_2e or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the state's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation

measures that avoid or minimize project emissions to the degree feasible or use a performance-based metric using a Climate Action Plan or other plan to reduce GHG emissions (CARB 2017).

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, met the 2020 reduction targets under AB 32 and could achieve the 2030 goals under SB 32 (LBNL 2015a). The research used a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that GHG emissions through 2020 could range from 317 to 415 MT CO_2e per year, "indicating that existing state policies will likely allow California to meet its target [of 2020 levels under AB 32]" (LBNL 2015b). CALGAPS also showed that by 2030, emissions could range from 211 to 428 MT CO_2e per year, indicating that "even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of SB 32]" (LBNL 2015b). CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions would not meet the state's 80% reduction goal by 2050, various combinations of policies could allow California's cumulative emissions to remain very low through 2050 (LBNL 2015a).

2022 CARB Scoping Plan. On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (CARB 2022b). The 2022 Scoping Plan builds on the 2017 Scoping Plan as well as the requirements set forth by AB 1279, which directs the state to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce GHG emissions by 85% below 1990 levels and achieve carbon neutrality by 2045. The Scoping Plan scenario to do this is to "deploy a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor." The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (CAP) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation - the regulations that will impact this sector are adopted and enforced by CARB on vehicle manufacturers and outside the jurisdiction and control of local governments. As stated in the Plan's executive summary:

> "The major element of this unprecedented transformation is the aggressive reduction of fossil fuels wherever they are currently used in California, building on and accelerating carbon reduction programs that have been in place for a decade and a half. That means rapidly moving to zero-emission transportation; electrifying the cars, buses, trains, and trucks that now constitute California's single largest source of planet-warming pollution."
>
> "[A]pproval of this plan catalyzes a number of efforts, including the development of new regulations as well as amendments to strengthen regulations and programs already in place, not just at CARB but across state agencies."

Under the 2022 Scoping Plan, the State will lead efforts to meet the 2045 carbon neutrality goal through implementation of the following objectives:

- Reimagine roadway projects that increase VMT in a way that meets community needs and reduces the need to drive.

- Double local transit capacity and service frequencies by 2030.
- Complete the High-Speed Rail (HSR) System and other elements of the intercity rail network by 2040.
- Expand and complete planned networks of high-quality active transportation infrastructure.
- Increase availability and affordability of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles, prioritizing needs of underserved communities.
- Shift revenue generation for transportation projects away from the gas tax into more durable sources by 2030.
- Authorize and implement roadway pricing strategies and reallocate revenues to equitably improve transit, bicycling, and other sustainable transportation choices.
- Prioritize addressing key transit bottlenecks and other infrastructure investments to improve transit operational efficiency over investments that increase VMT.
- Develop and implement a statewide transportation demand management (TDM) framework with VMT mitigation requirements for large employers and large developments.
- Prevent uncontrolled growth of autonomous vehicle (AV) VMT, particularly zero-passenger miles.
- Channel new mobility services towards pooled use models, transit complementarity, and lower VMT outcomes.
- Establish an integrated statewide system for trip planning, booking, payment, and user accounts that enables efficient and equitable multimodal systems.
- Provide financial support for low-income and disadvantaged Californians' use of transit and new mobility services.
- Expand universal design features for new mobility services.
- Accelerate infill development in existing transportation-efficient places and deploy strategic resources to create more transportation-efficient locations.
- Encourage alignment in land use, housing, transportation, and conservation planning in adopted regional plans (RTP/SCS and RHNA) and local plans (e.g., general plans, zoning, and local transportation plans).
- Accelerate production of affordable housing in forms and locations that reduce VMT and affirmatively further fair housing policy objectives.
- Reduce or eliminate parking requirements (and/or enact parking maximums, as appropriate) and promote redevelopment of excess parking, especially in infill locations.
- Preserve and protect existing affordable housing stock and protect existing residents and businesses from displacement and climate risk.

Included in the 2022 Scoping Plan is a set of Local Actions (Appendix D to the 2022 Scoping Plan) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects, in fact CARB states in Appendix D (page 4): "…focuses primarily on climate action plans (CAPs) and local authority over new residential development. It does not address other land use types (e.g., industrial) or air permitting."

Additionally on Page 21 in Appendix D, CARB states: "The recommendations outlined in this section apply only to residential and mixed-use development project types. California currently faces both a housing crisis and a climate crisis, which necessitates prioritizing recommendations for residential projects to address the housing crisis in a

manner that simultaneously supports the State's GHG and regional air quality goals. CARB plans to continue to explore new approaches for other land use types in the future."

As such, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

Cap-and-Trade Program. The 2017 Scoping Plan identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a Cap-and-Trade Program will help put California on the path to meeting its goal of achieving a 40% reduction in GHG emissions from 1990 levels by 2030. Under the Cap-and-Trade Program, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap are able to trade permits to emit GHGs within the overall limit (CARB 2017).

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32 (see Title 17 of the California Code of Regulations [CCR] Sections 95801–96022). The Cap-and-Trade Program is designed to reduce GHG emissions from regulated entities by more than 16% between 2013 and 2020, and by an additional 40% by 2030. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the program's duration.

Covered entities that emit more than 25,000 MT CO_2e per year must comply with the Cap-and-Trade Program. Triggering of the 25,000 MT CO_2e per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions.

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender "compliance instruments" for each MT CO_2e of GHG they emit (CARB 2019). There also are requirements to surrender compliance instruments covering 30% of the prior year's compliance obligation by November of each year. For example, in November 2014, a covered entity was required to submit compliance instruments to cover 30% of its 2013 GHG emissions.

The Cap-and-Trade Program provides a firm cap, which provides the highest certainty of achieving the 2030 target. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the First Update of the Climate Change Scoping Plan (CARB 2014):

> The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative.

The Cap-and-Trade Program covers approximately 80% of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade

Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported.

In December 2017, CARB's Governing Board adopted the 2017 Climate Change Scoping Plan Update (2030 Scoping Plan) (CARB 2017). To fill the gap in additional reductions needed to achieve the 2030 target, it recommends continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20%.

California Integrated Waste Management Act of 1989 and AB 341. The California Integrated Waste Management Act of 1989, later modified by AB 341, required an implementation schedule from each jurisdictions' source reduction and recycling element, to include the following:

- Diversion of 25% of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities.
- Diversion of 50% of all solid waste on and after January 1, 2000.
- Source reduction, recycling, and composting of 75% of all sold waste on or after 2020 and annually thereafter.

The California Department of Resources Recycling and Recovery (CalRecycle) was required to develop strategies, including source reduction, recycling, and composting activities, to achieve the 2020 goal.

AB 1613. AB 1613 directed the CEC, the California Public Utilities Commission, and CARB to implement the Waste Heat and Carbon Emissions Reduction Act, which is designed to encourage development of new combined heat and power systems in California with a generating capacity of not more than 20 megawatts. The CEC later published modified final guidelines that established the technical criteria for eligibility of combined heat and power systems for programs to be developed by the California Public Utilities Commission and publicly owned utilities. Section 2843 of AB 1613 provides that the CEC's guidelines require combined heat and power systems do the following:

- Be designed to reduce waste energy
- Have a minimum efficiency of 60%
- Have oxides of nitrogen (NO_X) emissions of no more than 0.07 pounds per megawatt-hour
- Be sized to meet the eligible customer generation thermal load
- Operate continuously in a manner that meets the expected thermal load, and optimizes the efficient use of waste heat
- Be cost-effective, technologically feasible, and environmentally beneficial

Water Conservation Act of 2009 (SB X7-7). SB X7-7, enacted in November 2009, requires all water suppliers increase their water use efficiency. It set an overall goal of reducing per-capita urban water use by 20% by December 31, 2020. SB X7-7 required the state to make incremental progress by reducing per-capita water usage by at least 10% by December 31, 2015. 89% of the 389 water suppliers in the state met the 2015 and 2020 goals.

The measure covers projects divided into five teams that work on three types of project: urban water projects, agriculture projects, and urban and agriculture projects. The urban team focused on several measures, including reducing per-capita urban water use by 20% by December 31, 2020, and revising loan/grant criteria for water suppliers so that they will be ineligible for funding without complying with the regulations set by the Department of Water Resources.

The Department of Water Resources adopted a regulation on February 16, 2011, that sets forth criteria and methods for exclusion of industrial process water from the calculation of gross water use for purposes of urban water management planning. The regulation applies to all urban retail water suppliers required to submit an Urban Water Management Plan, as set forth in the Water Code Sections 10617 and 10620.

SB 1389. SB 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial Integrated Energy Policy Report (IEPR) that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors. The IEPR also 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 (PRC Section 25301a). The CEC prepares these assessments and associated policy recommendations every 2 years, with updates in alternate years, as part of the IEPR.

The 2020 IEPR was adopted March 23, 2020, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2020 IEPR identifies actions the state and others can take to ensure a clean, affordable, and reliable energy system. California's innovative energy policies strengthen energy resiliency, reduce greenhouse gas (GHG) emissions that cause climate change, improve air quality, and contribute to a more equitable future (CEC 2020).

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders.

EO S-01-07 – LCFS. Governor Arnold Schwarzenegger signed EO S-01-07 on January 18, 2007. The order mandated that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. In particular, the executive order established a LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis-supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by the CEC on December 24, 2007) and was submitted to CARB for consideration as an "early action" item under AB 32. The CARB adopted the LCFS on April 23, 2009.

The LCFS was challenged in the U.S. District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012, pending final ruling on appeal, allowing CARB to continue to implement and enforce the regulation. The Ninth Circuit Court's decision, filed September 18, 2013, vacated the preliminary injunction. In essence, the court held that the LCFS adopted by CARB was not in conflict with federal law. On August 8, 2013, the Fifth District Court of Appeal (California) ruled that CARB failed to comply with CEQA and the Administrative Procedure Act when adopting regulations for the LCFS. In a partially published opinion, the Court of Appeal reversed the trial court's judgment and directed issuance of a writ of mandate setting aside Resolution 09-31 and two executive orders of CARB approving LCFS regulations promulgated to reduce GHG emissions. However, the court tailored its remedy to protect the public interest by allowing LCFS regulations to remain operative while CARB complies with the procedural requirements it failed to satisfy.

To address the court ruling, CARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS, as well as new provisions designed to foster investments in the production of the low-carbon-intensity fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations,

and enhance enforcement. On November 16, 2015, the Office of Administrative Law approved the Final Rulemaking Package. The new LCFS regulation became effective on January 1, 2016.

In 2018, CARB approved amendments to the regulation, which included strengthening the carbon intensity benchmarks through 2030 in compliance with the SB 32 GHG emissions reduction target for 2030. The amendments included crediting opportunities to promote zero-emission-vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

EO S-13-08. EO S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the executive order, the 2009 California Climate Adaptation Strategy was adopted, which is the "first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

EO B-30-15. On April 29, 2015, Governor Jerry Brown issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030. The Governor's executive order aligned California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris in late 2015. The executive order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40% below 1990 levels by 2030 to ensure that California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMT CO_2e. The executive order also requires the state's climate adaptation plan to be updated every 3 years, and for the state to continue its climate change research program, among other provisions. As with EO S-3-05, this executive order is not legally enforceable for local governments or the private sector. Legislation that would update AB 32 to make post-2020 targets and requirements a mandate is in process in the State Legislature.

EO B-55-18 and SB 100. SB 100 and EO B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, EO B-55-18 establishes a carbon neutrality goal for California by 2045 and sets a goal to maintain net negative emissions thereafter. The executive order directs the California Natural Resources Agency, California EPA, California Department of Food and Agriculture, and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat, even with rapid population growth.

Title 20 CCR. CCR, Title 20: Division 2, Chapter 4, Article 4, Sections 1601–1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for federally regulated appliances and non-federally regulated appliances. A total of 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.

Title 24 CCR. CCR Title 24 Part 6: California's Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods.

CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission. CALGreen is updated on a regular basis, with the most recently approved update consisting of the 2019 California Green Building Code Standards that became effective January 1, 2020. Local jurisdictions are permitted to adopt more stringent requirements, and state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction waste and demolition ordinances, and defers to them as the ruling guidance provided they establish a minimum 65% diversion requirement. CALGreen also provides exemptions for areas not served by construction waste and demolition recycling infrastructure. The California Building Code provides the minimum standard that buildings must meet to be certified for occupancy, which is generally enforced by the local building official.

Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2022 version of Title 24 was adopted by the CEC and became effective on January 1, 2023. The 2022 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption in the South Coast Air Basin and across California. For example, the 2022 Title 24 standards will require efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards.

Model Water Efficient Landscape Ordinance (MWELO). The MWELO was required by AB 1881, the Water Conservation Act. AB 1881 required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the MWELO by January 1, 2010. Reductions in water use of 20% consistent with the SB X-7-7 mandate are expected upon compliance with the ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed the Department of Water Resources to update the MWELO through expedited regulation. The California Water Commission approved the revised MWELO on July 15, 2015, effective December 15, 2015. New development projects that include landscape areas of 500 square feet or more are subject to the MWELO. The update requires the following:

- More efficient irrigation systems
- Incentives for graywater usage
- Improvements in on-site stormwater capture
- Limiting the portion of landscapes that can be planted with high-water-use plants
- Reporting requirements for local agencies

CARB Refrigerant Management Program. CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring; leak repair; system retirement and retrofitting; reporting and recordkeeping; and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in CCR Sections 95380 to 95398 of Title 17. The rules implementing the regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high-GWP refrigerant. The refrigerant management program is designed to reduce emissions of high-GWP GHG refrigerants from leaky stationary, nonresidential refrigeration equipment; reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and verify GHG emission reductions.

Tractor-Trailer GHG Regulation. The tractors and trailers subject to this regulation must either use EPA SmartWay-certified tractors and trailers or retrofit their tractors and trailers with SmartWay-verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including dry-van and refrigerated-van trailers, and owners of the tractors that pull the trailers on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low-rolling-resistance tires. Sleeper cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay-verified low-rolling-resistance tires. There are also requirements for trailers to have low-rolling resistance-tires and aerodynamic devices.

Phase 1 and 2 Heavy-Duty Vehicle GHG Standards. CARB adopted a regulation for GHG emissions from heavy-duty trucks and engines sold in California. It establishes GHG emissions limits on truck and engine manufacturers and harmonizes with the EPA rule for new trucks and engines nationally. Existing heavy-duty-vehicle regulations in California include engine criteria emissions standards; tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer GHG Regulation); and in-use fleet retrofit requirements, such as the Truck and Bus Regulation. In September 2011, the EPA adopted its rule for heavy-duty trucks and engines. The EPA rule has compliance requirements for compression and spark ignition engines, as well as trucks from Class 2b through Class 8. Compliance requirements began with model year 2014, with stringency levels increasing through model year 2018. The rule organizes truck compliance into three groupings: heavy-duty pickups and vans, vocational vehicles, and combination tractors. The EPA rule does not regulate trailers.

CARB staff have worked jointly with the EPA and NHTSA on the next phase of federal GHG emissions standards for medium-duty trucks and heavy-duty trucks, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emissions standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later-model-year heavy-duty trucks, including trailers. The EPA and NHTSA have proposed to roll back GHG and fuel economy standards for cars and light-duty trucks, which suggests that a similar rollback of Phase 2 standards for medium-duty trucks and heavy-duty trucks may be pursued.

SB 97 and the CEQA Guidelines. Passed in August 2007, SB 97 added PRC Section 21083.05, which states, "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR [Office of Planning and Research] pursuant to subdivision (a)."

In 2012, PRC Section 21083.05 was amended to state the following:

> The Office of Planning and Research and the Natural Resources Agency shall periodically update the guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption, to incorporate new information or criteria established by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code.

On December 28, 2018, the Natural Resources Agency announced that the Office of Administrative Law approved the amendments to the CEQA Guidelines for implementing CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

Section 15064.4 was added in the CEQA Guidelines and states that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of a project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for that project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Regional

Southern California Association of Governments. On September 3, 2020, the Southern California Association of Governments' (SCAG) Regional Council adopted Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy) (RTP/SCS). 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. It 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 (SCAG 2020).

South Coast Air Quality Management District. The Project site is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is the agency responsible for air quality planning and regulation in the South Coast Air Basin. The SCAQMD addresses the impacts to climate change of projects subject to an SCAQMD permit as the lead agency if it is the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for a project. The SCAQMD acts as an expert-commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the SCAQMD helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the South Coast Air Basin. The Working Group identified several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, but no thresholds for CEQA land use development projects were adopted. The Working Group has not convened a meeting since November 2009, nor has the Working Group provided additional guidance since release of the interim guidance in 2008. The SCAQMD did adopt a 10,000 MT CO_2e per year threshold for industrial projects and projects for which they are a lead agency.

March Joint Powers Authority General Plan

The Noise/Air Quality Element of the March Joint Powers Authority (JPA) General Plan includes goals and policies that will be applied to the Project related to GHG emissions (March JPA 1999). Consistency with these goals and policies are discussed in Section 4.10, Land Use and Planning, of this EIR. The following goals and policies from the Noise/Air Quality Element apply to the Project (March JPA 1999):

Goal 3: Reduce air pollution through proper land use, transportation, and energy use planning.

Policy 3.4: Encourage ride share programs.

Goal 6: Reduce emissions associated with vehicle/engine use.

Policy 6.1: Reduce idling emissions by increasing traffic flow through synchronized traffic signals.

Policy 6.2: Work with Riverside Transit Agency (RTA) to develop a local transit system and facilitate connections of the local transit system with regional transit systems.

Policy 6.3: Encourage diversion of peak hour truck traffic, whenever feasible, to off-peak periods to reduce roadway congestion and associated emissions.

Policy 6.4: Work with Caltrans [California Department of Transportation] and traffic engineers to ensure that roadways and freeway on-ramps that are heavily utilized by trucks are designed to safely accommodate trucks.

Policy 6.5: Encourage trucks operating within March JPA Planning Area to maintain safety equipment and operate at safe speeds so as to reduce the potential for accidents which create congestion and related emissions.

Policy 6.6: Reduce vehicle emissions through improved parking design and management that provide for safe pedestrian access to and from various facilities.

Policy 6.8: Encourage the use of compressed natural gas, clean diesel and/or alternative fuels in engines.

Goal 7: Reduce emissions associated with energy consumption.

Policy 7.1: Support the use of energy-efficient equipment and design in the March JPA Planning Area for facilities and infrastructure.

Policy 7.2: Encourage incorporation of energy conservation features in development.

Policy 7.3: Support passive solar design in new construction.

Policy 7.4: Support recycling programs which reduce emissions associated with manufacturing and waste disposal.

Policy 7.5: Support drought-resistant vegetation in landscaping areas to reduce energy needed to pump water.

Local

County of Riverside Climate Action Plan

The County of Riverside (County) adopted its updated Climate Action Plan (CAP) on December 17, 2019. The CAP was designed under the premise that the County, and the community it represents, is uniquely capable of addressing emissions associated with sources under the County's jurisdiction, and that the County's emission reduction efforts should coordinate with the state strategies of reducing emissions to accomplish these reductions in an efficient and cost-effective manner. The County plans to reduce community-wide emissions to 3,576,598 MT CO_2e per year by 2030 (County of Riverside 2019).

The Project site is located in the jurisdiction of the March JPA within Riverside County. Although the County of Riverside does not have direct authority over the Project, it is anticipated that in June 2025, Riverside County will assume full land use control over the March JPA planning area, due to the planned sunsetting/dissolution of the March Joint Powers Authority. Accordingly, consistency with the County's CAP provides an additional metric to determine if the Project's impacts are significant and provides an appropriate set of policies that are intended to guide development within unincorporated Riverside County.

To evaluate consistency with the CAP, the County provided screening tables to aid in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated into development projects. The CAP contains a menu of measures potentially applicable to discretionary development that include energy conservation, water use reduction, increased residential density or mixed uses, transportation management, and solid waste recycling. Individual sub-measures are assigned a point value within the overall screening table of GHG implementation measures. The point values are adjusted according to the intensity of action items with modest adoption/installation (those that reduce GHG emissions by modest amounts) worth the least number of points, and greatly enhanced adoption/installation worth the most (County of Riverside 2019). Projects that garner at least 100 points (equivalent to an approximate 49% reduction in GHG emissions) are determined to be consistent with the reduction quantities anticipated in the County's CAP Update, and consequently would be consistent with the CAP. As such, projects that achieve a total of 100 points or more are considered to have a less-than-significant individual and cumulative impact on GHG emissions (County of Riverside 2019).

4.7.3 Project Design Features

The following Project Design Feature (PDF) has been incorporated into the Project and the impact analysis in Section 4.7.5 below. Additionally, please see Section 4.2.3 for **PDF-AQ-2**, which also applies to the Project.

PDF-GHG-1 Conduit shall be installed in truck courts in logical locations that would allow for the future installation of charging stations for electric trucks, in anticipation of this technology becoming available.

4.7.4 Thresholds of Significance

The significance criteria used to evaluate the Project's impacts to GHGs and climate change are based on March JPA's CEQA Guidelines (March JPA 2022). According to March JPA's 2022 CEQA Guidelines, a significant impact related to GHG emissions would occur if the Project would:

GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

For Threshold GHG-1, in the absence of any adopted quantitative threshold, March JPA, as the lead agency, has determined that the Project would not have a significant effect on the environment if the Project is found to be consistent with the applicable regulatory plans and policies to reduce GHG emissions analyzed in Threshold GHG-2.

For Threshold GHG-2, the Project was evaluated for the following:

- Consistency with AB 32/SB 32 through evaluating the Project's consistency and compliance with applicable statewide and local regulatory programs designed to reduce GHG emissions consistent with AB 32/SB 32.
- Project consistency with the CAP using the CAP Screening Tables. Since the County of Riverside CAP was developed using AB 32/SB 32, this approach also supports the Project's consistency with AB 32/SB 32.
- Consistency with SB 375. Consistency with SB 375 was evaluated based on the growth assumptions of SCAG's 2016-2040 RTP/SCS and 2020-2045 RTP/SCS. With regard to individual developments, strategies, and policies set forth in the 2020-2045 RTP/SCS, the Project will discuss consistency with the following three categories:
    - Reduction of vehicles trips and vehicle miles traveled (VMT)
    - Increased use of alternative fuel vehicles
    - Improved energy efficiency.

4.7.4.1 Approach and Methodology

Construction Emissions

In May 2022, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association and other California Air Quality Management Districts, released the latest version of CalEEMod (v2022.1). Accordingly, the latest version of CalEEMod was used for this Project to determine GHG emissions. All details for construction criteria air pollutants discussed in Section 4.2, Air Quality, and Appendix C-1 of this Draft EIR are also applicable for the estimation of construction-related GHG emissions. As such, see Section 4.2 or Appendix C-1 for a discussion of construction emissions calculation methodology and assumptions. Additionally, GHG emissions associated with electricity usage from on-site Project construction-related activities has been included. Per the *West Campus Upper Plateau Energy Analysis*, the Project would generate 15,316,256 kWh of electricity from construction-related acitivities.

Operational Emissions

Operational activities associated with the Project would result in emissions of CO_2, CH_4, and N_2O from area, energy, mobile, on-site equipment, water supply treatment and distribution, and solid waste sources.

Project operations and Project site maintenance activities would result in the consumption of electricity. The Project is all-electric and would not use natural gas. Electricity would be supplied to the Project by Southern California Edison. The intensity factors for CH_4 and N_2O used for the Project were based on default emission factors within CalEEMod.

The 2019 version of Title 24 was adopted by the CEC and became effective on January 1, 2020. As such, the analysis herein assumes compliance with the 2019 Title 24 standards because the Project would be constructed after January 1, 2020. This is likely conservative as the 2022 Title 24 standards will be in effect beginning January 1, 2023.

The Project related operational emissions derive primarily from vehicle trips generated by the Project. Trip characteristics available from the West Campus Upper Plateau Traffic Analysis were utilized in this analysis. The mobile-source emissions were calculated based on trip rates and trip lengths. Detailed operational model outputs are presented in Appendix C-1. Per the West Campus Upper Plateau Traffic Analysis, the Project is expected to generate a total of approximately of 35,314 trip-ends per day.

To determine emissions associated with the retail, active park, and public park land uses from all vehicle types (Light-Duty-Auto vehicles [LDA], Light-Duty Trucks [LDT1],[3] Light-Duty Trucks [LDT2],[4] Medium-Duty Trucks [MDV], Other Buses [OBUS],[5] Urban Buses [UBUS],[6] Motorcycle [MCY], School Buses [SBUS], and Motor Homes [MH], heavy duty trucks (2-axle/Light-Heavy-Duty Trucks [LHDT1[7] and LHDT2[8]], 3-axle/Medium-Heavy-Duty Trucks [MHDT], and 4+-axle/Heavy-Heavy-Duty Trucks [HHDT]), the CalEEMod default for vehicle type, trip purpose and one-way trip length of 16.6 miles was employed.

The Project-specific passenger car fleet mix used in this analysis is based on a proportional split using the default CalEEMod percentages assigned to LDA, LDT1, LDT2, MDV, and MCY vehicles types. The truck types (LHDT1, LHDT2, MHDT, and HHDT) were broken down consistent with the Project's Traffic Analysis (Appendix N). To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 14.2 miles for 2-axle and 3-axle (LHDT1, LHDT2, and MHDT) trucks and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages taken from the West Campus Upper Plateau Traffic Study (SCAQMD 2021). The trip length function for the high-cube fulfillment center and the business park uses has been conservatively calculated to 32.03 miles, with an assumption of 100% primary trips for the proposed industrial land uses. **PDF-GHG-1** is included to reduce emissions from mobile sources during operation (see Section 4.7.3 for full text of this PDF).

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. In accordance with the County of Riverside Good Neighbor Policy for Logistics and Warehouse/Distribution Uses, the analysis takes into account **PDF-AQ-2** whereby all on-site cargo handling equipment would be electrically powered.

---

3 Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

4 Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

5 OBUS vehicle classes refers to all other buses except school buses and urban buses.

6 UBUS vehicle classes consist of natural gas buses, gasoline buses, and diesel buses.

7 Vehicles under the LHDT1 category have a GVWR of less than 8,501-10,000 lbs.

8 Vehicles under the LHDT2 category have a GVWR of less than 10,001-14,000 lbs.

In order to account for the possibility of refrigerated uses, trucks associated with the cold-storage land use are assumed to also have TRUs. Therefore, for modeling purposes 376 trucks (188 two-way truck trips per day) have the potential to include TRUs. TRUs are accounted for during on-site and off-site travel. The TRU calculations are based on EMFAC2021, developed by the CARB. EMFAC2021 does not provide emission rates per hour or mile as with the on-road emission model and only provides emission inventories. Emission results are produced in tons per day while all activity, fuel consumption and horsepower hours were reported at annual levels. The emission inventory is based on specific assumptions including the average horsepower rating of specific types of equipment and the hours of operation annually. These assumptions are not always consistent with assumptions used in the modeling of project level emissions. Therefore, the emissions inventory was converted into emission rates to accurately calculate emissions from TRU operation associated the Specific Plan buildout scenario analyzed in this EIR. This was accomplished by converting the annual horsepower hours to daily operational characteristics and converting the daily emission levels into hourly emission rates based on the total emission of each criteria pollutant by equipment type and the average daily hours of operation.

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 and the sources of the water. CalEEMod default parameters were used to estimate GHG emissions associated with water supply, treatment, and distribution for the Specific Plan buildout scenario.

GHG emissions from waste generation were also calculated in CalEEMod and are based on the Intergovernmental Panel on Climate Change's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CAPCOA 2022). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by CalRecycle. CalEEMod based solid waste generation on a 2008 waste characterization study. Since the publication of the 2008 survey, statewide diversion has increased by approximately 25%. This additional reduction has been included in the modeling.

4.7.5 Impacts Analysis

Threshold GHG-1. ***Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

and

Threshold GHG-2. ***Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

In the absence of any adopted quantitative threshold, March JPA, as the lead agency, has determined that a project would not have a significant effect on the environment if it is found to be consistent with the applicable regulatory plans and policies to reduce GHG emissions identified below. Consistency with Senate Bill 32/2017 Scoping Plan, County of Riverside's Climate Action Plan, Senate Bill 375/Southern California Association of Governments' Connect SoCal.

Pursuant to Section 15064.4 of the CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions. As such, the Specific Plan Area's consistency with AB 32, SB 32, SB 375, and the County's CAP are discussed below.

Senate Bill 32/2017 Scoping Plan Consistency

The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by EO B-30-15 and codified by SB 32 (CARB 2017). Table 4.7-3 summarizes the Specific Plan Area's consistency with the 2017 Scoping Plan. As summarized, the Specific Plan Area would not conflict with any of the provisions of the 2017 Scoping Plan.

Table 4.7-3. 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
Implement Senate Bill 350 by 2030		
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	California Public Utilities Commission, CEC, CARB	**Consistent**. The Specific Plan Area 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 Specific Plan would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		**Consistent**. The Specific Plan Area would be designed and constructed to implement the energy efficiency measures for new commercial developments and would include several measures designed to reduce energy consumption. The Specific Plan would not interfere with or obstruct policies or strategies to establish annual targets for statewide energy efficiency savings and demand reduction.
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.		**Consistent**. The Specific Plan Area would be designed and constructed to implement energy efficiency measures acting to reduce electricity consumption. The Specific Plan Area would include energy efficient lighting and fixtures that meet the current Title 24 Standards. Further, the Specific Plan proposes contemporary industrial facilities that would incorporate energy efficient boilers, heaters, and air conditioning systems.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of	**Not applicable**. This is a CARB Mobile Source Strategy. The Specific Plan would not obstruct or interfere with CARB zero emission or plug-in hybrid light-duty electric vehicle 2025 targets. The Specific Plan Area would include 20 EV charging stations supporting plug-in hybrid vehicles. **PDF-GHG-1** includes installing

Table 4.7-3. 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
	Transportation (Caltrans), CEC, Office of Planning and Research (OPR), Local Agencies	conduit for future charging of trucks on site.
At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.		**Not applicable**. This is a CARB Mobile Source Strategy. The Specific Plan would not obstruct or interfere with CARB zero emission or plug-in hybrid light-duty electric vehicle 2030 targets. The Specific Plan Area would include 20 EV charging stations supporting plug-in hybrid vehicles. **PDF-GHG-1** includes installing conduit for future charging of trucks on site.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Cars (ACC) regulations.		**Not applicable**. This is a CARB Mobile Source Strategy. The Specific Plan would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing ACC regulations.
Medium- and Heavy-Duty GHG Phase 2.		**Not applicable**. This is a CARB Mobile Source Strategy. The Specific Plan would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_x standard.		**Not applicable**. This is a CARB Mobile Source Strategy. The Specific Plan would not obstruct or interfere with CARB efforts to improve transit-source emissions.
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.		**Not applicable**. This is a CARB Mobile Source Strategy. The Specific Plan would not obstruct or interfere with CARB efforts to improve last-mile delivery emissions.
Further reduce vehicle miles traveled (VMT) through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile		**Consistent**. The proposed Specific Plan Area represents 0.90% of the anticipated increase in jobs, and therefore, would not result in long-term operational employment growth that exceeds planned growth projections in the RTP/SCS or the AQMP, or result in employment growth

Table 4.7-3. 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		that would substantially add to traffic congestion.
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	**Not applicable**. This is a CARB Mobile Source Strategy. The Specific Plan would not obstruct or interfere with CARB efforts to increase stringency of the SB 375 Sustainable Communities Strategy (2035 targets).
By 2019, Adjust Performance Measures Used to Select and Design Transportation Facilities		
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g., via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank, Department of Finance, California Transportation Commission (CTC), Caltrans	**Not applicable**. The Specific Plan would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions or increase competitiveness of transit and active transportation modes.
By 2019, develop pricing policies to support low-GHG transportation (e.g., low-emission vehicle III zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	**Not applicable**. The Specific Plan Area would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, California Environmental Protection Agency (CalEPA), California Natural Resources Agency (CNRA), CARB, Caltrans, CEC, GO-Biz	**Consistent**. This measure would apply to all trucks accessing the Specific Plan Area. This may include existing trucks or new trucks that are part of the statewide goods movement sector. The Specific Plan would not obstruct or interfere with agency efforts to improve freight system efficiency.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.		**Consistent**. The Specific Plan would not obstruct or interfere with agency efforts to deploy over 100,000 freight vehicles and equipment capable of zero-emission operation and maximize both zero- and near-zero emission freight vehicles and equipment powered by renewable energy by 2030. The Specific Plan Area would include all electric cargo-handling equipment. **PDF-GHG-1** includes installing conduit for future charging of trucks on site.

Table 4.7-3. 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
Adopt a LCFS with a Carbon Intensity reduction of 18%.	CARB	**Consistent**. When adopted, this measure would apply to all fuel purchased and used by the Specific Plan Area in the state. The Specific Plan would not obstruct or interfere with agency efforts to adopt a Low-Carbon Fuel Standard (LCFS) with a carbon intensity reduction of 18%.
Implement the Short-Lived Climate Pollutant Strategy by 2030		
40% reduction in methane and hydrofluorocarbon emissions below 2013 levels. 50% reduction in black carbon emissions below 2013 levels.	CARB, CalRecycle, California Department of Food and Agriculture (CDFA), State Water Resources Board (SWRCB), Local Air Districts	**Consistent**. The Specific Plan Area would be required to comply with this measure and reduce any Project-source Short-Lived Climate Pollutant Strategy (SLPS) emissions accordingly. The Specific Plan would not obstruct or interfere with agency efforts to reduce SLPS emissions.
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	**Consistent**. The Specific Plan Area would implement waste reduction and recycling measures consistent with state and County of Riverside requirements. The Specific Plan would not obstruct or interfere with agency efforts to support organic waste landfill reduction goals in the SLCP or SB 1383.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	**Consistent**. The Specific Plan Area would be required to comply with any applicable Cap-and-Trade Program provisions. The Specific Plan would not obstruct or interfere with agency efforts to implement the post-2020 Cap-and-Trade Program.
By 2018, Develop Integrated Natural and Working Lands Implementation Plan to Secure California's Land Base as a Net Carbon Sink		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	**Consistent.** The Project will place approximately 445.43 acres of land under conservation easement. The Project would not obstruct or interfere with agency efforts to protect land from conversion through conservation easements and other incentives.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity		**Consistent.** The Project site is vacant disturbed property and does not comprise an area that would effectively provide for carbon sequestration. The Specific Plan would require a minimum of 10% landscaping on Industrial and Business Park parcels and 20% on Mixed-Use parcels, along with streetscape landscaping. This required landscaping, which includes both deciduous and

Table 4.7-3. 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
		evergreen trees, will increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		**Consistent**. Where appropriate, Specific Plan Area design would incorporate wood or wood products. The Specific Plan would not obstruct or interfere with agency efforts to encourage use of wood or agricultural products to increase the amount of carbon stored in the natural and built environments.
Establish scenario projections to serve as the foundation for the Implementation Plan		**Not applicable**. The Specific Plan would not obstruct or interfere with agency efforts to establish scenario projections to serve as the foundation for the Implementation Plan.
Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018	CARB	**Not applicable**. CARB adopted the California 2030 Natural and Working Lands Climate Change Implementation Plan in 2019. As such, the Specific Plan would not obstruct or interfere with agency efforts to establish a carbon accounting framework for natural and working lands as described in the plan.
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments Within	**Not applicable**. The Specific Plan would not obstruct or interfere with agency efforts to implement the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State and Local Agencies	**Not applicable**. The Specific Plan would not obstruct or interfere with agency efforts to identify and expand funding and financing mechanisms to support GHG reductions across all sectors.

Source: CARB 2017; Appendix I.

As shown in Table 4.7-3, the Specific Plan Area would not conflict with any of the 2017 Scoping Plan elements, since any regulations adopted would apply directly or indirectly to the Specific Plan Area. Further, recent studies show that the state's existing and proposed regulatory framework, as discussed under Section 4.7.2, Relevant Plans, Policies, and Ordinances, would allow the state to reduce its GHG emissions level to 40% below 1990 levels by 2030 (LBNL 2015b). It should be noted that the downward trajectory from AB 32 to SB 32 is greater than that from AB 32 to EO S-3-05 of 80% below 1990 by 2050 (CARB 2017). By analyzing the Specific Plan Area against the consistency with the next legislatively adopted target (2030), this analysis demonstrates that the Specific Plan Area would demonstrate progress, and be on the trajectory, towards helping the state comply with its long-term targets in EO S-3-05.

Consistency with the 2022 CARB Scoping Plan

As previously noted, the 2022 Scoping Plan aims to reduce GHG emissions by 85% below 1990 levels and achieve carbon neutrality by 2045 (CARB 2022b). The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world.

The Project would not impede the State's progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The Project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan. Some of the current transportation sector policies the Project will comply with (through vehicle manufacturer compliance) include: Advanced Clean Cars II, Advanced Clean Trucks, Advanced Clean Fleets, Zero Emission Forklifts, the Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, In-use Off-Road Diesel-Fueled Fleets Regulation, Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation, carbon pricing through the Cap-and-Trade Program, and the Low Carbon Fuel Standard. Further, the Project will implement **MM GHG-1** through **MM GHG-11** which are discreet mitigation measures aimed at reducing GHG emissions. As noted in the analysis herein, compliance with these mitigation measures will ensure that the Project would be consistent with the Riverside County CAP. **MM-GHG-11** will improve the local public transit network through the provision of funding for a new bus shelter on Alessandro Boulevard. Additionally, **MM-AQ-2** through **MM-AQ-15** will further reduce Project GHG emissions and VMT, including increased implementation and availability of vehicle and equipment electrification, Transportation Demand Management programs, and optimization of vehicle access and activity. The Project would also reduce area VMT (see, Section 4.15, Transportation). As such, the Project would not be inconsistent with the 2022 Scoping Plan.

Consistency with the County of Riverside's Climate Action Plan

The Specific Plan Area's final plans and designs would conform to provisions of the CAP through implementation of the Screening Table Measures listed at Table 4.7-4.

The Project site is located in the jurisdiction of the March JPA within the County of Riverside. Although the County of Riverside does not currently have direct authority over the Project, consistency with the County's CAP provides an additional metric to determine if the Project's impacts are significant.

The Project shall implement Screening Table Measures providing for a minimum 100 points per the County Screening Tables. With implementation of **Mitigation Measure (MM) GHG-1** through **MM-GHG-11**, the Project would be consistent with the CAP's requirement to achieve at least 100 points and thus the Project is considered to have a less than significant individual and cumulatively considerable impact on GHG emissions. The March JPA shall verify incorporation of the identified Screening Table Measures within the Project building plans and site designs prior to the issuance of building permit(s) and/or site plans (as applicable). The March JPA shall verify implementation of the identified Screening Table Measures prior to the issuance of Certificate(s) of Occupancy.

An example of how the Project will achieve a minimum of 100 Screening Table Points for Commercial/Industrial and Public Facilities is provided at Table 4.7-4. Measures that achieve equivalent points or emissions reductions may be substituted.

Table 4.7-4. Climate Action Plan Consistency

Feature	Description	Points
EE10.A.1 Insulation	Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38)	11
EE10.A.2 Windows	Greatly Enhanced Window Insulation (0.28 or less U-factor, 0.22 or less SHGC)	7
EE10-A.3 Cool Roofs	Modest Cool Roof (CRRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance)	7
EE10.A.4 Air Infiltration	Blower Door HERS Verified Envelope Leakage of equivalent	6
EE10.B.1 Heating/Cooling Distribution System	Modest Duct Insulation (R-6)	5
EE10.B.2 Space Heating/Cooling Equipment	Improved Efficiency HVAC (EER 14/78% AFUE or 8 HSPF)	4
EE10B.4 Water Heaters	High Efficiency Water Heater (0.72 Energy Factor)	10
EE10.B.5 Daylighting	All rooms daylighted	1
EE10.B.6 Artificial Lighting	High Efficiency Lights (50% of in-unit fixtures are high efficiency)	7
W2.E.2 Toilets	Water Efficient Toilets/Urinals (1.5 gpm)	6
	Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)	
W2.E.3 Faucets	Water Efficient faucets (1.28 gpm)	2
T4.B.1 Electric Vehicle Recharging	Install EV charging stations in garages/parking areas	160*
	Total Points Earned by Commercial/Industrial Project	**226**

Source: County of Riverside 2019; Appendix I.

Note:

* The Project is anticipated to include a minimum of 20 electric-vehicle charging stations. Per the Screening Tables, each station is 8 points. (County of Riverside 2019).

Projects that garner at least 100 points through application of the Screening Table Measures are determined to be consistent with the reduction quantities anticipated in the County's CAP, and consequently would be consistent with the CAP. The Project would implement Screening Table Measures that would provide a minimum of 100 Screening Table Points, and would therefore be considered consistent with the County's CAP. The Screening Table Measures applicable to the Project would be implemented through **MM-GHG-1** through **MM-GHG-11.**

The County's CAP currently evaluates and quantifies reductions out to 2030. The CAP states, "Through 2050, Riverside County would continue implementation of the Screening Tables. During this time, the reduction measures implemented through the Screening Tables would continue to reduce GHG missions from new development. Additionally, it is assumed that the state measures would keep being updated and reinforced to further reduce emissions. With these assumptions, Riverside County's emissions would decrease to a level below the reduction target by 2050" (County of Riverside 2019). Thus, compliance with the County's CAP would serve to meet and support the reduction targets established in SB 32 and the CARB 2017 Scoping Plan.

Consistency with Senate Bill 375 (SCAG Regional Transportation Plan/Sustainable Communities Strategy)

The proposed Specific Plan Area would increase regional employment by approximately 2,600 jobs (Appendix O). According to SCAG's 2020–2045 RTP/SCS, employment within Riverside County in 2019 is approximately 812,800 jobs with an anticipated increase to approximately 1,102,700 jobs by 2045, a growth of approximately 289,900 jobs (SCAG 2020). The proposed Specific Plan Area represents 0.90% of the anticipated increase in jobs, and therefore, would not result in long-term operational employment growth that exceeds planned growth projections in the RTP/SCS or an Air Quality Management Plan, or result in employment growth that would substantially add to traffic congestion. SCAG's Connect SoCal (2020–2045 RTP/SCS) was adopted on September 3, 2020. Additionally, the Project would comply with the policies set forth in the 2020-2045 RTP/SCS by reducing vehicle trips and VMT, increasing the use of alternative fuel vehicles, and improving energy efficiency. The major goals of SCAG's Connect SoCal are outlined in Table 4.7-5, along with the Project's consistency with them.

Table 4.7-5. Project Consistency with the SCAG Connect SoCal RTP/SCS

RTP/SCS Measure	Proposed Project Consistency
Encourage regional economic prosperity and global competitiveness.	***Consistent.*** The Specific Plan Area is anticipated to generate approximately 2,600 full-time employees, which could be filled by existing residents of the County. As such, the Specific Plan Area would contribute nominally to the balanced jobs-housing ratio under existing and future conditions of Riverside County. Thus, Riverside County would maintain a relatively balanced jobs-housing ratio with the implementation of the Specific Plan. Additionally, the Specific Plan Area would provide annual economic contribution to the Riverside County region.
Improve mobility, accessibility, reliability, and travel safety for people and goods.	***Consistent.*** The Specific Plan would incorporate designated truck routes for proposed operations (as shown in Figure 3-6, Proposed Truck Routes), which would not inhibit SCAG from strengthening the regional transportation network for goods movement.
Enhance the preservation, security, and resilience of the regional transportation system.	***Not Applicable.*** The Specific Plan would not inhibit SCAG from enhancing the resilience of the regional transportation system.
Increase person and goods movement and travel choices within the transportation system.	***Consistent.*** The Specific Plan Area would introduce goods movement land uses. The Specific Plan Area would be accessed through the extension of existing streets that have been planned in the March JPA General Plan (see Figure 3-6). The Specific Plan would be consistent with the March JPA guidelines and would support SCAG's goal of increasing person and goods movement and travel choices within the transportation system. As provided in Section 4.15, Transportation, the Specific Plan Area would include site adjacent and site access features to reduce operational-related transportation impacts.
Reduce greenhouse gas emissions and improve air quality.	***Consistent***. The Specific Plan Area would create a new job center within March JPA planning area, which would contribute nominally to the balanced jobs-housing ratio under existing and future conditions of Riverside County. Implementation of the proposed Specific Plan would reduce traffic congestion, pollution, and fossil fuel dependence.
Support healthy and equitable communities.	***Consistent***. The Specific Plan Area would provide local jobs to the local and regional vicinity. The Project is anticipated to

Table 4.7-5. Project Consistency with the SCAG Connect SoCal RTP/SCS

RTP/SCS Measure	Proposed Project Consistency
	generate approximately 2,600 full-time jobs, which could be filled by existing residents of the Riverside County and, thus, reduce unemployment in the County. Implementation of the proposed Specific Plan Area would reduce traffic congestion, pollution, and fossil fuel dependence.
Adapt to a changing climate and support an integrated regional development pattern and transportation network.	***Consistent***. The Specific Plan Area would provide local jobs to the local and regional vicinity, which would reduce traffic congestion, pollution, and fossil fuel dependence. As shown in Section 4.15 of this EIR, the Specific Plan would have less than significant transportation related impacts.
Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	***Consistent***. The Specific Plan Area would be consistent with the March JPA General Plan (see Table 4.10-2) which promotes efficient truck travel with close proximity to freeways. As such, the Specific Plan would not inhibit SCAG from leveraging technology for the transportation system. **PDF-GHG-1** includes installing conduit for future charging of trucks on site.
Encourage development of diverse housing types in areas that are supported by multiple transportation options.	***Not Applicable.*** The Specific Plan would not result in housing production on site, nor would it induce substantial unplanned population growth (see Section 4.12, Population and Housing, of this EIR). In summary, Specific Plan would not inhibit SCAG from encouraging development of diverse housing types.
Promote conservation of natural and agricultural lands and restoration of habitats.	***Consistent***. The Project will place approximately 445.43 acres of land under conservation easement. The Project would promote conservation of natural lands.

Source: SCAG 2020.
Note: RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy

The Specific Plan would be consistent with Senate Bill 32/2017 Scoping Plan, County of Riverside's Climate Action Plan, and Senate Bill 375/Southern California Association of Governments' Connect SoCal with the implementation of **MM-GHG-1** through **MM-GHG-11**, which require the Specific Plan Area to install solar photovoltaic panels on site, install Energy Star lighting fixtures; install duct insulation and window insulation; install cool roof material; install enhanced building envelope insulation; provide enhanced window insulation; provide blower door home energy rating system verified envelope leakage; install a minimum of 20 EV charging stations; improved HVAC; high efficiency water heaters; include daylighting; water efficient toilets; waterless urinals; and water efficient faucets. Thus, the Project's impacts in relation to applicable regulatory plans and policies to reduce GHG emissions would be **less than significant with mitigation incorporated**.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No construction activities would occur within the Conservation Easement, and no change to existing conditions would occur. As such, **no impacts** with respect to GHG emissions would occur with the establishment of the Conservation Easement.

In the absence of any adopted quantitative threshold, March JPA, as the lead agency, has determined that a project would not have a significant effect on the environment if it were found to be consistent with the applicable regulatory plans and policies to reduce GHG emissions identified in Threshold GHG-2. As such, the quantification of the Specific Plan Area's GHG emissions during construction and operation is presented herein for informational purposes only.

Construction

For construction-phase emissions, GHGs were quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year Project life, then adding that number to the annual operational-phase GHG emissions (SCAQMD 2009). As such, 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 4.7-6.

Table 4.7-6. Amortized Annual Construction Emissions

Year	Construction Equipment CO_2e Emissions (metric tons per year)	On-Road Vehicle CO_2e Emissions (metric tons per year)	Total CO_2e Emissions (metric tons per year)
2023	6,559.00	625.70	7,184.70
2024	3,612.00	2,756.57	6,368.57
2025	617.00	4,327.00	4,944.00
2026	487.00	3,866.00	4,353.00
2027	94.40	949.40	1,043.80
Electricity from Construction	—	—	2,454.00
Total Annual Construction Emissions	**11,275.00**	**11,575.27**	**26,348.07**
Amortized Construction Emissions (Metric Tons CO_2e)			878.27

Source: Appendix I.
Note: CO_2e = carbon dioxide equivalent

Operations

The annual GHG emissions associated with operation of the Specific Plan Area are estimated to be 93,427 MT CO_2e per year, as summarized in Table 4.7-7.

Table 4.7-7. Project Greenhouse Gas Emissions (without Mitigation)

Emission Source	CO_2e Emissions (metric tons per year) – Unmitigated
Annual Construction-Related Emissions Amortized Over 30 Years	878.27
Mobile Source	78,376.00
Area Source	104.00
Energy Source	7,287.00
Water Usage	2,553.00
Waste	1,465.00
Refrigerants	84.90
TRU Source	2,678.41
Project Total CO_2e Emissions (All Sources)	**93,426.58**

Source: Appendix I.
Note: CO_2e = carbon dioxide equivalent
Includes application of **PDF-GHG-1** includes installing conduit for future charging of trucks on site.

To reduce the Specific Plan's GHG emissions, the Specific Plan would implement Mitigation Measure **MM-GHG-1**, which requires the Specific Plan to install a solar photovoltaics electricity generation system to offset approximately 30% of the Specific Plan Area's electrical demand. This would reduce GHG emissions from energy use by 2,416 MT CO_2e per year. After implementation of **MM-GHG-1**, the total operational GHG emissions from the Specific Plan Area would be 91,011 MT CO_2e per year. Impacts would be **less than significant with the incorporation of mitigation**. It should be noted that emission reductions from implementation of **MM-GHG-2** through **MM-GHG-11** are not readily quantifiable, therefore no reduction in emissions has been taken.

4.7.6 Mitigation Measures

CEQA Guidelines Section 15126.4 requires EIRs to describe feasible measures that can minimize significant adverse impacts. The following operational mitigation measures have been evaluated for feasibility and are incorporated herein to reduce impacts related to GHG emissions.

MM-GHG-1 Prior to issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating solar photovoltaic (PV) electricity generation sufficient to generate at least 30% of the building's power requirements will be installed as part of the building permit or has already been installed under a previously issued building permit for the Project. All solar photovoltaic systems shall be reviewed by March Air Reserve Base through a glint and glare study. The schedule of solar voltaic system locations may be updated as needed.

MM-GHG-2 Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating all light bulbs and light features within the Project are Energy Star certified.

MM-GHG-3 Prior to the issuance of each building permit, the applicant will provide March Joint Powers Authority with sufficient evidence demonstrating the building will install duct insulation to a minimum level (R-6) of and modestly enhanced window insulation (0.28 or less U-factor, 0.22 or less SHGC) consistent with the Riverside County Climate Action Plan criteria.

MM-GHG-4 Consistent with the Climate Action Plan criteria and prior to the issuance of each building permit, the applicant shall provide March JPA with sufficient evidence demonstrating the building will include the following design elements: Construction of modest cool roof, defined as Cool Roof Rating Council (CRRC) Rated 0.15 aged solar reflectance and 0.75 thermal emittance; Use of heating, ventilation, and air conditioning (HVAC) equipment with a season energy efficiency ratio (SEER) of 14 or higher and energy efficiency ratio [EER] 14/78% annual fuel utilization efficiency [AFUE] or 8 heating seasonal performance factor [HSPF]; Installation of water heaters with an energy factor of .92 or higher; All rooms will have some form of daylighting (e.g., skylights or windows).

MM-GHG-5 Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide enhanced insulation (rigid wall insulation R-13, roof/attic R-38).

MM-GHG-6 Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide blower door home energy rating system (HERS) verified envelope leakage or equivalent.

MM-GHG-7 The Project will provide circuitry and capacity for installation of a minimum of 20 EV charging stations consistent with the County's Climate Action Plan.

MM-GHG-8 Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide water efficient toilets (1.5 gallons per minute [gpm]).

MM-GHG-9 Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide waterless urinals.

MM-GHG-10 Prior to the issuance of each building permit, the applicant shall provide March Joint Powers Authority with sufficient evidence demonstrating the building will provide water efficient faucets (1.28 gpm).

MM-GHG-11 Prior to the issuance of any grading permit, the Project will provide an in-lieu payment to the March Joint Powers Authority for the installation of a bus shelter on Alessandro Boulevard, not to exceed $17,000. If the bus shelter is not installed within 7 years of Project approval, the amount will be refunded to the developer.

4.7.7 Level of Significance After Mitigation

As discussed in Section 4.7.3, the significance determination is based on the Project's consistency with applicable GHG reduction plans. For Thresholds GHG-1 and GHG-2, with implementation of **MM-GHG-1** through **MM-GHG-11**, the Project will be consistent with the applicable GHG reduction plans and GHG impacts would be **less than significant with mitigation incorporated.**

Upon implementation of the quantifiable **MM-GHG-1**, the annual GHG emissions associated with operation of the Project is estimated to be 91,011 MT CO_2e per year, as summarized in Table 4.7-8. It should be noted that emission reductions from implementation of **MM-GHG-2** through **MM-GHG-11** are not readily quantifiable, therefore no reduction in emissions has been taken. Additionally, **MM-AQ-8** would encourage tenants to operate alternative fueled trucks and become SmartWay Partners. As such, the mitigated GHG emissions are presented below for informational purposes only.

Table 4.7-8. Project Greenhouse Gas Emissions (with Mitigation)

Emission Source	CO_2e Emissions (metric tons per year) – Unmitigated
Annual Construction-Related Emissions Amortized Over 30 Years	878.27
Area Source	104.00
Energy Source	4,871.00
Mobile Source	78,376.00
TRU Source	2,678.41
Waste	1,465.00
Water Usage	2,553.00
Refrigerants	84.90
Project Total CO_2e Emissions (All Sources)	**91,010.58**

Source: Appendix I.
Note: CO_2e = carbon dioxide equivalent
Includes application of **PDF-GHG-1** includes installing conduit for future charging of trucks on site.

4.7.8 Cumulative Effects

GHG emissions inherently contribute to cumulative impacts, and, thus, any additional GHG emissions would result in a cumulative impact. Development of the Project site would be consistent with the County's CAP and would not result in a conflict with the adopted CAP; would support the SCAG 2020–2040 RTP/SCS by providing local jobs and through incorporation of energy efficiency, water conservation, and electric-vehicle parking infrastructure; and would demonstrate consistency with the Scoping Plan. Given the Project's consistency with statewide, regional, and local plans adopted for the purpose of reducing GHG emissions, the Project's emissions and their effects on climate change would not be cumulatively considerable. Furthermore, the Project would be consistent with SB 32, the County's CAP, and SB 375. The Project would implement **MM-GHG-1** through **MM-GHG-11** to further reduce the Project's GHG emissions. Therefore, the Project would result in a **less-than-cumulatively-considerable** GHG emissions impact.

4.7.9 References Cited

C2ES (Center for Climate and Energy Solutions). 2015. *Outcomes of the U.N. Climate Change Conference*. http://www.c2es.org/international/negotiations/cop21-paris/summary.

CAPCOA (California Air Pollution Control Officers Association). 2022. *CalEEMod California Emissions Estimator Model User's Guide Version 2022.1.0*. May. https://www.caleemod.com/.

CARB (California Air Resources Board). 2008. *Climate Change Scoping Plan: A Framework for Change*. October, approved December 12, 2008. Accessed June 20, 2018. http://climatechange.ca.gov/eaac/documents/state_reports/Adopted_ Scoping_Plan.pdf.

CARB. 2014. *First Update to the Climate Change Scoping Plan.* https://ww3.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

CARB. 2017. *California's 2017 Climate Change Scoping Plan*. November 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

CARB. 2019. *Status of Scoping Plan Recommended Measures*. Accessed September 19, 2019. https://ww3.arb.ca.gov/cc/scopingplan/status_of_scoping_plan_measures.pdf.

CARB. 2022a. California Greenhouse Gas Emissions for 2000 to 2020 Trends of Emissions and Other Indicators. October 26. Accessed November 2022. https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf.

CARB. 2022b. Final 2022 Scoping Plan Update. December 15. Accessed December 2022. https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf.

CEC (California Energy Commission). 2013. *Pacific Coast Action Plan on Climate and Energy*. Signed by the Governments of California, British Columbia, Oregon, and Washington. October 28, 2013. https://www.energy.ca.gov/sites/default/files/2019-12/pacific_coast_ada.pdf.

CEC. 2020. *Final 2020 Integrated Energy Policy Report Update.* March 2021. Accessed May 2021. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2020-integrated-energy-policy-report-update.

County of Riverside. 2019. *Updated Riverside County Climate Action Plan*. December 17, 2019.

EPA (U.S. Environmental Protection Agency). 2009. *Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act.* https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean.

EPA. 2019. "SmartWay." Accessed December 2019. https://www.epa.gov/smartway/learn-about-smartway.

EPA and NHTSA (National Highway Traffic Safety Administration). 2018. *The Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks*. August 24, 2018. https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-0756.

IPCC (Intergovernmental Panel on Climate Change). 2007. *GWP for the Second Assessment Report*.

IPCC. 2016. *GWP for the Fifth Assessment Report, the Intergovernmental Panel on Climate Change.*

LBNL (Lawrence Berkeley National Laboratory). 2015a. *Modeling California Policy Impacts on Greenhouse Gas Emissions*. https://eaei.lbl.gov/sites/all/files/lbnl-7008e.pdf.

LBNL. 2015b. *California's Policies Can Significantly Cut Greenhouse Gas Emissions through 2030*. January 22, 2015. http://newscenter.lbl.gov/2015/01/22/californias-policies-can-significantly-cut-greenhouse-gas-emissions-2030/.

March JPA (Joint Powers Authority). 1999. *General Plan of the March Joint Powers Authority*. https://www.marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

March JPA. 2022. *Local Guidelines for Implementing the California Environmental Quality Act for March Joint Powers Authority and March Inland Port Airport Authority and Successor Agency of the Former March Joint Power Redevelopment Agency and March Joint Powers Utilities Authority*. https://www.marchjpa.com/documents/docs_forms/05172022_MJPA_2022_CEQA_Guidelines.pdf.

SCAG (Southern California Association of Governments). 2020. *Connect SoCal. The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments.* Adopted May 7, 2020. https://www.connectsocal.org/Documents/Adopted/fConnectSoCal-Plan.pdf.

SCAQMD (South Coast Air Quality Management District). 2009. *Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group #13.* [Powerpoint].

SCAQMD 2021. WAIRE Implementation Guidelines. June. Accessed December 2022. http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/waire-implementation-guidelines.pdf?sfvrsn=12.

United Nations. 2019a. "GHG Profiles - Annex I." http://di.unfccc.int/ghg_profile_annex1.

United Nations. 2019b. "GHG Profiles - Non-Annex I." http://di.unfccc.int/ghg_profile_non_annex1.

WCI (Western Regional Climate Action Initiative). 2021. “Program Design and Implementation.” Accessed April 2021. https://wci-inc.org/our-work/program-design-and-implementation.

World Resources Institute. 2019. Climate Analysis Indicator Tool (CAIT). Accessed December 2019. http://cait.wri.org.

INTENTIONALLY LEFT BLANK

4.8 Hazards and Hazardous Materials

This section describes the existing hazardous materials within the vicinity of the proposed West Campus Upper Plateau Project (Project), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures for implementation of the Project.

In addition to the documents listed in Section 4.8.9, References Cited, the following reports were used in the preparation of this section of the EIR:

- Phase I Environmental Site Assessment Meridian – West Campus Upper Plateau, prepared by Leighton Consulting Inc., October 28, 2021 (Appendix J-1)
- Phase II Environmental Site Assessment Meridian – West Campus Upper Plateau, prepared by Leighton Consulting Inc., January 17, 2022 (Appendix J-2)
- Finding of Suitability to Transfer, Parcels F and K-1, March Air Force Base, September 20, 2000, and Quitclaim Deed for Parcel F and K-1 between the U.S. Air Force and March Joint Powers of Authority, February 28, 2001 (Appendix J-3)
- Wildlife Hazard Review, prepared by Mead & Hunt, July 28, 2022 (Appendix J-4)
- Fire Protection Plan – West Campus Upper Plateau, prepared by Dudek (Appendix Q)
- Federal Aviation Administration - Determinations of No Hazard to Air Navigation for Buildings B and C, April 29, 2022 (FAA 2022a–h).

As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Development Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.8.1 Existing Conditions

Definitions and Background

Hazardous Materials

A hazardous material is defined as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment (California Health and Safety Code section 25501[n]). The term "hazardous materials" refers to both hazardous substances and hazardous wastes. Under federal and state laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute as such or if it is toxic (causes adverse human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases).

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been spent, discarded, discharged, spilled, contaminated, or are being stored until they can be disposed of properly (22 CCR 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific criteria established in sections 66261.20 through 66261.24 of the CCR Title 22. Hazardous substances are regulated by multiple agencies, as described in the Regulatory Setting below, and cleanup requirements of hazardous releases are determined on a case-by-case basis according to the agency (e.g., Department of Toxic Substances Control [DTSC] or State Water Resources Control Board) with lead jurisdiction over a contaminated site.

Potential Receptors/Exposure

The sensitivity of potential receptors in the areas of known or potential hazardous materials contamination is dependent on several factors, the primary factor being the potential pathway for human exposure. Exposure pathways include external exposure, inhalation, and ingestion of contaminated soil, air, water, or food. The magnitude, frequency, and duration of human exposure can cause a variety of health effects, from short-term acute symptoms to long-term chronic effects. Potential health effects from exposure can be evaluated in a health risk assessment. The principal elements of health risk assessments typically include:

- Evaluation of the fate and transport processes for hazardous materials at a given site;
- Identification of potential exposure pathways;
- Identification of potential exposure scenarios;
- Calculation of representative chemical concentrations; and
- Estimation of potential chemical uptake.

Hazardous Building Materials Associated with Demolition

Older buildings and structures can contain building materials that include hazardous components such as lead-based paint (LBP) and asbestos-containing materials (ACMs). The existing structures and bunkers on the Project Site are relatively old, approximately 60 years, therefore the potential exists for the structures to contain hazardous building materials (Appendix J-1).

Among its numerous uses and sources, lead can be found in paint, water pipes, solder in plumbing systems, and in soils around buildings and structures painted with LBP. Old peeling paint can contaminate near surface soil, and

exposure to residual lead can have adverse health effects, especially in children. LBP was phased out in the United States beginning with the passage of the Lead-Based Paint Poisoning Prevention Act in 1971. Prior to the U.S. Environmental Protection Agency (EPA) ban in 1978, LBP was commonly used on interior and exterior surfaces of buildings. Structures built prior to 1978 may have LBP and some paints manufactured after 1978 for industrial or marine uses legally contain more than 0.06% lead. Pathways of exposure to lead can occur through inhalation, ingestion, dermal absorption, or absorption from retained/embedded leaded foreign body. Exposure to lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system, and affects the oxygen carrying capacity of blood. Children are particularly susceptible to potential lead-related health problems because it is easily absorbed into developing systems and organs.

Asbestos, a naturally occurring fibrous material, was used as a fireproofing and insulating agent in building construction before such uses were terminated due to liability concerns in the late 1970s. From 1973 through 1990, several laws were passed banning the manufacture and use of ACM (EPA 2021a). Some materials are still allowed to contain asbestos. The demolition of structures with ACM can result in airborne fibers. Inhalation of the tiny asbestos fibers can lead to lung disease. Structures that predate 1981 and structural materials installed before 1981 are presumed to potentially contain asbestos. Because it was widely used prior to the discovery of its health effects, asbestos can be found in a variety of building materials and components such as insulation, walls and ceilings, floor tiles, and pipe insulation. Friable (easily crumbled) materials are particularly hazardous because inhalation of airborne fibers is the primary mode of asbestos entry into the body. Non-friable asbestos is generally bound to other materials such that it does not become airborne under normal conditions. Non-friable asbestos and encapsulated friable asbestos do not pose substantial health risks. Asbestos exposure is a human respiratory hazard. Asbestos-related health problems include lung cancer and asbestosis. Any activity that involves cutting, grinding, or drilling during building renovation or demolition or relocation of underground utilities could release friable asbestos fibers unless proper precautions are taken. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making friable materials the greatest potential health risk.

Spent fluorescent light tubes commonly contain mercury vapors, the exposure to which can have both long-term (e.g., anxiety, loss of appetite, fatigue, changes in vision or hearing) and/or short-term (e.g., sore throat, shortness of breath, chest pain, headache, vision problems) health effects. In February 2004, regulations took effect in California that classified all fluorescent lamps and tubes as hazardous waste. When these lamps or tubes are broken, mercury is released to the environment and can become airborne. When inhaled, mercury vapors can be absorbed through the lungs and into the bloodstream. Released mercury that is not vaporized can also be washed by rainwater and into waterways. Mercury switches may also be present in some buildings. A mercury switch (also known as a mercury tilt switch) is a switch which opens and closes an electrical circuit through a small amount of liquid mercury.

Polychlorinated biphenyls (PCBs) are organic oils that were formerly used primarily as insulators in many types of electrical equipment such as transformers and capacitors. After PCBs were determined to be carcinogenic in the mid-to-late 1970s, the EPA banned PCB use in most new equipment and began a program to phase out certain existing PCB-containing equipment (EPA 2021b). Fluorescent lighting ballasts manufactured after January 1, 1978, do not contain PCBs and are required to have a label clearly stating that PCBs are not present in the unit. PCBs are highly persistent in the environment, and exposure to PCBs has been demonstrated to cause cancer, as well as a variety of other adverse health effects on the immune system, reproductive system, nervous system, and endocrine system. The primary route of exposure to PCBs in the general population is the consumption of contaminated foods, particularly meat, fish, and poultry. Occupational exposure to PCBs occurs mainly through inhalation and dermal contact routes. According to the Phase I site assessment, the Project site includes pole-mounted electrical transformer banks east of Buildings 2 and 4 (Appendix J-1).

Soil and Groundwater Contamination

The findings of the Phase I Environmental Site Assessment (Phase I) that was conducted for the Project site determined that there were recognized environmental conditions (RECs) at the site (Appendix J-1). REC is a term used within the context of a Phase I and is defined as "(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment." (Appendix J-1). The numerous RECs identified at the Project site triggered recommendations for further investigation at the site including a hazardous building material survey; collection of shallow soil samples at the "U-shaped feature," historical storage/cleared areas, water cooling tower, Building 2, beneath electrical transformers/equipment, and the undocumented granite stockpile; and a geophysical survey in the vicinity of a suspected underground storage tank (UST) and subsurface piping associated with the water cooling tower. The purpose behind these recommendations and conducting a Phase II Environmental Site Assessment was to determine whether the RECs and associated contaminants of concern related to these materials/suspected activities resulted in a past release of hazardous materials or wastes to the subsurface.

USTs are a common source of contamination for a number of reasons. Until the mid-1980s, most USTs were made of single-walled bare steel, which can corrode over time and result in leakage. Faulty installation or maintenance procedures can also lead to UST leakage, as well as to potential releases associated with spills. Recently revised UST regulations have significantly reduced the incidents of leakage and consequential soil and groundwater contamination from newer UST systems. Similarly, spills resulting from poor maintenance or improper installation associated with aboveground storage tanks (ASTs) can result in localized, shallow soil contamination. USTs installed prior to the mid-1980s that have leaked, as well as improperly installed USTs and ASTs that have resulted in fuel spills, can present contamination issues.

In addition, hazardous materials and waste associated with munitions storage and disposal could also be present in subsurface materials, especially within areas that have been used for disposal activities. Military munitions may potentially cause soil, groundwater and surface water contamination from munitions residues (including explosives and heavy metals) and may also present safety concerns around unexploded ordnance. Munitions residues can derive from partially detonated and decomposing ordnance and explosives from training activities, flares, smoke grenades, open burning and open detonation disposal activities, munitions burial sites, weapons testing or other military activities. The Project site includes areas that were used as part of the March Air Force Base operations for disposal of hazardous substances in undetermined quantities in areas that were then known as Installation Restoration Program (IRP) Sites, 3, 25, and 40. All of these IRP sites were located within the proposed Conservation Easement and outside of the Development Area. Remediation activities were completed at all three of these IRP Sites. Following completion of the remediation, the Air Force determined that all remedial actions to protect human health and the environment were taken and regulatory concurrence was provided by DTSC, Santa Ana Regional Water Quality Control Board (RWQCB), and the EPA as documented in the Finding of Suitability for Transfer (Appendix J-3).

Phase II Findings Project Site

Based on the results of the Phase I discussed above, a Phase II investigation was conducted on the Project site in order to further assess the potential presence of the RECs in subsurface materials and building materials that includes the Development Area and isolated areas of the Conservation Easement. The Phase II included a hazardous materials survey completed at 7 buildings, 16 ordnance bunkers, the non-operational water tower, one water cooling

tower, and other on-site features; 17 exploratory trenches in the U-shaped feature and other historical areas of concern; a geophysical survey and 5 trenches around the water cooling tower; 5 exploratory trenches at two electrical substation areas that had multiple former elevated electrical transformers and two trenches near pad-mounted transformers; 3 soil samples collected for analysis from the decomposed granite stockpile; and an inventory of wooden poles and preparation of a sampling plan.

Soil samples were collected from the trenches that extended approximately 5 feet below ground surface and some soil samples were also collected with hollow stem auger borings. The samples were analyzed for total petroleum hydrocarbons (TPH), semi-volatile organic compounds (SVOCs), organochlorine pesticides (OCPs), chlorinated herbicides (CHs) polychlorinated biphenyls (PCBs), and Title 22 metals. The hazardous building survey evaluated building materials for the presence of asbestos and lead-based paint. The results were as follows:

- **TPH** – No TPH was reported in 40 of 49 soil samples and the 9 remaining samples showing hydrocarbons in the diesel range of petroleum with detections below regulatory screening levels. A total of 4 samples also reported oil range TPH that were also below screening levels.
- **SVOCs** – 26 of 29 soil samples reported no detections of SVOCs. Minor concentrations of 10 SVOCs (acenaphthylene, benzo(a)anthracene, benzo (b) fluoranthene, benzo (g,h,i) perylene, butylbenzylphthalate, chrysene, fluoranthene, fluorine, phenanthrene and pyrene) were reported in the three remaining samples, all at concentrations below existing regulatory screening levels for soil in a commercial/industrial use scenario.
- **OCPs** (pesticides) – No detections in 17 of 20 samples analyzed and the detections in the three remaining samples were relatively minor at levels below regulatory screening levels.
- **PCBs –** No detections in 38 of 39 samples with the one detection well below the regulatory screening level.
- **CHs** (herbicides) – No detections in the 3 samples analyzed.
- **Asbestos –** No detections in the 4 soil samples analyzed (see below for results of asbestos in building materials).
- **Title 22 Metals –** Of the 48 samples analyzed, all detected metals were below regulatory screening levels except for arsenic. Although arsenic was above the regulatory screening levels, it was below what DTSC considers to be a background level for the region.

In addition, the geophysical survey noted an anomaly, but subsequent excavation did not find any evidence of an underground storage tank, only an area of large cobbles (Appendix J-2).

The hazardous materials survey which included visual inspections, testing for lead-based paint, bulk sampling for asbestos, and PCBs found the following:

- ACMs are present in numerous structures on the Project site.
- Testing of various painted, coated or glazed finishes indicates that there are lead-based paints at numerous locations on the Project site.
- Wipe samples collected within Buildings 2, 3, 4 and 5 indicate no identified PCBs.
- Metals were detected in all wipe samples collected and analyzed from Buildings 2, 3 and 5. Samples from Buildings 2 and 5 specifically indicated lead concentrations in excess of 40 micrograms per square foot, presenting a lead hazard, as defined in 8 CCR 1532.1 and 22 CCR 35000-36100.
- There are 42 pole-mounted transformers and a black electrical wrap present on power feeds coming down off of pole-mounted transformers and high power lines, which may be wrapped with a PCB-containing product called Askerals. There are also 29 small capacitors on the ground inside and outside Building 5, also a PCB concern.

- Universal Waste Rule items such as batteries, pesticides, mercury-containing equipment, lamps and aerosol cans were identified throughout the Site.
- Potential treated wood wastes were identified at the site including: 1) wood power poles, 2) wood perimeter fence lighting poles, 3) wood security lighting and camera poles, 4) large wood communication poles, and 5) treated wood utilized at power substations. Approximately 376 total wooden poles are present at the Project site.

Airports

The nearest airport to the Project site is the March Air Reserve Base/Inland Port Airport which is located just east of Interstate (I) 215 from the Project site. The primary runway for the airport (Runway 14-32) is located approximately 4,500 feet (0.85 miles) from the easternmost boundary of the Project site (Mead & Hunt 2014). According to the Land Use Compatibility Plan (ALUCP) for the Airport, the Project site is located within the C1 Primary Approach/Departure Zone and C2 Compatibility Zone. The ALUCP is primarily based upon the U.S. Air Force's Air Installation Compatibility Use Zones Study for March Air Reserve Base (ARB), dated August 2005. The ALUCP provides noise and safety policies governing development of compatible future land uses in areas within the airport influence area.

Wildfire

While wildfire risk is predominantly associated with wildland urban interface (WUI) areas, significant wildfires can also occur in heavily populated areas. The WUI is a general term that applies to development adjacent to landscapes that support wildland fire. The WUI, however, generally defines development areas that are located in the foothills and mountainous areas of California which does not characterize the Project site. Regardless, as presented in Figures 2a and 2b in Appendix Q, Riverside County Fire Hazard Severity Zones Map and CAL FIRE Fire Hazard Severity Zones Map, the Project Site was previously, however is no longer currently, located in an area designated by the Riverside County's General Plan Safety Element and CAL FIRE as a High Fire Hazard Severity Zone (HFHSZ) (CAL FIRE 2021). For more details about this change in designation, see Section 4.18, Wildfire.

4.8.2 Relevant Plans, Policies, and Ordinances

Federal

Department of Defense

The Department of Defense has developed the Air Installations Compatibility Use Zones (AICUZ) program to ensure that development is compatible with aviation operations in areas on and adjacent to military airfields. The AICUZ land use recommendations are based on land use compatibility with exposure to aircraft noise, and safety considerations. Recommended compatible land uses are derived from data on noise contours (noise zones) and safety zones (clear zones and accident potential zones).

The 2018 March ARB AICUZ Study is an update of the AICUZ study dated 2005. The update is a reevaluation of aircraft noise and accident potential related to Air Force flying operations and is designed to aid in the development of local planning mechanisms which will protect the public safety and health, as well as preserve the operational capabilities of March ARB. The update also provides noise contours based upon the Community Noise Equivalent Level (CNEL) metric and utilizes a planning noise contour. The Project site is located within the 60 decibel (dB) and 70 dB Noise Contour Level, (Figure 4-2 of March ARB 2018). Industrial, commercial, public/quasi-public, and open

space land uses are considered compatible for noise contours less than 80 dB CNEL (parks are considered appropriate within 60-70 dB) (March ARB 2018).

Federal Toxic Substances Control Act and Resource Conservation and Recovery Act

The federal Toxic Substances Control Act of 1976 (15 USC 2601 et seq.) and the Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC 6901 et seq.) established a program administered by the EPA for regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (PL 98-616), which affirmed and extended the "cradle-to-grave" system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous and Solid Waste Act Amendments of 1984. Under the authority of RCRA, the regulatory framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste, is found in Title 40 CFR, Parts 260–299.

Hazardous Materials Transportation Act

The U.S. Department of Transportation regulates hazardous materials transportation under Title 49 of the United States Code. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. These agencies also administer permitting for hazardous materials transportation.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 USC 9601 et seq.), commonly known as "Superfund," was enacted by Congress on December 11, 1980. CERCLA provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enables the revision of the National Contingency Plan, which provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants.

Oil Pollution Prevention

Oil Pollution Prevention regulations (40 CFR 112) require the preparation of a spill prevention, control, and countermeasure plan if oil is stored in excess of 1,320 gallons in aboveground storage (or if there is a buried capacity of 42,000 gallons). Spill prevention, control, and countermeasure (SPCC) regulations place restrictions on the management of petroleum materials and, therefore, have some bearing on hazardous materials management.

National Emission Standard for Asbestos

The National Emission Standards for Hazardous Air Pollutants (40 CFR 63) names ACM as a hazardous air pollutant. ACM use, removal, and disposal are regulated by the EPA under this law. In addition, this regulation requires notification of friable ACM removal prior to a proposed demolition project.

Superfund, Emergency Planning, and Community Right-to-Know Act

The Emergency Planning and Community Right to Know Act (40 CFR 350–372), establish four types of reporting obligations for facilities storing or managing specified chemicals: emergency planning, emergency release notification, hazardous chemical storage reporting requirements, and toxic chemical release inventory. The EPA maintains a database, termed the Toxic Release Inventory, which includes information on reportable releases to the environment.

Regional Screening Levels

The EPA provides regional screening levels (RSLs) for chemical contaminants to provide comparison values for residential and commercial/industrial exposures to soil, air, and tap water (drinking water). RSLs are a recommended, but not mandatory, approach to risk assessment for response actions at CERCLA sites. RSLs are available on the EPA's website and provide a screening level calculation tool to assist risk assessors, remediation project managers, and others involved with risk assessment and decision making. RSLs are also used when a site is initially investigated to determine if potentially significant levels of contamination are present to warrant further investigation. In California, the DTSC Human and Ecological Response Office (HERO) incorporated the EPA RSLs into the HERO human health risk assessment. HERO created Human Health Risk Assessment Note 3, which incorporates HERO recommendations and DTSC-modified screening levels based on the EPA RSLs. The DTSC-modified screening level should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

U.S. Department of Labor, Occupational Safety and Health Administration

Title 29 CFR, Part 1926 et seq. – Safety and Health Regulations for Construction

These standards require employee training; personal protective equipment; safety equipment; and written procedures, programs, and plans for ensuring worker safety when working with hazardous materials or in hazardous work environments during construction activities, including renovations and demolition projects and the handling, storage, and use of explosives. These standards also provide rules for the removal and disposal of asbestos, lead, LBP, and other lead materials. Although intended primarily to protect worker health and safety, these requirements also guide general facility safety. These regulations also require the preparation of an engineering survey prior to demolition.

Title 29 CFR, Part 1910 et seq. – Occupational Safety and Health Standards

Under these regulations, facilities that use, store, manufacture, handle, process, or move hazardous materials are required to conduct employee safety training, inventory safety equipment relevant to potential hazards, have knowledge on safety equipment use, prepare an illness prevention program, provide hazardous substance exposure warnings, prepare an emergency response plan, and prepare a fire prevention plan.

U.S. Department of Transportation

Title 49 CFR, Part 172, Subpart C – Shipping Papers

The U.S. Department of Transportation established standards for the transport of hazardous materials and hazardous wastes. The standards include requirements for labeling, packaging, and shipping hazardous materials and hazardous wastes, as well as training requirements for personnel completing shipping papers and manifests.

State

California Health and Safety Code

In California, the handling and storage of hazardous materials is regulated by Division 20, Chapter 6.95, of the California Health and Safety Code (Section 25500 et seq.). Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a hazardous materials business plan. Hazardous materials business plans contain basic information about the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.

Chapter 6.95 of the California Health and Safety Code establishes minimum statewide standards for Hazardous Materials Business Plans. Each business shall prepare a Hazardous Materials Business Plan (HMBP) if that business uses, handles, or 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 (19 CCR 2651)

In addition, in the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by California code, facilities are also required to prepare a risk management plan consistent with the California Accidental Release Prevention (CalARP) Program (19 CCR 2735.1 et seq.). The risk management plan provides information about 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

California Office of Emergency Services

To protect the public health and safety and the environment, the California Office of Emergency Services is responsible for establishing and managing statewide standards for business and area plans relating to the handling and release or threatened release of hazardous materials. Basic information on hazardous materials handled, used, stored, or disposed of (including location, type, quantity, and the health risks) needs to be available to firefighters and public safety officers. Regulatory agencies are included in business plans to prevent or mitigate damage to the health and safety of persons and the environment from the release or threatened release of these materials into the workplace and environment. These regulations are covered under Chapter 6.95 of Division 20 of the California Health and Safety Code Article 1–Business and Area Plans (Sections 25500 to 25519) and Article 2–Hazardous Materials Management (Sections 25531 to 25543.3).

California Occupational Safety and Health Administration Under the California Occupational Safety and Health Act of 1973 (CCR Title 8), the California Occupational Safety and Health Administration (CalOSHA) is responsible for ensuring safe and healthful working conditions for California workers. CalOSHA assumes primary responsibility for developing and enforcing workplace safety regulations in Title 8 of the California Code of Regulations. CalOSHA hazardous substances regulations include requirements for safety training, availability of safety equipment, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. CalOSHA also

enforces hazard communication program regulations, which contain training and information requirements, including procedures for identifying and labeling hazardous substances. The hazard communication program also requires that material safety data sheets be available to employees and that employee information and training programs be documented.

In CCR, Title 8, Division 1, Chapter 4, Subchapter 4, Construction Safety Orders, construction safety orders are listed and include rules for demolition, excavation, explosives work, working around fumes and vapors, pile driving, vehicle and traffic control, crane operation, scaffolding, fall protection, and fire protection and prevention, among others.

Asbestos

CalOSHA Asbestos and Carcinogen Unit enforces asbestos standards in construction, shipyards, and general industry. This includes identification and removal requirements of asbestos in buildings, as well as health and safety requirements of employees performing work under the Asbestos-In-Construction regulations (8 CCR 1529). Only a CalOSHA-Certified Asbestos Consultant can provide asbestos consulting (as defined by Business and Professions Code Sections 7180–7189.7 and triggered by the same size and concentration triggers as for registered contractors). These services include building inspection, abatement project design, contract administration, supervision of site surveillance technicians, sample collection, preparation of asbestos management plans, and clearance air monitoring.

Lead-Based Paint

The California Department of Public Health enforces lead laws and regulations related to the prevention of lead poisoning in children, prevention of lead poisoning in occupational workers, accreditation and training for construction-related activities, lead exposure screening and reporting, disclosures, and limitations on the amount of lead found in products. Accredited lead specialists are required to find and abate lead hazards in construction projects and to perform lead-related construction work in an effective and safe manner. Lead protections in construction activities are described in 8 CCR Section 1532.1.

Hearing Conservation and Personal Protective Equipment

A hearing conservation program is required to be administered by employers for employees that are exposed to noise above an 8-hour time-weighted average (TWA) of 85 decibels (dB) (8 CCR Section 5097). Additionally, employers will make hearing protectors available to all employees exposed to the 8-hour TWA of 85 dB or greater at no cost to the employee.

California Hazardous Waste Control Act

The California 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 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. Although the Hazardous Waste Control Act is generally more stringent than RCRA, until the EPA approves the California hazardous waste control program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both the state and federal laws apply in California, and hazardous waste reporting and regulation are enforced through California DTSC. 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 treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

According to 22 CCR 66261.1 et seq., substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, or contaminated, or that is being stored prior to proper disposal.

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 (the level depends 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 (e.g., 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.

California State Aeronautics Act

The purpose of the California State Aeronautics Act, Public Utilities Code (PUC) Section 21001 et seq., administered by the California Department of Transportation, Division of Aeronautics, is "to protect the public interest in aeronautics and aeronautical progress." Under State Aeronautics Act, Airport Land Use Commissions are required, per PUC Sections 21670-21679.5, and must create Airport Land Use Compatibility Plans, pursuant to PUC Sections 21674.5 and 21674.7. Consistent with these provisions, the Riverside County Airport Land Use Commission has created an Airport Land Use Compatibility Plan for each airport under its jurisdiction. The March ARB/Inland Port ALUCP is discussed in greater detail under applicable local regulations.

California Accidental Release Prevention Program

Similar to the Community Right to Know Act, the California Accidental Release Prevention (CalARP) Program (19 CCR 2735.1 et seq.) regulates facilities that use or store regulated substances, such as toxic or flammable chemicals, in quantities that exceed established thresholds. The overall purpose of the CalARP Program is to prevent accidental releases of regulated substances and reduce the severity of releases that may occur. The CalARP Program meets the requirements of the EPA Risk Management Program, which was established pursuant to the Clean Air Act Amendments.

California Unified Program for Management of Hazardous Waste and Materials

Under the California Environmental Protection Agency (CalEPA), DTSC and Enforcement and Emergency Response Program administer the technical implementation of California's Unified Program, which consolidates the administration, permit, inspection, and enforcement activities of several environmental and emergency management programs at the local level. Certified Unified Program Agencies (CUPAs) implement the hazardous

waste and materials standards. This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994. The programs that make up the Unified Program are:

- Aboveground Petroleum Storage Act (APSA) Program
- Area Plans for Hazardous Materials Emergencies
- California Accidental Release Prevention (CalARP) Program
- Hazardous Materials Release Response Plans and Inventories (Hazardous Materials Business Plans, or HMBPs)
- Hazardous Material Management Plan (HMMP) and Hazardous Material Inventory Statements (HMIS)
- Hazardous Waste Generator and On-site Hazardous Waste Treatment (Tiered Permitting) Program
- Underground Storage Tank Program

The CUPA for the Project site is the Riverside County Department of Environmental Health.

Human Health Risk Assessment Note 3 – DTSC-Modified Screening Levels

Human Health Risk Assessment Note 3 presents recommended screening levels (derived from the EPA RSLs using DTSC-modified exposure and toxicity factors) for constituents in soil, tap water, and ambient air. The DTSC-modified screening level should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

Environmental Screening Levels

ESLs provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater. They are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. The ESLs are prepared by the staff of the San Francisco Bay RWQCB. While ESLs are not intended to establish policy or regulation, they can be used as a conservative screening level for sites with contamination. Other agencies in California may elect to use the ESLs; in general, the ESLs could be used at any site in the State of California, provided all stakeholders agree (SFBRWQCB 2019). In Dudek's recent experience, regulatory agencies throughout the state are using ESLs more frequently as regulatory cleanup levels. The ESLs are not generally used at sites where the contamination is solely related to a Leaking Underground Storage Tank (LUST); those sites are instead subject to the Low-Threat Underground Storage Tank Closure Policy.

California Department of Transportation/California Highway Patrol

Under Title 13, California Code of Regulations, Division 2, Chapter 6, California regulates the transportation of hazardous waste originating or passing through the state. The California Highway Patrol (CHP) and the California Department of Transportation have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakages and spills of material in transit and provides detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of CHP's responsibility. CHP conducts regular inspections of licensed transporters to ensure regulatory compliance. The California Department of Transportation has emergency chemical spill identification teams at locations throughout the state. Hazardous waste must be regularly removed from generating sites by licensed hazardous waste transporters. Transported materials must be accompanied by hazardous waste manifests.

California Code of Regulations

Most state and federal regulations and requirements that apply to generators of hazardous waste are identified in California Code of Regulations (CCR), Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous waste generators, transporters, treatment, storage, and disposal facilities. As California is a fully authorized state pursuant to RCRA, most RCRA regulations, such as those contained in 40 CFR Part 260, et seq., have been duplicated and integrated into Title 22. However, since the California DTSC regulates hazardous waste more stringently than U.S. EPA, the integration of state and federal hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as RCRA. As with the California Health and Safety Code, Title 22 also regulates a wider range of waste types and waste management activities than do RCRA regulations in 40 CFR Part 260. To aid the regulated community, California compiled the hazardous materials, waste, and toxics-related regulations contained in CCR Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27, into one consolidated CCR Title 26 "Toxics." However, the California hazardous waste regulations are still commonly referred to as Title 22.

Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under CEQA

In October 2022, the California Office of the Attorney General issued guidance (AG Guidance) outlining best practices for analyzing and mitigating wildfire impacts of development projects under the California Environmental Quality Act (CEQA).(California Office of the Attorney General 2022) The AG Guidance is intended to help local governments' evaluation and approval considerations for development projects in fire-prone areas, and to help project design in a way that minimizes wildfire ignition and incorporates emergency access and evacuation measures. The AG Guidance does not impose additional legal requirements on local governments, nor does it alter any applicable laws or regulations.

Local

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) regulates air quality in Riverside County. SCAQMD Rule 1403 governs work practice requirements for asbestos in all renovation and demolition activities, including subsurface piping (transite pipe). The rule includes requirements for asbestos surveying, notifications, ACM removal procedures, schedules, handling and clean-up procedures, and storage, disposal, and landfill requirements for waste materials. All operators are also required to maintain records and use appropriate labels, signs, and markings. Rule 1403 incorporates the federal asbestos requirements found in the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, Subpart M. The EPA has delegated SCAQMD the authority to enforce the federal asbestos NESHAP.

SCAQMD Rule 1166 sets requirements to control the emission of VOCs from excavating, grading, handling, and treating VOC-contaminated soils. Under this rule, soil with has a VOC concentration equal to or greater than 50 parts per million (ppm) is considered "VOC Contaminated Soil" and must be handled in accordance with Rule 1166. Requirements under this rule include a VOC Contaminated Soil Management Plan, notifications, recordkeeping, monitoring, and handling procedures.

SCAQMD Rule 1466 sets requirements for control of particulate emissions from soils with toxic air contaminants. The provisions in Rule 1466 include ambient PM_{10} monitoring, dust control measures, notification, signage, and recordkeeping requirements.

Riverside County Department of Environmental Health

Riverside County Department of Environmental Health (DEH) is responsible for oversight of seven hazardous materials programs in the County: Aboveground Petroleum Storage Tanks, Accidental Release Prevention Program, HMBPs, Emergency Response, Underground Storage Tanks (USTs), Waste Generator, and Waste Treatment Programs. Riverside County DEH is duly authorized to conduct permitting, inspections, and enforcement actions associated with these state programs.

Riverside County DEH is also responsible for plan review prior to construction of certain projects. While Riverside County DEH only requires plan review for UST installation at new facilities, some cities and local jurisdictions require permit clearance from Riverside County DEH, meaning proof that plans are not required, prior to issuing permits and licenses. March Joint Powers Authority (JPA) permit applications require Riverside County review for new construction; however, all construction plans and permit applications are handled by March JPA's contract building department. Additionally, Riverside County DEH works with local planning departments during commercial property development to evaluate items such as on-site wastewater treatment, USTs, APSA, environmental assessment reviews, and hazardous materials disclosure.

March ARB AICUZ

In February 2018, March ARB released an update of the March ARB AICUZ Study dated 2005. This update was initiated because of the beddown[1] of new aircraft, operational changes and the introduction of new flight tracks. It is a reevaluation of aircraft noise and accident potential related to Air Force flying operations and is designed to aid in the development of local planning mechanisms which will protect the public safety and health, as well as preserve the operational capabilities of March ARB. The AICUZ program is a means to protect public health, safety, and general welfare in areas surrounding the base while seeking development compatible with the defense flying mission. The AICUZ for March ARB outlines the location of runway clear zones, aircraft accident potential zones, and noise contours and provides recommendations for development compatible with military flight operations.

March Air Reserve Base/Inland Port ALUCP

The March ARB/IP ALUCP was prepared for and adopted by the Riverside County ALUC on November 13, 2014. The purpose of the March ARB/Inland Port ALUCP is to promote compatibility between the March ARB/Inland Port and the land uses that surround the joint-use airport, to the extent such areas are not already devoted to incompatible uses. The March ARB/Inland Port ALUCP regulates future development of new residential dwellings, commercial structures, and other noise- or risk-sensitive uses within the Airport Influence Area based on factors enumerated in the ALUCP, including but not limited to noise, overflight, safety, and airspace protection. The Riverside County ALUCP Policy Document, which covers countywide policies, includes the policies for determining the land use compatibility of the Project since it is located within 2 miles of an airport runway. Policy 4.1.5, Noise Exposure for Other Land Uses of the Riverside County ALUCP requires that land uses demonstrate compatibility with the acceptable noise levels as shown on Figure 4.8-1 (also depicted in Figure 4.11-1 of Section 4.11, Noise, of this document).

March JPA General Plan

The Land Use Element and Safety/Risk Management Element of the March JPA General Plan (March JPA 1999) include policies related to safety risks for people residing or working in the Project area that will be applied to the

[1] Beddown refers to the location of equipment or personnel at a certain location for more than one year.

Project. The following policies from the March JPA General Plan apply to the Project. Consistency with these policies is discussed in Section 4.10, Land Use and Planning.

Land Use Element

Policy 1.9: Plan for compatible land uses within the aircraft noise impact contours depicted in the Air Installation AICUZ Report for the airfield use.

Policy 6.2: Plan for compatible land uses within the Clear Zone, Accident Potential Zones I and II, as depicted in the AICUZ Report for the airfield use.

Policy 6.4: Ensure that plans and development do not conflict with the long-term needs of the Air Force Reserve in terms of encroachment, noise, accident zone, constraints, etc.

Policy 7.2: Ensure development and use of property within the vicinity of the airfield complies with appropriate building standards and codes, including height restrictions, restrictions on use, setbacks, population densities, insulation and materials, as contained within an approved Comprehensive Land Use Plan and appropriate AICUZ.

Safety and Risk Management Element

Goal 5: Reduce the potential for hazardous material exposure or contamination in the Planning Area

Policy 5.1: Comply with the enforcement of disclosure laws that require all users, producers, and transporters of hazardous materials and wastes to clearly identify such materials at the site, and to notify the appropriate County, State and/or Federal agencies in the event of a violation.

Policy 5.3: Ensure the storage, use and transportation of any hazardous material complies with the standards set forth within the errata sheets published for each substance.

4.8.3 Project Design Features

Pursuant to the wildlife hazard review prepared for the Project, also known as a Bird/Wildlife Aircraft Strike Hazard (BASH) study, the following Project Design Features (PDFs) are incorporated into the Specific Plan to be consistent with Federal Aviation Administration guidance, the 2018 Air Installation Compatible Use Zone for March ARB (AICUZ), and the Riverside County ALUCP with regard to wildlife attractants and hazards to flight operations.

PDF-HAZ-1: As required by the Riverside County Airport Land Use Compatibility Plan (ALUCP), as detailed plans become available, they will be reviewed for consistency with the Riverside County ALUCP. In addition, the following conditions as a result of ALUC Development Review (File No. ZAP1515MA22, Appendix L) shall apply:

- Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.

- A "Notice of Airport in Vicinity" shall be provided to all prospective purchasers and occupants of the property and be recorded as a deed notice. A copy of this notice is attached to the conditions for ALUC Development Review (File No. ZAP1515MA22).
- The Project has been conditioned to utilized underground detention systems, which shall not contain surface water or attract wildlife. Any proposed stormwater basins or facilities shall be designed and maintained to provide for a maximum 48-hour detention period following the design storm and remain totally dry between rainfalls. Vegetation in and around the basins that would provide food or cover for birds would be incompatible with airport operations and shall not be utilized in Project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the basin(s) shall not include trees or shrubs that produce seeds, fruits, or berries.

  Landscaping in the detention basin, if not rip-rap, should be in accordance with the guidance provided in ALUC "LANDSCAPING NEAR AIRPORTS" brochure, and the "AIRPORTS, WILDLIFE AND STORMWATER MANAGEMENT" brochure available at RCALUC.ORG which list acceptable plants from Riverside County Landscaping Guide or other alternative landscaping as may be recommended by a qualified wildlife hazard biologist.

  A notice sign shall be permanently affixed to the stormwater basin with the following language: "There is an airport nearby. This stormwater basin is designed to hold stormwater for only 48 hours and not attract birds. Proper maintenance is necessary to avoid bird strikes". The sign will also include the name, telephone number or other contact information of the person or entity responsible to monitor the stormwater basin.
- Temporary construction equipment used during actual construction of the structure(s) shall not exceed the prescribed heights as identified in the aeronautical studies, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.

PDF-HAZ-2 Stormwater management facilities will be designed such that any modifications to open channels or native flow lines do not support potentially hazardous wildlife through the incorporation of vegetation that could provide food, shelter, or nesting habitat for wildlife. Stormwater management facilities will also be consistent with Riverside County ALUCP Condition 4 related to stormwater management facilities and detention basins (see also PDF-HAZ-1).

PDF-HAZ-3 Solid waste that is stored on site for recycling and disposal will be contained in covered receptacles that remain closed at all times.

PDF-HAZ-4 Grading plan standards related to potential ditches, terrace drains, or other minor swales will require that seed mixes used for soil stabilizations are reviewed by a QAWB and revised as necessary to exclude the use of grains or other constituents that may attract potentially hazardous wildlife.

4.8.4 Thresholds of Significance

The significance criteria used to evaluate the Project impacts related to hazards and hazardous materials are based on March JPA's 2022 CEQA Guidelines. According to March JPA's 2022 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 result, would it create a significant hazard to the public or the environment.
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
h) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

According to the Initial Study prepared for the Project (Appendix A), the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school given that no schools are located within a 0.25-mile radius of the Development Area, resulting in no impact. However, it has been determined that the Grove Community Church, which is located near the southwest corner of the Project site, includes a preschool which is located within a quarter mile of the Project site. As such, the analysis below includes an evaluation of whether or not the proposed Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Otherwise, the Project would not be located on a site that is included on a list of hazardous material sites, resulting in no impact (note that a Phase II Environmental Site Assessment was conducted at the site and is discussed in the context of significance criterion a) – Impact HAZ-1). Furthermore, it was determined within the Initial Study that the Project would result in a less-than-significant impact related to impairing the implementation of, or physically interfering with, an adopted emergency response plan or emergency evacuation plan. Accordingly, these issues are not analyzed in this section of the EIR. For details regarding these thresholds, please refer to Chapter 5, Effects Found Not to be Significant and the Initial Study included as Appendix A. For the purposes of this analysis, a significant hazard and hazardous materials impact would occur if the Project would:

HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

HAZ-2: 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.

HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

HAZ-4: 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.

HAZ-5: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

4.8.5 Impacts Analysis

Threshold HAZ-1. ***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

Specific Plan Area Campus Development

Construction

Project-related construction activities would include demolition and removal of existing buildings and structures within the Campus Development Area and use of hazardous materials during construction of new buildings, structures, and other features of the proposed Upper Plateau Campus. The potential for exposure of the public or the environment to hazardous materials during these construction activities is addressed below.

Exposure to Hazards in Existing Buildings

The proposed Project would include demolition of the existing buildings, 14 of the former ordnance bunkers, the non-operational water tower, cooling tower, and appurtenances. Some of these structures are considered to be at least 60 years old and, as a result, could contain hazardous building materials. Exposure to hazardous building materials during demolition, including ACMs, LBP, or PCBs, mercury and other hazardous materials in structures would only occur during demolition activities, but could result in adverse health effects if not managed appropriately as required by existing laws and regulations. Once the structures have been removed, there would be no further exposure during operation of the proposed Project.

As described under Section 4.8.2, Relevant Plans, Policies, and Ordinances, existing federal, state, and local regulations require demolition or renovation activities that may disturb or require the removal of materials that consist of, contain, or are coated with ACM, LBP, PCBs, mercury, and other hazardous materials to be inspected and/or tested for the presence of hazardous materials. Further, all hazardous materials must be managed and disposed of in accordance with laws and regulations described in Section 4.8.2 and further described below.

The identification, removal, and disposal of ACM is regulated under 8 CCR 1529 and 5208. The identification, removal and disposal of LBP is regulated under 8 CCR 1532.1. For both ACM and LBP, all work must be conducted by a state-certified professional. A site-specific hazard control plan must be prepared and submitted to the appropriate agency detailing removal methods and specific instructions for providing protective clothing and

equipment for abatement personnel (SCAQMD for asbestos and Cal/OSHA for lead). A state-certified LBP and an asbestos removal contractor would be retained to conduct the appropriate abatement measures as required by the plan. Wastes from abatement and demolition activities would be disposed of at a landfill(s) licensed to accept such waste. Once all abatement measures have been implemented, the contractor would conduct a clearance examination and provide written documentation to the March JPA that testing and abatement have been completed in accordance with all federal, state, and local laws and regulations.

In the case of PCBs, the identification, removal, and disposal are regulated by the EPA under the Toxic Substances Control Act (TSCA) (15 USC 2601 et seq.) and California regulations (22 CCR 66263.44). Electrical transformers and older fluorescent light ballasts not previously tested and verified to not contain PCBs must be tested. PCBs were not detected above action levels, however the Phase II investigation noted that there are 42 pole-mounted transformers and a black electrical wrap present on power feeds coming down off of pole-mounted transformers and high power lines, which may be wrapped with a PCB-containing product called Askerals (Appendix J-2). There are also 29 small capacitors on the ground inside and outside Building 5, that were considered to be a PCB concern (Appendix J-2). In accordance with TSCA and 22 CCR 66263.44, the materials, if confirmed to contain PCBs, must be disposed of at a licensed facility permitted to accept the materials. Phase II report findings could not make conclusive determinations on the presence of PCBs related to the 42 pole-mounted transformers and the black electrical wrap that may include a PCB-containing product called Askerals. However, a subsequent Hazardous Materials Survey was conducted at the site to provide a limited evaluation of the potential presence of PCBs and treated wood waste (Leighton Consulting Inc. 2022). This report determined that no PCBs were identified within the bulk samples collected of black electrical feed wire wrap and only one of three samples collected of dielectric fluid in pole-mounted transformers had a detection of PCBs which at 1.5 milligrams per kilogram was well below the regulatory standard of 50 mg/kg. The findings of the investigation for treated wood waste determined that the wood poles located throughout the facility were found to contain chemical indications of being treated wood waste which requires appropriate handling and disposal measures. Therefore, because of the potential for discovery of PCBs during construction and the presence of treated wood waste on site, this impact is considered potentially significant. **Mitigation Measure (MM) HAZ-1,** as outlined in Section 4.8.6, would require a contingency for further sampling and evaluation to confirm the presence or absence of PCBs, if suspected on site, and implementation of appropriate handling and disposal of treated wood waste. Upon completion of abatement measures, if applicable, the contractor would provide written documentation to the March JPA that any testing and abatement have been completed in accordance with all federal, state, and local laws and regulations.

In the case of mercury in fluorescent light tubes and switches, the identification, removal, and disposal are regulated under 22 CCR 67426.1 – 67428.1 and 66261.50. Under these regulations, the light tubes must be removed without breakage and disposed of at a licensed facility permitted to accept the materials. Upon completion of abatement measures, if applicable, the contractor would provide written documentation to the March JPA that testing and abatement have been completed in accordance with all federal, state, and local laws and regulations as would be required by implementation of **MM-HAZ-1**.

Existing abatement laws and regulations, combined with enforcement mechanisms by agencies including SCAQMD and Cal/OSHA require compliance with applicable federal, state, and local laws and regulations that would prevent the exposure of individuals and the environment to the hazards during demolition of structures built before newer regulatory requirements were enacted (1978 for lead-based paint and PCBs, 1981 for ACMs, and 2004 for mercury in fluorescent lighting), The proposed Project would involve demolition and removal of structures that could potentially contain hazardous building materials, however pursuant to federal, state, and local regulations, including HBMP programs overseen and enforced by the DEH, the demolition permit process would require appropriate surveying, identification and disposal of any identified hazardous building materials. Considering the limited scope

of the hazardous building materials investigation and potential to discover suspect materials or releases of hazardous materials, this impact is considered potentially significant. **MM-HAZ-1,** as detailed in Section 4.8.6, is required to ensure that all suspect transformers and materials are evaluated for the presence of PCBs. Therefore, exposure to ACMs, LBP and/or other hazardous building materials that would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during Project construction would be **less than significant with mitigation incorporated**.

Exposure to Contaminated Soil or Groundwater

The Specific Plan would include ground disturbing activities during construction that could encounter soils and/or groundwater that has been contaminated from historical activities at the site. The Phase I Environmental Site Assessment conducted for the Specific Plan Area determined that there were a number of Recognized Environmental Conditions (RECs), observations or documentation that points to the potential of a past release of hazardous materials or wastes to the subsurface, at the Specific Plan Area. If not understood and managed appropriately, future visitors or workers at the Project site could be exposed to legacy contaminants through contact with contaminated soils during excavation or other ground disturbing activities. The results of the Phase II investigation concluded that legacy contaminants were generally not found above regulatory screening levels with the exception of arsenic. However, the concentration of arsenic was considered to be below the background level for the region according to DTSC. No further soil sampling was recommended for the Specific Plan Area; however, it was noted that construction activities could still encounter isolated areas with legacy contaminants or underground facilities, buried debris, waste drums, or tanks based on the past uses of the site. If not handled appropriately, this could represent a potentially significant impact. Implementation of **MM-HAZ-1,** as outlined in Section 4.8.6, would ensure that construction activities are observed by a qualified professional that would be able to identify any suspect subsurface materials that may require further evaluation and provide appropriate measures to ensure the safety of workers and the public. As a result, with implementation of **MM-HAZ-1**, exposure to contaminated soil or groundwater during construction would be **less than significant with mitigation incorporated.**

Use of Hazardous Materials During Construction

Construction activities would also likely require the use of limited quantities of hazardous materials such as fuels, oils, and lubricants for construction equipment; paints and thinners; and solvents and cleaners. These hazardous materials are typically packaged in consumer quantities and used in accordance with manufacturer recommendations and would be transported to and from the Project site. The improper handling and transport of hazardous materials could result in adverse health effects to workers or the public.

As discussed in Section 4.8.2, the transport of hazardous materials is regulated by the DOT and Caltrans. Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the exposure of hazardous materials. In addition, businesses that use hazardous materials, including construction companies, are required to prepare and implement Hazardous Materials Business Plans (HMBPs) describing procedures for the handling, transportation, generation, and disposal of hazardous materials. As the Certified Unified Program Agency (CUPA), Riverside County DEH would be responsible for ensuring compliance with these regulations including, but not limited to, the Hazardous Waste Control Act, the Hazardous Waste Generator Program, the Hazardous Materials Release Response Plans and Inventory Program, the California Accidental Release Prevention Program, and the Aboveground Storage Tank Program.

This comprehensive set of federal, state, and local laws and regulations regulate the transportation, management, and disposal of hazardous materials and wastes so as to reduce the potential risks of human exposure. For these

reasons, the potential for construction to result in a significant hazard due to exposure of the public or the environment to hazardous materials or wastes through the routine transport, use, or disposal of hazardous materials would be **less than significant**, and no mitigation is required.

Operation

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The use of hazardous materials would occur as part of the operation of the proposed Upper Plateau Campus. Land uses would include mixed use (retail and business park; no residential), business park, and industrial uses that have varying needs for the use, storage, and disposal of hazardous materials and wastes. Hazardous chemicals common in business park, retail and support settings include paints, lubricants, solvents, cleaning supplies and relatively small quantities of fuels, oils, and other petroleum-based products. Activities such as landscaping, can also become sources of releases of hazardous materials with pesticides and/or herbicides. Industrial land uses can have a wider range of hazardous materials and wastes that could be used as part of operations.

The industrial land uses would be required to prepare and submit a Hazardous Materials Management Plan and HMBP to the Riverside County DEH, as well as comply with any applicable fire code requirements as enforced by the County fire department. Facilities that generate waste would be regulated under the hazardous waste program and classified according to the volume of hazardous waste generated on site. The classification levels have accumulation time limits as well as other requirements for the safe storage, use, and disposal that can be found in CCR Title 22. A HMBP would include safety protocols for all hazardous materials that could be included in operations including storage requirements, employee safety training, and handling requirements. In addition, all hazardous materials handlers are subject to inspection every three years. The Riverside County DEH, as the CUPA, requires all industrial users to follow applicable regulations and guidelines regarding storage and handling of hazardous waste. All hazardous materials are required to be stored and handled according to manufacturer's directions and local, state and federal regulations including the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in CCR Title 22.

Business park and retail hazardous materials use are typically handled and transported in relatively small quantities, and because the health effects associated with them are generally not as serious as industrial uses, operation of these uses at the site would not cause an adverse effect on the environment with respect to the routine transport, use, or disposal of general office or retail hazardous materials. Any business that would store hazardous materials and/or waste at its site would also be required to submit business information and hazardous materials inventory forms contained in a Hazardous Materials Management Plan and HMBP.

The existing regulatory framework requires implementation of an HMBP that provides protocols for workers and includes appropriate storage and handling requirements. With adherence to existing regulatory requirements, the impact of the routine transport, use or disposal of hazardous materials associated with future uses at the Upper Plateau Campus would be a **less-than-significant impact**, and no mitigation is required.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. Park construction would involve more limited hazardous materials use and hazardous waste generation

compared to the Upper Plateau Campus, however the same hazardous materials construction BMPs and adherence to existing regulatory requirements would also apply to the Park construction. However, as above with the Specific Plan Area, construction activities could encounter previously unidentified contamination in isolated areas. For these reasons, the potential for the Park construction to result in a significant hazard due to exposure of the public or the environment to hazardous materials or wastes through the routine transport, use, or disposal of hazardous materials would be potentially significant and reduced to a **less-than-significant impact with implementation of MM-HAZ-1**.

During operation, very limited use of hazardous materials such as pesticides and herbicides could be part of maintenance activities. These uses would also be subject to existing regulatory requirements that would limit the potential for routine transport, use or disposal of hazardous materials associated with Park operation to a **less-than-significant impact,** and no mitigation is required.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Specific Plan include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank. As above for the Campus Development and Park, construction activities associated with the infrastructure improvements could encounter previously unidentified contamination but would otherwise be subject to the same regulatory requirements such that the potential for routine transport, use or disposal of hazardous materials associated with construction of these improvements would result in potentially significant impacts that would be reduced to a **less-than-significant impact with implementation of MM-HAZ-1.**

During operation, very limited use of hazardous materials such as cleaning supplies and solvents could be part of maintenance activities. These uses would also be subject to existing regulatory requirements that would limit the potential for routine transport, use or disposal of hazardous materials associated with operation of the infrastructure improvements to a **less-than-significant impact,** and no mitigation is required.

Conservation Easement

The March JPA and the developer propose to establish a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As noted in 4.8.1 above, the Conservation Easement was the location of former IRP Sites, 3, 25, and 40, and the subject of remediation for identified contamination. Following completion of the remediation, the Air Force determined that all remedial actions to protect human health and the environment were taken and regulatory concurrence was provided by DTSC, Santa Ana Regional Water Quality Control Board (RWQCB), and the EPA as documented in the Finding of Suitability for Transfer (Appendix J-3). Therefore, considering that previously identified contamination has been sufficiently remediated and there would be no physical alteration to the Conservation Easement, there would be **no impact** with respect to the routine transport, use, or disposal of hazardous materials.

Threshold HAZ-2. ***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?***

Specific Plan Area

Campus Development

Construction

As noted above in Threshold HAZ-1, construction activities would require the use of limited quantities of hazardous materials that are part of normal requirements of the construction process, including fuels, oils, and lubricants for construction equipment; paints and thinners; and solvents and cleaners. These materials would be transported to and from the Specific Plan Area for use during construction activities. The improper handling and transport of hazardous materials could result in accidental release of hazardous materials, thereby exposing workers, the public or the environment to hazardous materials.

The transport of hazardous materials is regulated by the DOT and Caltrans. The transport regulations ensure safe transport of the regulated materials by addressing how hazardous materials are labeled, identifying approved transport routes, and include provisions that restrict containment during highway transportation of hazardous materials and wastes. Trucks would connect with the existing and established truck routes via Cactus Avenue and would thus comply with transport regulations.

Construction activities would disturb more than one acre and, thus, would be required to implement requirements of the NPDES General Construction Permit. This permit requires implementation of best management practices (BMPs) that would include measures to address the safe handling of hazardous materials, and in the unlikely event of an inadvertent release, also requires spill response measures to contain any release of hazardous materials. The use of construction BMPs implemented as part of a Storm Water Pollution Prevention Plan (discussed further in Section 4.9, Hydrology and Water Quality) as required by the NPDES General Construction Permit would minimize the potential adverse effects from accidental release of hazardous materials or wastes. These BMPs could include, but are not necessarily limited to, the following:

- Establishment of a dedicated area for fuel storage and refueling activities that includes secondary containment protection measures and spill control supplies;
- Requirements to follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction;
- Avoidance of overtopping construction equipment fuel gas tanks;
- Proper containment and removal of grease and oils during routine maintenance of construction equipment; or
- Proper disposal of discarded containers of fuels and other chemicals.

In general, aside from refueling needs for heavy equipment, the hazardous materials typically used on a construction site would be brought onto the site by the construction contractor, packaged in consumer quantities, and used in accordance with manufacturer recommendations. The overall quantities of these materials on the site at any one time would likely not result in large bulk amounts that, if spilled, could cause significant soil or groundwater contamination. If a spill of hazardous materials on the construction sites were to occur, the spilled materials would

tend to be localized because of the relatively small quantities involved and would be cleaned up in a timely manner in accordance with identified BMPs.

Refueling activities of heavy equipment would be conducted in a dedicated and controlled area with secondary containment and protective barriers to minimize any potential hazards that might occur with an inadvertent release. Given the required protective measures (i.e., BMPs) and the quantities of hazardous materials typically needed for construction projects, including for the Specific Plan Area, the threat of exposure to the public or contamination to soil and/or groundwater from construction-related hazardous materials is considered a **less-than-significant impact**, and no mitigation is required.

Unexploded Ordnance

The Specific Plan Area is part of the former March Air Force Base and was used mostly for ordnance storage within the 16 concrete bunkers built sometime in the 1950s or 1960s. According to the Phase I report, which focused on the proposed Specific Plan Area, the site was only used for the purpose of ordnance and munitions storage and not their disposal (Appendix J-1). However, to the south of the Specific Plan Area, an area known as Site 25, was the designated area for disposal and historically used for open air detonations, burning, and burial of munitions and munitions residue. Site 25 was the subject of a remediation effort in 1997 and was determined by the Air Force that all remedial actions taken were sufficient to protect human health and the environment (Appendix J-3). The determination that all remedial actions to protect human health and the environment was also supported by the March Air Force Base Operable Unit No. 2 Proposed Plan (September 1997), with concurrence letters from the DTSC, RWQCB, and the EPA. As such, considering that the only earthwork activities would occur within the Specific Plan Area where munitions were primarily stored in concrete bunkers and the area where munitions were disposed, detonated, and buried has been remediated to the satisfaction of all overseeing regulatory agencies, the potential for adverse effects related to unidentified unexploded ordnance would be **less than significant,** and no mitigation is required**.**

Operation

Operation of the proposed Upper Plateau Campus facilities would involve the use of varying quantities of hazardous materials. The mixed use/commercial and business park land uses would likely involve relatively small quantities of common hazardous materials, including paints and thinners, cleaning solvents, and fuels, oils, and lubricants. These materials would be typically packaged in consumer quantities, as compared to bulk deliveries for industrial land uses, and used in accordance with manufacturer recommendations. Bulk hazardous materials could be associated with the proposed industrial land uses but these would also be subject to applicable federal and state regulations. All hazardous materials and waste storage, transport, usage, and disposal would be done pursuant to the provisions of programs administered by the Riverside County DEH. Storage of all hazardous materials on site, including fuels, would be required to adhere to facility-specific HMBPs. Chapter 6.95 of Division 20 of the California Health and Safety Code requires the preparation and implementation of facility-specific HMBPs for any business including the proposed industrial land uses, and the HMBPs would identify safe measures to store, handle, and dispose of hazardous materials such that accident and upset conditions are minimized. The HMBPs would also include spill response measures to ensure that in the unlikely event that a release does occur, protocols would be implemented to contain and control any accidental release in a manner that is protective of human health and the environment. Such protocols could include employee training, the location of absorbent materials to contain a release, and notification requirements to ensure that human health and the environment is protected from any exposure. The adequacy of and compliance with the HMBPs would be overseen and enforced by the Riverside County DEH. Because a comprehensive set of enforced laws and regulations govern the transportation and management of hazardous

materials to reduce the potential hazards to the public and environment, this impact for the operation of the Upper Plateau Campus would be **less than significant**, and no mitigation is required.

Park

Construction

Construction of the proposed Park would involve more limited hazardous materials use and hazardous waste generation compared to the Campus Development, however there would still likely be limited quantities of fuels, oils, and other hazardous materials used for the operation of machinery that if not managed appropriately could result in an unauthorized release. However, the same hazardous materials construction BMPs and adherence to existing regulatory requirements, as described above, would also apply to construction of the Park. For these reasons, the potential for upset and accident conditions related to hazardous materials use during Park construction would be **less than significant**, and no mitigation is required.

Operation

During operation, very limited use of hazardous materials such as pesticides and herbicides could be part of maintenance activities. These uses would also be subject to existing regulatory requirements as described above for the Campus Development that would limit the potential for upset and accident conditions of hazardous materials resulting in a **less-than-significant impact,** and no mitigation is required.

Infrastructure Improvements

Construction

As described above for the Campus Development and Park, construction activities associated with the infrastructure improvements would be subject to the same regulatory requirements such that the potential for upset and accident conditions of hazardous materials associated with construction of these improvements would result in a **less-than-significant impact,** and no mitigation is required.

Operation

Once constructed, the infrastructure improvements would not be associated with any substantive quantities of hazardous materials. The substation would require the use of transformer oil but all transformers would be equipped with spill containment areas and spill response supplies in accordance with OSHA requirements. All components would have a comprehensive spill response plan, in accordance with all applicable federal, state, and local regulations. Each enclosed transformer at the substation would include mineral oil, but secondary containment would be provided in accordance with applicable federal, state, and local laws and regulations. The mineral oil contained in each transformer does not normally require replacement, and mineral oil disposal would be in accordance with all applicable federal, state, and local laws and regulations. Therefore, with adherence to all applicable federal, state, and local regulations, the potential for upset and accident conditions of hazardous materials associated with operation of the infrastructure improvements would be **less than significant,** and no mitigation is required.

Conservation Easement

The March JPA and the developer propose to establish a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). No physical alteration to the Conservation Easement is anticipated, and there would be **no impact** with respect to the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Threshold HAZ-3. ***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?***

Specific Plan Area

Campus Development

The existing Grove Community Church, located at 19900 Grove Community Drive and adjacent to the proposed extension of Barton Street, operates a preschool at its location which is housed in the southernmost portion of the Grove Community facility and south of the sanctuary. The preschool building, which is self-contained and accessed from the south side, is just over a quarter mile from the nearest proposed industrial use, but approximately 1100 feet southwest of the proposed mixed use land uses of the Campus Development. As discussed in Threshold HAZ-1 above, the proposed mixed-use developments would be required to prepare and submit a Hazardous Materials Management Plan and HMBP to the Riverside County DEH, as well as comply with any applicable fire code requirements as enforced by the County fire department to minimize the potential for any emissions or releases of hazardous materials. A HMBP would include safety protocols for all hazardous materials that could be included in operations including storage requirements, employee safety training, and handling requirements. The Riverside County DEH, as the CUPA, requires all entities that handle hazardous materials to follow applicable regulations and guidelines regarding storage and handling of hazardous waste as well as response to any inadvertent releases. Additionally, no traffic, including trucks, from the Campus Development will have access to Barton Street. All truck routes lead east and north from the Campus Development, in the opposite direction of the Grove Community Church. Nonetheless, even with adherence to these existing regulatory requirements, potential hazardous materials handled at these proposed mixed use developments could result in potentially significant impacts to the preschool at the Grove Community Church. As such, **MM-HAZ-2** prohibits facilities located within one-quarter miles of the existing school from storing, handling, or using toxic or highly toxic gases at quantities that exceed threshold levels established by California Health and Safety Code 25532. Therefore, impacts would be reduced to a **less-than-significant impact with implementation of MM-HAZ-2.**

Park

For the proposed Park land uses, there would be very limited use of hazardous materials but could include limited use of pesticides and herbicides as part of maintenance activities. These hazardous materials uses would also be subject to existing regulatory requirements that would limit the potential for exposure to those in the immediate vicinity and more limited for the community outside of the Park operation. Therefore, emissions of hazardous materials to schools within a quarter mile of the proposed Park area would be considered **less-than-significant impact,** and no mitigation is required.

Infrastructure Improvements

The proposed infrastructure improvements would not be associated with use of hazardous materials or waste and thus would have negligible emissions associated with them. Therefore, the potential impact to schools within a quarter mile would be considered a **less-than-significant impact**, and no additional mitigation is required.

Conservation Easement

The proposed Conservation Easement would include no physical construction and would have negligible emissions of hazardous materials or wastes associated with it. The potential impacts to schools from hazardous emissions would be **less than significant**, and no mitigation is required.

Threshold HAZ-4. ***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?***

Specific Plan Area

Campus Development

The Project site is located within the March ARB Land Use Compatibility Plan (ALUCP) and is in the C1 Primary Approach/Departure Zone and C2 Compatibility Zones, which requires approval from the Airport Land Use Commission due to the Project site's proximity to the March ARB/Inland Port Airport. The C1 Zone is subject to high to moderate noise and moderate accident potential risk. Both C1 and C2 Compatibility Zones include safety requirements and restrictions within the policies of the ALUCP. While there are no residential components of the proposed Project, workers and visitors to the Project site could be exposed to excessive noise or safety hazards if not designed appropriately.

The C1 Zone is subject to moderate to high noise and moderate accident potential risk. The C2 Zone is subject to moderate noise and a moderate to low accident potential risk. As stated in Section 4.11, based on the ALUCP noise level contours for the March ARB/Inland Port Airport, the Upper Plateau Campus is located mostly between the 60 to 65 dBA CNEL noise level contour boundaries with only a limited portion at the northeast extreme of the Project site proposed for Open Space that falls within the 65 – 70 dBA CNEL contour and does not affect Campus Development. As stated in Section 4.11, the Project's mixed use, business park and industrial land uses are considered normally acceptable land uses since the Specific Plan Area is located either in an area encompassed by the 60 to 65 dBA CNEL contour, or outside of this contour (where airport noise levels would be less than 60 dBA CNEL). The very limited portion at the northeast extreme of the Project site that falls within the 65 – 70 dBA CNEL contour is proposed for Open Space designation, where no development would occur. As a result, the Project impacts were determined to be less than significant, and no further noise analysis was deemed necessary. Additionally, at its May 12, 2022 hearing, the Riverside County Airport Land Use Commission found the proposed Project to be conditionally consistent with the March ARB/IP ALUCP.

The ALUCP for the March ARB/Inland Port Airport also includes policies and safety requirements for proposed improvements located within Zones C1 and C2, which are summarized in Table 4.8-1 (Mead & Hunt 2014).

Table 4.8-1. ALUCP Policies and Safety Requirements for C1 and C2 Zones

Zone	Prohibited Uses	Other Development Conditions
C1	• Children's schools, day care centers, libraries • Hospitals, congregate care facilities, places of assembly • Noise-sensitive outdoor non-residential uses • Hazards to flight.	• Critical community infrastructure facilities discouraged • Aboveground bulk storage of hazardous materials discouraged • Sound attenuation as necessary to meet interior noise level criteria • Airspace review required for objects >70 ft. tall • Electromagnetic radiation notification • Deed notice and disclosure
C2	• Highly noise-sensitive outdoor non-residential uses • Hazards to flight	• Children's schools discouraged • Airspace review required for objects >70 ft. tall • Electromagnetic radiation notification • Deed notice and disclosure

Source: Table MA-2 from Mead & Hunt 2014.

All development associated with the proposed Project must adhere to the March ARB/Inland Port ALUCP and proposed plans that exceed airspace protection surfaces pursuant to the ALUCP would require review and approval from the Riverside County Airport Land Use Commission (ALUC) prior to approval of a building permit (RCALUC 2022). Conformity with the ALUCP policies is required to obtain a consistency determination from the ALUC and building permits from local jurisdictions. The Riverside County ALUC has reviewed the Project and found it to be consistent with the ALUCP provided that certain conditions as stipulated in their May 16, 2022 letter are met (RCALUC 2022).

In addition, in accordance with the wildlife hazard review that was prepared for the Project (Appendix J-4), **PDF-HAZ-1** is incorporated to ensure that Project design plans and Project operations do not create wildlife attractants (e.g., food sources and habitat or nesting opportunities) that could create potential wildlife hazards to the aircraft operations of the March ARB. The incorporation of the recommended modifications identified in those PDFs would make the Specific Plan consistent with agency guidance, the 2018 March ARB AICUZ, and the Riverside County ALUCP with regard to potentially hazardous wildlife. See also Section 4.3, Biological Resources, for further analysis of aviation hazards related to wildlife and wildlife attractants and Section 4.10 for further discussion of compatibility with land use policies. The correspondence is also included within Appendix L of this EIR.

The proposed two industrial warehouse buildings (Buildings B and C) have also undergone FAA review for determination of potential hazard into air navigation space and were found to have no substantial adverse effects on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities (FAA 2022a–h). However, these two structures would still be required to adhere to the March ARB/Inland Port ALUCP and the conditional approval from the May 16, 2022, ALUC review and approval of plans consistent with **MM-HAZ-3**.

Therefore, with adherence to the March ARB/Inland Port ALUCP and the conditions identified from the required ALUC review and approval of proposed plans in accordance with the requirements of **MM-HAZ-3**, as outlined in Section 4.8.6, as well as incorporation of **PDF-HAZ-1** through **PDF-HAZ-4**, the potential safety hazards associated with the Upper Plateau Campus would have a **less-than-significant impact with mitigation incorporated** to people visiting or working in the Specific Plan Area.

Park

The proposed Park would also be located within the March ARB/Inland Port ALUCP within the C2 Zone. The improvements would be relatively minor compared to that of the Specific Plan Area but would still bring visitors to these areas where they could potentially be subject to noise and safety hazards from the March ARB/Inland Port Airport operations. The Park use is not prohibited or discouraged in the C2 Zone. The Park would be located outside the 60 CNEL contour, but regularly overflown in mostly daytime flight training. For safety hazards, as above, adherence to the March ARB/Inland Port ALUCP and the conditions identified from the ALUC review and approval process in accordance with the requirements of **MM-HAZ-3,** as well as incorporation of **PDF-HAZ-1** through **PDF-HAZ-4** as they pertain to the parks, the potential impacts related to safety and noise hazards would be reduced to a **less-than-significant impact with mitigation incorporated.**

Infrastructure Improvements

The proposed infrastructure improvements would similarly be located within the March ARB/Inland Port ALUCP and subject to the requirements and review process in accordance with **MM-HAZ-3** and applicable **PDF-HAZ-1** through **PDF-HAZ-4**. As a result, the potential impacts related to safety and noise hazards would be reduced to a **less-than-significant impact with mitigation incorporated.**

Conservation Easement

The developer and March JPA propose to establish a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As depicted in Figure 4.11-1, MARB/IPA Future Airport Noise Contours, portions of the Conservation Easement are outside of the 60 dBA CNEL and the rest is within the 60 to 65 dBA CNEL contour which is considered normally acceptable for the land uses of the Conservation Easement. The Conservation Easement is already accessed by the public for passive recreational purposes and no physical alteration to the Conservation Easement is anticipated. In addition, **PDF-HAZ-1** would ensure that no conflicts or hazards that could threaten the safety of ongoing aircraft operations. As such, there would be **no impact** with respect to resulting in a safety hazard or excessive noise for people accessing the Conservation Easement.

Threshold HAZ-5. ***Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

Specific Plan Area

Campus Development

As presented in Figures 2a and 2b in Appendix Q of this Draft EIR, Riverside County Fire Hazard Severity Zones Map and CAL FIRE Fire Hazard Severity Zones Map, the Project site was located in an area designated by the Riverside County's General Plan Safety Element and CAL FIRE as a High Fire Hazard Severity Zone (HFHSZ) in a Federal Responsibility Area (CAL FIRE 2021). However, since publication of the Notice of Preparation for this Project, as discussed in Section 4.18, the land on which the Project would be constructed is no longer classified as a HFHSZ. Wildfires can occur in developed areas as has been experienced throughout California in more recent years. The proposed Campus Development would be required to adhere to the most recent version of the California Fire Code which includes fire safety and fire suppression design requirements.

In addition, the Campus Development would adhere to the Fire Protection Plan (FPP) developed for the Project site (Appendix Q). The FPP provides an evaluation of the Project area's fire environment, modeled fire behavior, and fire

hazards and how identified risk can be reduced to levels below significance. The FPP provides results of an assessment of the fire authorities ability to provide service within acceptable timeframes, and documents the Project's fire protection features, compliance with applicable fire and building codes, alternative materials and methods for compliance, if required, and recommendations for features above and beyond code requirements, if necessary. The FPP also include measures to ensure fire protection safety through landscaping restrictions, maintaining fuel modification zone buffers site wide and on the Project's perimeter. All the recommendations of the FPP would be incorporated into the proposed plans. Furthermore, as evaluated in Threshold FIRE-1 in Section 4.18, Wildfire, of this EIR, the Campus Development would be consistent with the 2022 AG Guidance outlining best practices for analyzing and mitigating wildfire impacts of development projects under CEQA.

The Campus Development would also comply with applicable portions of Riverside County Fire Department, Fire Prevention Standards and County Ordinances No. 460 and No. 787-8 as further discussed in Section 4.18. Additionally, as outlined in **MM-FIRE-1**, vegetation management requirements would be implemented at the start of and throughout all phases of construction, and combustible materials would not be brought on site until site improvements (e.g., utilities, access roads, fire hydrants, fuel modification zones) have been implemented and approved by RCFD. Out of an abundance of caution, the Campus Development would be required to comply with all provisions in the Riverside County Code regulating development in a HFHSZ. These include requirements such as ignition-resistant building materials and systems, implementation and ongoing maintenance of fuel modification zones, fire flow and fire hydrant requirements, emergency evacuation plan requirements, egress requirements, and road width and length restrictions. With conversion of the undeveloped landscape to ignition-resistant development and landscaping, wildfires may still encroach upon and drop embers on the Campus Development but would not be expected to burn through the site due to the lack of available fuels and the typical ember decay rate. Further, the proposed fuel modification on perimeter edges adjacent to the open space areas would provide a buffer between fuels in the open space and structures within the Specific Plan Area. As described in Section 4.18, the Specific Plan Area would not be anticipated to facilitate wildfire spread or exacerbate wildfire risk, as demonstrated by the fire behavior modeling analysis presented in Section 4.18 and in Appendix Q. Therefore, considering adherence to the California Fire Code, Riverside County Fire Department requirements, and the FPP itself, the Campus Development's potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires is considered **less than significant**, and no additional mitigation is required.

Park

Similar to the Campus Development discussed above, the Park would be located on land that was formerly, but is not currently, classified as a HFHSZ. However, the proposed Park would be required to adhere to applicable Fire Code regulations and the FPP developed for the Project (Appendix Q). Furthermore, as evaluated in Threshold FIRE-1 in Section 4.18, Wildfire, of this EIR, the Park would be consistent with the 2022 AG Guidance outlining best practices for analyzing and mitigating wildfire impacts of development projects under CEQA. Therefore, with adherence to the California Fire Code, Riverside County Fire Department requirements, **MM-FIRE-1** and the FPP itself, the Park's potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires is considered **less than significant**, and no additional mitigation is required**.**

Infrastructure Improvements

The proposed infrastructure improvements would include utility and roadway networks throughout the Specific Plan Area, a new sewer lift station, electrical substation, and reclaimed water tank. The buried utilities and roadway networks would have negligible risk of loss or injury from wildfires because they would be underground and, once constructed, do not generally have anybody attending them. The other improvements would be subject to applicable

requirements of the California Fire Code, Riverside County Fire Department, **MM-FIRE-1**, and the FPP itself (Appendix Q). The purpose of the FPP is to eliminate causes of fire, prevent loss of life and property by fire, and comply with all applicable standards for these types of facilities. Furthermore, as evaluated in Threshold FIRE-1 in Section 4.18, Wildfire, of this EIR, the Infrastructure Improvements would be consistent with the 2022 AG Guidance outlining best practices for analyzing and mitigating wildfire impacts of development projects under CEQA. Therefore, adherence to these fire prevention and fire safety measures would ensure that the proposed infrastructure has a **less-than-significant impact**, and no additional mitigation is required.

Conservation Easement

The March JPA and the developer propose to establish a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). No physical construction would occur within the Conservation Easement, and fuel modifications on perimeter edges adjacent to the Conservation Easement, consistent with the recommendations identified in the FPP (Appendix Q), would be required to minimize the potential for wildfire hazards. With implementation of the recommendations in the FPP, impacts would be **less than significant**, and no mitigation is required.

4.8.6 Mitigation Measures

The following mitigation measures have been evaluated for feasibility and are incorporated in order to reduce potentially significant impacts related to hazards and hazardous materials for people visiting or working within the Specific Plan Area.

MM-HAZ-1 **Abatement of Hazardous Building Materials.** Prior to issuance of demolition or grading permits, the Project applicant shall submit documentation to the satisfaction of the March Joint Powers Authority (JPA) that all recommendations from the January 17, 2022, Leighton Consulting Inc. Phase II Environmental Site Assessment for Meridian – West Campus Upper Plateau and the May 5, 2022, Leighton Consulting Inc. Hazardous Material (PCB/Treated Wood Waste) Investigation Report have been implemented at the Project site including but not limited to the following:

- The 42 pole-mounted transformers on site shall be disposed of or recycled in accordance with 40 CFR 761 and accompanied by the findings of the April 26, 2022 sampling results including the one sample that showed the presence of Aroclor 1260 at a concentration of 1.5 milligrams per kilogram. In the event that during removal activities, transformer oil is identified or suspected in underlying soils, an assessment of nearby soils and/or hardscapes for PCBs shall be performed in accordance with the requirements set forth in 40 CFR 761.
- Applicable laws and regulations regarding the abatement and removal of asbestos containing materials, metals (cadmium, chromium and/or lead), mercury in light switches and fluorescent tubes, and lead-based paint shall be adhered to and implemented prior to demolition activities.
- Universal Waste Rule items shall be managed in accordance with applicable regulatory requirements.
- All wood poles found throughout the site shall be managed in accordance with California's Alternative Management Standards for treated wood waste consistent with California Health and Safety Code Sections 25230 through 25230.18.
- Evaluate various wastes identified at the site for hazardous waste characterization under California and Resource Conservation and Recovery Act standards for appropriate disposal to a licensed disposal facility.

- All ground disturbing activities shall be conducted by workers trained to look for any suspect contamination which can include odorous soils, soil staining, pipelines, underground storage tanks, or other waste debris. If encountered, earthwork activities shall cease until laboratory analysis of soil samples have been conducted and direction given from the Air Force and/or overseeing agency.

MM-HAZ-2 **Materials Storage Near School.** Facilities located within one-quarter mile of an existing school, including public or private schools as well as preschools, shall not store, handle, or use toxic or highly toxic gases at quantities that exceed threshold levels established by California Health and Safety Code Section 25532.

MM-HAZ-3 **Airport Compatibility.** Prior to issuance of building permits, the Project applicant shall ensure the following:

- All development shall be designed in a manner which does not encroach into civilian and military airspace, as determined through a Federal Aviation Administration 7460-1 airspace analysis, that shall be completed prior to review by the Riverside County Airport Land Use Commission and the March Joint Powers Authority (JPA) granting individual plot plan approval.
- The Project engineer for any development shall submit information confirming that open detention basins, when incorporated into the Project, shall completely drain within 48 hours of a rain event.
- Within Airport Compatibility Zone C1, aboveground storage of more than 6,000 gallons of flammable or hazardous materials shall be reviewed by the Riverside County Airport Land Use Commission, prior to consideration of these facilities by the March JPA.
- Irrespective of above bullet, use/storage of acutely hazardous materials within Airport Compatibility Zone C1, in excess of threshold levels as identified in Title 8 of the Code of Regulations Appendix A to Section 5189 - List of Acutely Hazardous Chemicals, Toxics and Reactive, shall file for approval by the Riverside County Airport Land Use Commission prior to review and approval of the use by the March JPA.
- All development shall be consistent with the conditional approvals by the Riverside County Airport Land Use Commission made in their May 16, 2022, Development Review File No. ZAP1515MA22 as well as the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan.

MM-FIRE-1, of Section 4.18, shall also be implemented.

4.8.7 Level of Significance After Mitigation

With implementation of **MM-HAZ-1**, **MM-HAZ-2**, **MM-HAZ-3**, and **MM-FIRE-1**, as outlined in Section 4.8.6, above, all hazards and hazardous materials impacts associated with the proposed Project would be **less than significant**.

4.8.8 Cumulative Effects

Hazards and hazardous materials impacts are generally localized to specific sites and do not combine with one another in a way to create a greater or more severe hazard. Impacts relative to hazardous materials usually depends

on the nature and extent of the hazardous materials release, and existing and future soil and groundwater conditions. However, hazardous materials incidents tend to be limited to a smaller more localized area surrounding the immediate location and extent of a release and could only be cumulative if two or more hazardous materials releases overlapped spatially and contemporaneously, which is not common.

Related projects, as shown in Table 4-2, Cumulative Projects, would also be subject to federal, state, and local regulations regarding hazards and hazardous materials as that described above for the proposed Project. Although each site from the cumulative projects list (Table 4-2) has unique hazardous materials considerations, it is expected that future development within the region will comply with federal, state, and local statutes and regulations applicable to hazardous materials. As such, cumulatively significant impacts associated with hazards and hazardous materials as well as wildfires, as detailed within Section 4.18, would not be anticipated.

The proposed Project and related projects, as shown in Table 4-2, include a mixture of uses such as commercial and industrial developments, which could store, use, generate or dispose of hazardous materials. Compliance with applicable federal, state, and regional regulations regarding hazardous materials would minimize potential contamination or hazardous materials–related incidents; thus, new development in the Project area is not expected to present significant risks to public health and safety. Further, mitigation measures specific to each proposed project would be developed as part of the environmental review and permitting process. Therefore, implementation of the proposed Project, in addition to the related projects identified in Table 4-2, would not result in cumulatively considerable impacts related to hazards and hazardous materials. Further, mitigation measures specific to each proposed Project would be developed as part of the environmental review and permitting process. Through compliance with existing regulations, the Project would result in **less-than-cumulatively considerable impacts**.

4.8.9 References Cited

CAL FIRE (California Department of Forestry and Fire Protection). 2021. Fire and Resource Assessment Program: Fire Hazard Severity Zones Viewer. Accessed December 7, 2021. https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/.

California Office of the Attorney General. 2022. Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act. Accessed December 30, 2022. https://oag.ca.gov/system/files/attachments/press-docs/2022.10.10%20%20Wildfire%20Guidance.pdf.

EPA (U.S. Environmental Protection Agency). 2021a. *Federal Bans on Asbestos*. Last Updated December 30, 2020. Accessed November 9, 2021. https://www.epa.gov/asbestos/us-federal-bans-asbestos.

EPA. 2021b. *Policy and Guidance for Polychlorinated Biphenyl (PCBs)*. Last Updated April 25, 2017. Accessed November 14, 2018. https://www.epa.gov/pcbs/policy-and-guidance-polychlorinated-biphenyl-pcbs.

FAA (Federal Aviation Administration). 2022a. *Determination of No Hazard to Air Navigation, Commercial Use Building MWC Upper – Bldg C SWC,* April 29, 2022.

FAA. 2022b. *Determination of No Hazard to Air Navigation, Commercial Use Building MWC Upper – Bldg B SEC,* April 29, 2022.

FAA. 2022c. *Determination of No Hazard to Air Navigation, Commercial Use Building MWC Upper – Bldg C NEC,* April 29, 2022.

FAA. 2022d. *Determination of No Hazard to Air Navigation, Commercial Use Building MWC Upper – Bldg C SEC,* April 29, 2022.

FAA. 2022e. *Determination of No Hazard to Air Navigation, Commercial Use Building MWC Upper – Bldg B NEC,* April 29, 2022.

FAA. 2022f. *Determination of No Hazard to Air Navigation, Commercial Use Building MWC Upper – Bldg C NWC,* April 29, 2022.

FAA. 2022g. *Determination of No Hazard to Air Navigation, Commercial Use Building MWC Upper – Bldg B NWC,* April 29, 2022.

FAA. 2022h. *Determination of No Hazard to Air Navigation, Commercial Use Building MWC Upper – Bldg B SWC,* April 29, 2022.

Leighton Consulting Inc. 2022. *Hazardous Material (PCB/Treated Wood Waste) Investigation Report, Meridian – West Campus Upper Plateau, May 5, 2022.*

March ARB 2018. Final Air Installations Compatible Use Zones Study, March Air Reserve Base, Riverside, California, 2018.

March JPA (Joint Powers Authority). 1999. *General Plan of the March Joint Powers Authority*. https://www.marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

Mead & Hunt. 2014. *March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan.* Adopted November 13, 2014. Accessed November 10, 2021. http://www.rcaluc.org/Portals/13/PDFGeneral/plan/2014/17%20-%20Vol.%201%20March%20Air%20Reserve%20Base%20Final.pdf.

RCALUC (Riverside County Airport Land Use Commission). 2022. *Airport Land Use Commission (ALUC) Development Review, File No. ZAP1515MA22*, May 16, 2022.

SFBRWQCB (San Francisco Regional Water Quality Control Board). 2019. User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final 2019, 2019.

Land Use Category	CNEL (dB) 50–55	55–60	60–65	65–70	70–75
Residential *					
single-family, nursing homes, mobile homes	++	o	–	– –	– –
multi-family, apartments, condominiums	++	+	o	– –	– –
Public					
schools, libraries, hospitals	+	o	–	– –	– –
churches, auditoriums, concert halls	+	o	o	–	– –
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	– –	– –

Land Use Acceptability		Interpretation/Comments
++	*Clearly Acceptable*	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	*Normally Acceptable*	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	*Marginally Acceptable*	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	*Normally Unacceptable*	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
– –	*Clearly Unacceptable*	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

* Subtract 5 dB for low-activity outlying airports (Chiriaco Summit and Desert Center)

FIGURE 4.8-1

Riverside County Airport Land Use Compatibility Criteria: Noise

INTENTIONALLY LEFT BLANK

4.9 Hydrology and Water Quality

This section describes the existing hydrology and water quality conditions of the proposed West Campus Upper Plateau Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to the implementation of the proposed Project. The analysis is based, in part, on the following documents:

- Preliminary Hydrology Study, Meridian Park Upper Plateau, prepared by DRC Engineering in February 2022 (Appendix K-1)
- Master Project Specific Water Quality Management Plan, Master Meridian West Campus Upper Plateau, prepared by DRC Engineering in September 2021 (Appendix K-2)
- Project Specific Water Quality Management Plan, Meridian Park South Building B, prepared by DRC Engineering in March 2022 (Appendix K-3)
- Project Specific Water Quality Management Plan, Meridian Park South Building C, prepared by DRC Engineering in March 2022 (Appendix K-4)
- Preliminary Hydrology Study for Meridian Park Upper Plateau - Building B, prepared by DRC Engineering in May 2022 (Appendix K-5)
- Preliminary Hydrology Study for Meridian Park Upper Plateau - Building C, prepared by DRC Engineering in May 2022 (Appendix K-6)
- Water Supply Assessment, Meridian West Upper Plateau Project, prepared by Western Municipal Water District in February 2022 (Appendix O)
- Geotechnical Exploration, Proposed Meridian West Campus Upper Plateau, East of La Crosse Street and South of Camino Del Sol, Riverside, prepared by Leighton Consulting Inc. in December 2022, (Appendix G)

As discussed in detail in Chapter 3, Project Description, of this Environmental Impact Report (EIR), the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1,280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.9.1 Existing Conditions

Regional Watershed

The proposed Project site is located within the Santa Ana River Watershed, which drains a 2,650-square-mile area in Southern California. This watershed is home to over 6 million people and includes major population centers, such as parts of Orange, Riverside, and San Bernardino Counties, as well as a small part of Los Angeles County. The Santa Ana River flows over 100 miles and drains the largest coastal stream system in Southern California. The watershed eventually outfalls into the Pacific Ocean in the City of Huntington Beach. The total length of the Santa Ana River and its major tributaries is about 700 miles (Appendix K-2; Santa Ana Watershed Project Authority 2014).

The Santa Ana River Watershed is subdivided into a number of subwatersheds throughout its boundary. The Project site is located within the Santa Ana River Subwatershed, which includes the Middle Santa Ana, Temescal Wash, and San Timoteo Creek subwatersheds. Surface drainage in this area is generally westward from the City of Riverside to the Santa Ana River, Reach 3. The tributary area to the Santa Ana River Subwatershed is 170 square miles. Tributaries to this subwatershed include Temescal Creek (Reaches 1 through 6), Tequesquite Arroyo (Sycamore Creek), Day Creek, and San Sevaine Creek (County of Riverside 2017).

Topography

As previously discussed in Section 4.6, Geology and Soils, the topography of the Project site consists of low rolling hills, with undulating topography. Site elevations range from 1,765 feet above mean sea level (amsl) in the central portion to 1,645 feet amsl in the northeast portion of the site (Figure 4.6-1, Existing Topography) (Appendix G).

Stormwater Drainage

Drainage is generally from the elevated central portion of the Project site to the perimeters through natural drainage features incised into the rolling hills. Based on a hydrology analysis completed for the proposed Specific Plan Area, the site consists of 17 separate watersheds, each which drain to the Santa Ana River (Figure 4.9-1, Existing Site Watersheds). The watersheds flow into both County of Riverside and City of Riverside drainage facilities. Table 4.9-1 summarizes these Project site watersheds.

Table 4.9-1. Project Site Watersheds

Watershed	Description
3, 4, 5, 6, 7	Flow to residential development to the north and outlets into Sycamore Canyon Wilderness Park, which drains to the northwest to Sycamore Dam. Overflow from Sycamore Dam flows northwest and west through Tequesquite Arroyo to the Santa Ana River.
8, 9, 10, 11, 12	Flow east primarily under Meridian Parkway and outlet into the North Detention Basin, a part of the first phase of the Meridian Business Park Development. Overflow from the detention basin flows northwest through Sycamore Canyon Wilderness Park to Sycamore Dam to the northwest. Overflow from Sycamore Dam flows northwest and west through Tequesquite Arroyo to the Santa Ana River.
13*	Flows east through residential development and outlets near Bakal Drive and Orchard Park Drive. Flows southeast to regional Lot E/49 detention basin. Overflow from Lot E/49 basin crosses under I-215 freeway and enters Perris Valley Storm Drain. Further downstream stormwater passes through Canyon Lake, the San Jacinto River, Lake Elsinore, and the Santa Ana River.

Table 4.9-1. Project Site Watersheds

Watershed	Description
1, 2, 14, 15, 16, 17	Flow to the west and northwest toward unnamed northwest-flowing creek, which runs northwest toward Alessandro Dam. Overflow from the dam continues northwest through unnamed creek to Mary Street Dam. Overflow from Mary Street Dam continues underground and outlets at Santa Ana River.

Source: Appendix K-1; USGS 2021
Note:
* Pertains to Conservation Easement only, Specific Plan Area not a part of this watershed

One small Project site watershed (Number 13), in the southeast portion of the Conservation Easement, is within the Perris Valley Master Drainage Plan (MDP) area, as designated by the Riverside County Flood Control and Water Conservation District (RCFCWCD). None of the other watersheds, including the Project Specific Plan Area, are within an MDP (Figure 4.9-2, Master Drainage Plan Areas). MDPs address the current and future drainage needs of a given community, by investigating and evaluating drainage problems, as well as developing an economical drainage plan that provides flood protection for the most seriously impacted portions of communities. The boundary of MDP areas follow regional watershed limits (RCFCWCD 1991, 2014, 2021).

Hydrologic Conditions of Concern

Applicants for New Development and Significant Redevelopment projects (i.e., in excess of one acre) must identify whether the project is subject to Hydrologic Conditions of Concern (HCOC) requirements, and when required, meet the HCOC requirements, in accordance with the Santa Ana Region Hydromodification Management Plan (Santa Ana RWQCB 2017). The objective of this plan is to manage increases in runoff volumes and decreases in time of concentration that may result from New Development and Significant Redevelopment projects. Applicable projects shall demonstrate compliance with the HCOC maximum extent practicable standards. Generally, the HCOC is not significant if the post-development hydrograph is no more than 10% greater than the pre-development hydrograph. Or in other words, post-construction stormwater flow is not considered significant if the flow rate is less than 110% of existing conditions. In cases where excess volume cannot be infiltrated or captured and used, discharge from the site must be limited to a flow rate no more than 110% of the pre-development 2-year, 24-hour peak flow. The Project site is located in an HCOC-applicable area (RCFCWCD 2012; Appendix K-2).

Surface Water Quality

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 County of Riverside and March Joint Powers Authority (JPA) to control the discharge of pollutants to the storm drain system, including the discharge of pollutants from construction sites and areas of new development.

State and Federal Requirements

In accordance with state policy for water quality control, the Santa Ana Regional Water Quality Control Board (RWQCB) regulates water quality, among various other agencies, within the Santa Ana Region. Water quality objectives, plans, and policies for the surface waters within this region are established in the Santa Ana Region Basin Plan, which has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. As indicated in Table 4.9-1, surface waters from the majority of the Project site drain through Sycamore Canyon, Tequesquite Arroyo, unnamed creeks, and storm drains to the Santa Ana River. As indicated in Table 4.9-2, of these drainages, the RWQCB has identified beneficial uses for only the Santa Ana River.

One small (11.0-acre) Project site watershed (Number 13), in the southeast portion of the Conservation Easement, drains toward the San Jacinto River Watershed (Appendix K-2; USGS 2021; SWRCB 2019).

Under the Clean Water Act 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. 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. As indicated in Table 4.9-2, of the listed bodies of water, the only impaired waters downstream of the proposed Specific Plan Area is the Santa Ana River, which is on the 303(d) list for copper, lead, and pathogens. Receiving waters in the San Jacinto River Watershed only pertain to Project site Watershed 13 of the proposed Conservation Easement. Downstream impaired waterbodies in the San Jacinto River Watershed include Canyon Lake and Lake Elsinore (Appendix K-2; SWRCB 2011).

Table 4.9-2. Identified Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses
Santa Ana River Watershed		
Sycamore Canyon	N/A	None
Tequesquite Arroyo	N/A	None
Santa Ana River, Reach 3	Copper, Lead, Pathogens	Agricultural water supply, groundwater recharge, contact/non-contact recreation, warm freshwater habitat, wildlife habitat, rare threatened or endangered species
*Middle and Lower San Jacinto River Watershed**		
Perris Valley Storm Drain	N/A	None
San Jacinto River	N/A	Intermittent beneficial use: Agricultural water supply; groundwater recharge; contact/non-contact recreation; warm freshwater habitat; wildlife habitat; and threatened or endangered species
Canyon Lake	Nutrients, Pathogens	Municipal and domestic water supply; agricultural water supply; groundwater recharge; contact/non-contact recreation; warm freshwater habitat; wildlife habitat; and threatened or endangered species
Lake Elsinore	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs, Sediment Toxicity, Unknown Toxicity	Municipal and domestic water supply; agricultural water supply; groundwater recharge; contact/non-contact recreation; warm freshwater habitat; wildlife habitat; and threatened or endangered species

Source: Appendix K-2; SWRCB 2011, 2019
Notes: EPA = U.S. Environmental Protection Agency; N/A = not applicable
* Pertains to Watershed 13 of Conservation Easement only, Specific Plan Area not a part of this watershed

County and March JPA Requirements

The County of Riverside is a co-permittee under the National Pollutant Discharge Elimination System (NPDES) Permit for the RCFCWCD (i.e., County of Riverside municipal separate storm sewer system [MS4] permit). The NPDES permit sets limits on pollutants being discharged into waterways and requires all new development and significant redevelopment to incorporate low-impact development (LID) features, as laid out in the County of Riverside 2011 Design Handbook for Low Impact Development Best Management Practices (County of Riverside 2011). Priority projects in the County of Riverside are required to develop and implement a Water Quality Management Plan (WQMP) to reduce pollutants, maintain and reduce downstream erosion, as well as maintain stream habitat from all new development. The Santa Ana RWQCB has established the Water Quality Management Plan, A Guidance Document for the Santa Ana Region of Riverside County (Santa Ana RWQCB 2012) (i.e., the 2012 Riverside County WQMP Template and Guidance document) as a template for completing WQMPs.

The National Pollutant Discharge Elimination System (NPDES) New Development & Redevelopment Guidelines for Projects Under the March Joint Powers Authority, also known as the March JPA WQMP Guidance Document (March JPA 2008) meets the intent of the Riverside County MS4 Permit, which is implemented throughout Riverside County. However, as a small local government with a population of less than 100,000, March JPA is primarily charged with the redevelopment of the former March Air Force Base. March JPA is not a Co-Permittee of (and is not subject to) the Riverside County MS4 Permit. However, the March JPA WQMP Guidance Document is used by March JPA as a guidance document to help establish consistency with other agencies, including the EPA, U.S. Fish and Wildlife Services, Santa Ana RWQCB, and the County of Riverside. The March JPA WQMP Guidance Document includes (1) general information on regulations, (2) WQMP submittal requirements, (3) design guidelines for BMPs, (4) Stormwater Pollution Prevention Plan (SWPPP) submittal requirements and guidelines, and (5) March JPA submittal and approval process information.

Based on the March JPA WQMP Guidance Document (March JPA 2008), a Project-specific WQMP must be completed for new development projects, such as the proposed Project. Prior to issuance of conceptual approvals, the applicant must submit to the March JPA for review and approval a Project-specific Preliminary WQMP that includes the following:

1) Site design BMPs, such as reducing urban runoff by minimizing impervious areas/footprints, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas;
2) A detailed description of Applicable Source Control BMPs, as described in the March JPA WQMP Guidance Document; and
3) Treatment Control BMPs, as described in the March JPA WQMP Guidance Document, including information regarding design considerations.

For discretionary actions that include a precise plan of development, after the Preliminary WQMP is approved, the applicant shall (1) ensure that development projects comply with regulatory agency requirements, including federal, state, and regional regulations; and (2) submit a final WQMP including plans, including elevations, slopes, and other details of the proposed structural BMPs. For projects subject to HCOC requirements, such as the Project site, the WQMP has been completed in conjunction with the HCOC stormwater detention plan.

Water Supply

The Western Municipal Water District (WMWD) will provide potable and non-potable water service to the Specific Plan Area. WMWD's total service area covers 527 square miles throughout western Riverside County, of which 104 square miles are included in its retail service area. According to WMWD's 2020 Urban Water Management Plan (UWMP) and a Project-specific Water Supply Assessment (WSA) by WMWD, the retail water agencies within WMWD's general service area boundary use a variety of local groundwater, surface water, and recycled water sources to meet customer demands. In addition, WMWD provides desalinated groundwater and imported water as supplemental supplies to its wholesale customers. Groundwater is derived from seven different basins, including the San Bernardino Basin Area, Chino Basin, Riverside-Arlington Basin, Temescal Basin, Bedford-Coldwater Basin, Elsinore Valley Basin, and Temecula Valley Basin. Each of these basins is either adjudicated and managed by a Watermaster or managed by a Groundwater Sustainability Agency to ensure long term reliable supply, even in dry years (WMWD 2021; Appendix O).

Historically, groundwater has been a reliable source of water for WMWD during normal and short-term drought conditions because this source is local and has a large storage capacity that will still be available when surface flows become limited. However, groundwater supply availability becomes threatened when overdraft occurs, and when recharge and inflow decrease. In order to mitigate these potential threats, the 2020 UWMP includes a Water Supply Shortage Contingency Plan. As both a wholesale and retail water agency, WMWD has developed plans to address water supply reductions to member agencies, as well as to individual retail customers. These plans aim to address water supply reduction to member agencies at times of interrupted or significantly reduced water supply, such as a drought or earthquake. Within WMWD's retail service jurisdiction, the Water Shortage Supply Contingency Plan describes five stages of water supply shortages and provides a set of strategies to ensure that water is beneficially used at the customer level. In addition, in order to reliably meet future water demands, WMWD is continuing to expand its water supplies when the opportunity arises and coordinates with nearby agencies to achieve water supply goals. These plans involve increasing the availability of groundwater storage, recharging existing aquifers, as well as expanding to nearby basins, such as the Chino Basin (WMWD 2021).

Groundwater

The Project site is not underlain by a designated groundwater basin. The western boundary of the West San Jacinto Groundwater Management Area, including the Perris North Subbasin of the San Jacinto Groundwater Basin, lies east of Interstate 215. This basin is not under the jurisdiction of WMWD but rather under the authority of the Eastern Municipal Water District (EMWD 2021). As such, this aquifer is not currently used to supply the water needs of existing infrastructure within the Project site.

As previously discussed in Section 4.6, the majority of the Project site is topsoil/colluvium, younger alluvium, and some artificial fill, which is underlain by Val Verde Tonalite bedrock. Groundwater was only encountered in one of six Project site geotechnical borings, at a depth of 48 feet. Groundwater was also encountered during previous grading of the western terminus of Cactus Avenue, for Meridian Park West. The groundwater encountered within the tonalite bedrock is associated with a joint/fracture system (Appendix G).

A site-specific Preliminary Hydrology Study conducted by DRC Engineering (Appendix K-1), determined that for calculation purposes, soils underlying the West Campus Upper Plateau area predominantly consisted of soil type C, which is defined as soils having slow infiltration rates when thoroughly wetted; consisting chiefly of silty-loam soils with a layer that impedes downward movement of water; or soils with moderately fine to fine texture. These soils have a slow rate of water transmission with respect to groundwater recharge. In addition, the site-specific Master

Project Specific Water Quality Management Plan (Appendix K-2) indicates that the site is not suitable for stormwater infiltration BMPs. Therefore, the site is not conducive to substantial groundwater recharge.

Flood Hazards

Flooding susceptibility in Riverside County is primarily associated with several major stream drainages, including but not limited to the Santa Ana River, the San Jacinto River, and the Whitewater River, as well as smaller scale and flash flood events on many of the alluvial fans that flank hillsides throughout Riverside County. Large-scale developments have utilized golf courses and greenbelts as part of a network of channels that collect flood flows on the upstream side of a project, carry it safely through the area, and disperse it on the downstream side. However, given the low permeability of the underlying bedrock, heavy runoff from the surrounding hills and mountains during strong storms cannot be prevented (County of Riverside 2021).

The Federal Emergency Management Agency (FEMA) has determined that the Project site is located within Zone D, per an updated Flood Insurance Study, which became effective August 28, 2008. Zone D areas are defined as having possible, but undetermined flood hazards (FEMA 2021). No flood hazard analysis has been conducted for these areas; however, an on-site geotechnical evaluation of the Specific Plan Area performed by Leighton Consulting concluded that the site is not within a flood plain and the potential for flooding is considered very low (Appendix G). Furthermore, the County of Riverside Safety Element Figure 5, Dam Hazards Inundation, indicates that the Project site is not located within a Dam Hazard Zone (County of Riverside 2021).

4.9.2 Relevant Plans, Policies, and Ordinances

Federal

Clean Water Act

Increasing public awareness and concern for controlling water pollution led to the enactment of the federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as the Clean Water Act (CWA) (33 USC 1251 et seq.). The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The CWA established basic guidelines for regulating discharges of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA.

Section 303 of the Clean Water Act (Beneficial Use and Water Quality Objectives)

The Santa Ana RWQCB is responsible for the protection of the beneficial uses of waters within the proposed Project area in Riverside County. The RWQCB uses its planning, permitting, and enforcement authority to meet its responsibilities adopted in the Basin Plan to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the RWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan for the Santa Ana Region has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. Under 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. A TMDL defines how much of a specific pollutant/stressor a given

water body can tolerate and still meet relevant water quality standards. The RWQCB has developed TMDLs for select reaches of water bodies.

Section 401 of the Clean Water Act (Water Quality Certification)

Section 401 of the CWA requires that an applicant for any federal permit (e.g., a U.S. Army Corps of Engineers Section 404 permit) obtain certification from the state, requiring that discharge to waters of the United States would comply with provisions of the CWA and with state water quality standards. For example, an applicant for a permit under Section 404 of the CWA must also obtain water quality certification per Section 401 of the CWA. Section 404 of the CWA requires a permit from the U.S. Army Corps of Engineers prior to discharging dredged or fill material into waters of the United States unless such a discharge is exempt from CWA Section 404. For the Project area, the Santa Ana RWQCB provides the water quality certification required under Section 401 of the CWA.

Section 402 of the Clean Water Act (NPDES)

The CWA was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with an NPDES permit. The NPDES permit program, as authorized by Section 402 of the CWA, was established to control water pollution by regulating point sources that discharge pollutants into waters of the United States (33 USC 1342). In California, the EPA has authorized the State Water Resources Control Board (SWRCB) permitting authority to implement the NPDES program.

Regulations (Phase II Rule) that became final on December 8, 1999, expanded the existing NPDES Program to address stormwater discharges from construction sites that disturb land equal to or greater than 1 acre and less than 5 acres (small construction activity). The regulations also require that stormwater discharges from small MS4s be regulated by an NPDES General Permit for Storm Water Discharges Associated with Construction Activity, Order No. 99-08-DWQ (i.e., the Construction General Permit). March JPA is not a Co-Permittee of (and is not subject to) the Riverside County MS4 Permit. However, the March JPA WQMP Guidance Document (March JPA 2008) is used by March JPA as a guidance document to help establish consistency with other agencies and regulations. Based on this document, it is the responsibility of applicants within March JPA to obtain coverage under the Construction General Permit and develop a SWPPP, which describes BMPs the discharger would use to protect stormwater runoff. The BMPs must be designed to prevent, to the maximum extent practicable, an increase in the sediment yield and flow velocity from pre-construction/pre-development conditions, to assure that applicable water quality standards, including TMDL waste allocations, are met.

The SWPPP must contain a visual monitoring program, a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs, and a sediment-monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. On September 2, 2009, the SWRCB issued a new NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002), that became effective July 1, 2010.

Section 404 of the Clean Water Act

Section 404 of the CWA established a permitting program to regulate the discharge of dredged or fill material into waters of the United States, which include wetlands adjacent to national waters (33 USC 1344). This permitting program is administered by the U.S. Army Corps of Engineers and enforced by the EPA.

National Flood Insurance Program

The National Flood Insurance Act of 1968 established the National Flood Insurance Program in order to provide flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The Act also required 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 that delineate the areas of known special flood hazards and their risk applicable to the community. The program encourages the adoption and enforcement by local communities of floodplain management ordinances that reduce flood risks. In support of the 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 statewide antidegradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations (CFR), state antidegradation policies and implementation methods shall, at a minimum, protect and maintain: (1) existing in-stream water uses; (2) 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) water quality in waters considered an outstanding national resource.

Federal Aviation Administration Advisory Circular 150/5200-33B

In 2007, the Federal Aviation Administration issued Advisory Circular No. 150/5200-33B, providing guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. The Advisory Circular also discusses airport development projects, including airport construction, expansion, and renovation, affecting aircraft movement near hazardous wildlife attractants. Hazardous wildlife is defined as any species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard. Included within the Advisory Circular are minimum separation criteria for land-use practices that attract hazardous wildlife to the vicinity of airports. Separation distances are based on flight patterns, altitude at which most strikes happen, and National Transportation Safety Board recommendations. Land use practices discussed within the Advisory Circular associated with wildlife hazards directly applicable to the proposed Project include the placement and design of new stormwater management facilities, which must drain within 48 hours after a storm event.

State

Senate Bill 610 and Senate Bill 221: Water Supply Assessments and Water Supply Verifications

Senate Bill (SB) 610 and SB 221, 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 evidentiary basis for an approval action by the March JPA on such projects. Under Water Code Section 10912(a), projects subject to the California Environmental Quality Act (CEQA) requiring a water supply assessment 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 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.

California Water Code Section 10610 et seq., Urban Water Management Planning Act

California urban water providers are required by state law to develop an UWMP to ensure sufficient water supplies are available to meet the long-term needs of its customers during normal, dry, or multiple-dry years. The Urban Water Management Planning Act requires urban water suppliers, which provide water for municipal purposes to more than 3,000 customers or supply more than 3,000 acre-feet of water annually, to develop an UWMP every 5 years, in the years ending in 0 and 5.

In the Act, the California Legislature declared that the waters of the state are a limited and renewable resource subject to ever increasing demands; that the conservation and efficient use of urban water supplies are of a statewide concern; that successful implementation of plans is best accomplished at the local level; that conservation and efficient use of water shall be actively pursued to protect both the people of the state and their water resources; that conservation and efficient use of urban water supplies shall be a guiding criterion in public decisions; and that urban water suppliers shall be required to develop water management plans to achieve conservation and efficient use.

The WMWD 2020 UWMP has been prepared in compliance with these requirements of the Act, as well as the additional reporting requirements of the Water Conservation Act of 2009. The WMWD 2020 UWMP is an update of its 2015 UWMP and incorporates information from the WMWD 2019 Water Use Efficiency Master Plan, 2014 Recycled Water Master Plan, and other local and regional planning documents. In addition, the UWMP has been prepared in parallel with an WMWD Drought Contingency Plan. The UWMP is intended to serve as a general, flexible, and open-ended document that periodically can be updated to reflect changes in regional water supply trends, conservation policies, and water use efficiency policies.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package—Assembly Bill 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley)—collectively known as SGMA, which 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 California Department of Water Resources provides ongoing support to local agencies through guidance, financial assistance, and technical assistance. SGMA empowers local agencies to form GSAs to manage basins sustainably and requires those GSPs for crucial (i.e., medium to high priority) groundwater basins in California. Adjudicated basins are exempt from developing a Groundwater Sustainability Agency or Groundwater Sustainability Plan.

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 the state. The Project site falls within the jurisdiction of the Santa Ana RWCQB. The Porter-Cologne Water Quality Act (California Water Code Section 13000 et seq.; California Code of Regulations, Title 23, Division 3, Chapter 15) provides a comprehensive water-quality management system for the protection of California waters. Under the 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 Clean Water Act, the state essentially treats Waste Discharge Requirements and NPDES 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 nonpoint (e.g., stormwater runoff) sources. The RWQCB implements the NPDES program by issuing construction and industrial discharge permits.

Under the NPDES permit regulations, BMPs are required as part of a SWPPP. The 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).

CALGreen

Formerly known as the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations, CALGreen is designed to improve public health, safety, and general welfare by using 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 local agencies to aim for a higher standard of development.

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., 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 shall be maintained, and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

California Toxics Rule

The USEPA 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, while 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. As indicated below under Local, WMWD is one of five member agencies of the Santa Ana Watershed Project Authority that have been granted authority to act as a steward for the Santa Ana River Watershed.

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).

Local

Santa Ana Watershed Project Authority

WMWD is one of five member agencies of the Santa Ana Watershed Project Authority, which is a regional water resources planning and project implementation organization. As a water rights steward of the Santa Ana River Watershed, WMWD monitors the quantities of water taken by all regional agencies with water rights. WMWD's general manager serves as a court-appointed guardian, or watermaster, as required by two 1969 court rulings or adjudications. These judgments determined the rights of the watershed users and other watershed entities. The court designated four public agencies, including WMWD, to represent the interests of the upper and lower areas of the Santa Ana River, and gave the agencies the responsibility to oversee the watershed and fulfill court-ordered obligations. WMWD is involved in four watermaster functions concerning surface water rights and groundwater adjudication, including the Santa Ana River, San Bernardino Basin Area, Chino Groundwater Basin, and the Santa Margarita River.

General Waste Discharge Requirements for De Minimis Discharges

On June 19, 2015, the Santa Ana RWQCB adopted the General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimis) Threat to Water Quality (Order No. R8-2015-0004, NPDES No. CAG998001). This permit regulates the discharge of groundwater and non-stormwater construction dewatering waste to surface waters (including estuarine and ocean waters) that pose an insignificant threat to water quality in the Santa Ana Region. Under this permit, discharges must comply with discharge specifications, receiving water and groundwater limitations, and monitoring and reporting requirements detailed in the permit.

March JPA General Plan

Resource Management Element

The Resource Management Element of the March JPA General Plan includes goals and policies related to water resources. The following goals and policies from the March JPA General Plan apply to the Project (March JPA 1999). Consistency with these goals and policies is discussed in Section 4.10, Land Use and Planning, of this EIR.

Water Resources

Goal 1: Conserve and protect surface water, groundwater, and imported water resources.

Policy 1.1: Where possible, retain local drainage courses, channels, and creeks in their natural condition.

Policy 1.2: Protect groundwater and surface water resources from depletion and sources of pollution.

Policy 1.3: Cooperate with federal, state, and County governments and other agencies on the maintenance and improvement of the quality and quantity of local and regional groundwater resources.

Policy 1.4: Require development to conserve water resources, including the use of water-efficient plumbing fixtures and irrigation systems.

Policy 1.5: Conserve imported water by requiring water conservation techniques, water-conserving and recycling processes, drought-resistant landscaping, and reclaimed water for irrigation, when available and appropriate.

Policy 1.6: Promote the use of drought tolerant landscaping in development, and encourage the use of reclaimed water for irrigation in parks, golf courses, and industrial uses, as well as for other urban uses, whenever feasible and where legally permitted.

Policy 1.7: Assist responsible public agencies in eliminating the discharge of toxic materials and untreated sewage into the March JPA drainage and groundwater system.

Policy 1.8: Assure that development projects comply with regulatory agency requirements, including federal, state, and regional regulations.

Minimize Flood Hazards

Goal 2: Control flooding to reduce major losses of life and property.

Policy 2.1: Require development within identified flood hazard areas to comply with Floodplain Management Regulations and criteria for the Federal Flood Insurance Program.

Policy 2.2: Ensure all proposed divisions of land divisions contain adequate building sites located outside of any natural drainage course.

Policy 2.3: Ensure that development does not divert storm water runoff onto adjacent properties, or cause alterations of natural drainage courses that cannot be adequately handled by flood control improvements installed coincident with the development.

Policy 2.4: Cooperate with the Riverside County Flood Control and Water Conservation District and the Federal Emergency Management Agency (FEMA) to ensure that land uses and development proposed within major floodplain areas is consistent with planned improvements and the timing of their installation.

Policy 2.5: To the greatest extent possible, require development to use master flood control facilities and limit use of interim drainage facilities or open channels.

Policy 2.6: Open channels shall be encouraged, as appropriate, to maintain or enhance riparian habitat areas.

Land Use Element

The Land Use Element of the March JPA General Plan includes goals and policies related to water resources. The following goals and policies from the March JPA General Plan apply to the Project (March JPA 1999). Consistency with these goals and policies is discussed in Section 4.10 of this EIR.

Goal 13: Secure adequate water supply system capable of meeting normal and emergency demands for existing and future land uses.

Policy 13.1: Only approve development which can demonstrate an adequate and secure water supply for the proposed use.

Policy 13.2: Enhance local groundwater supplies through development designs which promote an on-site recharge and minimize permeable ground coverage with landscaped areas, open space or recreation areas.

Policy 13.3: Design and operate March JPA facilities in compliance with established water conservation practices and programs.

Goal 17: Adequate flood control facilities shall be provided prior to, or concurrent with, development in order to protect the lives and property within the March JPA Planning Area.

Policy 17.1: Provide for the adequate drainage of storm runoff to protect the lives and property within the Planning Area.

Policy 17.2: Monitor and maintain drainage and flood control facilities to ensure adequate capacity to support the land use plan.

Policy 17.3: Require new development to construct new or upgrade existing drainage facilities to accommodate the additional storm runoff caused by the development.

Policy 17.4: Require all storm drain and flood control facilities to be approved and operational prior to the issuance of certificates of occupancy for the associated development.

Policy 17.5: Designate and preserve land for necessary flood control facilities, in accordance with a certified hydrology study and master plan for March JPA Planning Area.

Policy 17.6: Ensure development within the 100-year flood plain, as designated by the Federal Emergency Management Agency (FEMA), shall be consistent with the requirements established by FEMA.

Policy 17.7: Seek to preserve drainage courses in their natural condition, while providing adequate safety and protection of property.

4.9.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to hydrology and water quality are based on the March JPA 2022 CEQA Guidelines. According to the March JPA 2022 CEQA Guidelines, a significant impact related to hydrology and water quality would occur if the Project would:

HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

HYD-2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

HYD-3: 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:

a) Result in substantial erosion or siltation on or off site;
b) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
c) 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
d) Impede or redirect flood flows.

HYD-4: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

HYD-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.9.4 Impacts Analysis

Threshold HYD-1. ***Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?***

Specific Plan Area

Campus Development

Construction

The proposed Campus Development area is largely undeveloped with the exception of a water tower, seven buildings in various states of abandonment, paved and dirt access roads, and 16 bunkers that were previously used for munitions storage by the Air Force. Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Campus Development would include seven Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. Construction-related activities could potentially result in sediment releases due to exposure of previously stabilized soils to rainfall/runoff and wind. Such activities include the removal of vegetation, demolition of on-site infrastructure, and grading of the site. Environmental factors that affect erosion include topographic, soil, and rainfall characteristics. Erosion and sedimentation affect water quality and interferes with photosynthesis; oxygen exchange; and the respiration, growth, and reproduction of aquatic species. Additionally, other pollutants, such as nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported into downstream drainages, including the waterbodies listed in Table 4.9-2, which could contribute to the degradation of water quality. Furthermore, during grading and temporary stockpiling of soil, there is the potential for soil migration off site via wind (see Section 4.2, Air Quality, of this EIR for further discussion of construction-generated air quality impacts).

Non-sediment-related pollutants that are also of concern during construction include construction materials (e.g., paint, stucco); chemicals, liquid products, and petroleum products used in building construction or the maintenance of heavy equipment; and concrete-related pollutants.

Construction impacts from Campus Development would be minimized through compliance with local, state, and federal regulations pertaining to water quality standards. This includes adherence to the Construction General Permit that requires future projects of 1 acre or more to prepare and implement a SWPPP prior to grading and construction activities. The SWPPP is required to identify BMPs that protect stormwater runoff and ensure the avoidance of substantial degradation of water quality during Project construction. All demolition and construction activities associated with Campus Development, including installation and realignment of utilities, would be subject to existing regulatory requirements.

The March JPA would file a Notice of Intent with the SWRCB to comply with the requirements of the Construction General Permit. This process would include the preparation of a SWPPP and incorporation of BMPs to control construction-related erosion and sedimentation in dry weather and stormwater runoff. 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 demolition and construction.
- Implementing specifications for demolition/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 the Project site and adjoining roadways.
- Training, including for subcontractors, on general site housekeeping.

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 CALGreen requirements. Compliance with existing regulations would prevent violation of water quality standards and minimize the potential for contributing sources of polluted runoff. Therefore, compliance with existing regulations would ensure that Campus Development construction would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface quality from construction activities.

However, construction is estimated to begin in June 2023 and last for approximately 4.5 years. Phase 1 construction would include all rough grading and is expected to last 9 months, ending in early 2024. Phase 2, which would begin after completion of Phase 1, and would include site preparation, construction of the new park, and construction of the buildings throughout the Specific Plan Area. Phase 2 would last approximately 3.5 years, commencing in early 2024 and ending in 2027, when the site is fully occupied and operational. Based on this schedule, individual parcels may remain graded but undeveloped for extended periods of time, exposing soils to potential wind and water erosion. As discussed above, soil erosion can result in sedimentation of downstream drainages, including the waterbodies listed in Table 4.9-2. In the absence of interim soil stabilization measures, impacts are considered potentially significant. **Mitigation Measure (MM) HYD-1** would require the implementation of interim soil stabilization measures, ensuring effective control of potential soil erosion. With the implementation of **MM-HYD-1**, Campus Development construction impacts to surface water quality would be **less than significant with mitigation incorporated**.

Operations

Once operational, the Campus Development would represent an increase in impervious surfaces associated with increased industrial, mixed use, and business park development. The Master Project Specific Water Quality Management Plan, Master Meridian West Campus Upper Plateau (Appendix K-2) assumed that the proposed lots for development would be 90% impervious. With the exception of proposed industrial Buildings B and C discussed below, the net loss or gain in impervious surfaces as a result of implementation of the Project is indeterminate as there are currently no proposed site plans for the remaining lots within the Campus Development. It can be assumed that urban land uses, including impervious surfaces such as roads, parking lots, and buildings, would be a source of pollution

from incidental spills of vehicle oils and other chemicals that can be conveyed by storm and landscape irrigation flows. The impervious surfaces would prevent polluted surface waters from absorbing into the ground surface.

The on-site watersheds following grading are depicted on Figure 4.9-3, Proposed Project Site and Watersheds. During storm events, pollutants from paved areas lacking in proper stormwater controls and BMPs could enter the municipal storm drain system, before eventually being discharged to downstream drainages and ultimately the Santa Ana River. The majority of pollutants entering the storm drain system in this manner would be dust, litter, and possibly residual petroleum products (e.g., motor oil, gasoline, diesel fuel). Certain metals, along with nutrients and pesticides from landscape areas, can also be present in stormwater runoff. 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.

As previously discussed, design, construction, and operation of projects in Riverside County must be completed in accordance with the NPDES MS4 permit and the Design Handbook for Low Impact Development Best Management Practices (County of Riverside 2011), with the goal of reducing the number of pollutants in stormwater and urban runoff. However, March JPA is not a Co-Permittee of (and is not subject to) the Riverside County MS4 Permit. The March JPA WQMP Guidance Document (March JPA 2008) is used by March JPA as a guidance document to help establish consistency with the County of Riverside MS4 permit, as well as other agencies, including the EPA, U.S. Fish and Wildlife Services, Santa Ana RWQCB, and the County of Riverside. Pursuant to the March JPA WQMP Guidance Document, projects must incorporate infiltration or harvest and use BMPs unless it can be shown that those BMPs are infeasible. Based on the Master Project Specific Water Quality Management Plan, Master Meridian West Campus Upper Plateau document (Appendix K-2), the shallow soils/alluvium/colluvium and underlying granitic bedrock underlying the Project site would not allow for infiltration BMPs. In addition, as reclaimed water would be used for the nonpotable water demands for the Campus Development, harvest and use BMPs were additionally determined to not be feasible. As a result, LID bioretention BMPs would be constructed for proposed roadways (Appendix K-2) and Buildings B and C (Appendices K-3 and K-4).

However, in the absence of parcel-specific WQMPs for the remaining parcels (other than Buildings B and C), water quality impacts are considered potentially significant. **MM-HYD-2** would require the development and implementation of lot-specific WQMPs with post-construction LID BMPs, ensuring effective control of incidental releases to the environment of pollutants of concern associated with Campus Development land uses, such as sediment, oil and grease, nutrients, heavy metals, and certain pesticides. Similar to that described for the proposed roadways (Appendix K-2) and Buildings B and C (Appendices K-3 and K-4), **MM-HYD-2** would require installation of proprietary biotreatment units (i.e., Modular Wetland Systems), which would be located downstream of each detention basin. The biotreatment units would be designed to capture and treat stormwater pollutants, consistent with commercial/industrial developments and associated parking lots, and including oil, grease, metals, trash, and debris. Implementation of **MM-HYD-2** would reduce the Campus Development's operational impacts to surface water quality to **less than significant with mitigation.**

Industrial Building B

The Building B development would consist of construction of one approximate 1,250,000-square foot industrial building, paved parking areas, drive aisles, utilities, and associated landscape areas on a 59.61-acre Industrial parcel. Based on the Project Specific Water Quality Management Plan, Addendum to Master Meridian West Campus Upper Plateau WQMP, Meridian Park South Building B (Appendix K-3) and the Preliminary Hydrology Study for Meridian Park Upper Plateau - Building B (Appendix K-5), three subwatersheds (i.e., Watersheds A, B, and C) would be created on site (Figure 4.9-4, Proposed Building B Drainage Plan). Stormwater runoff from each subwatershed

would drain to underground detention basins, consisting of 60-inch diameter storm drain pipes. Proprietary biotreatment units (i.e., Modular Wetland Systems) would be located downstream of each detention basin, as infiltration is not feasible at the site. The biotreatment units would be designed to capture and treat stormwater pollutants, consistent with commercial/industrial developments and associated parking lots, and including oil, grease, metals, trash, and debris.

The modular wetland systems for Watersheds A, B, and C would each have volumes of 45,000 cubic feet. The modular wetland systems have medium to high removal efficiency for the pollutants of concern and have been accepted by the March JPA for biofiltration on other projects in the Meridian Park development. Each biotreatment unit would be sized to hold the Design Capture Volume, which for the Santa Ana Watershed is the runoff flow rate resulting from a design rainfall intensity of 0.2 inches per hour (RCFCWCD 2011); the 2-year, 24-hour storm volume; and the 100-year storm volume.

Stormwater flows greater than the water quality Design Capture Volume would bypass the detention/treatment system at the reverse parkway drains, via a bypass system, and would continue down the roadway gutter to larger flow catch basins on the streets. All runoff would continue to flow to the same respective outlets compared to the existing conditions, as further explained in Threshold HYD-3. Watersheds A and B would outlet via pipe to the existing storm drain lateral located at the northwest corner of the site. Watershed C would connect to the existing 24-inch public storm drain under Airman Drive (Figure 3-7D, Utility Extensions – Storm Drains, in Chapter 3, Project Description, of this EIR). This public storm drain outlets near Moray Court and flows into an existing 72-inch storm drain, which flows off site through an existing residential development, before flowing northwest through a creek towards Mary Street Dam. Overflow from this dam flows to the Santa Ana River.

Implementation of BMPs included in the WQMP would address water quality concerns during Building B operations, such as the inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); improper management of hazardous materials; trash and debris; and improper management of portable restroom facilities (e.g., regular service). In accordance with the CALGreen requirements, source controls to improve water quality would be provided for outdoor material storage areas, outdoor trash storage/waste handling areas, outdoor loading/unloading dock areas, and building materials areas. Source controls would also include storm drain messages and signage and beneficial landscape irrigation practices.

In accordance with the Building B WQMP, the Project applicant would periodically verify that stormwater BMPs are maintained and are continuing to operate as designed. The Building B WQMP also requires the applicant to finance and implement facility maintenance in perpetuity, including replacement cost, as well as prepare a detailed Stormwater BMP Operation and Maintenance Plan that establishes a maintenance schedule for each of the stormwater BMPs constructed on site. The Operation and Maintenance Plan for the Building B parcel would be similar to that described below for the proposed roadways and landscaping and would include maintenance requirements and inspection frequency of storm drains, landscaping, detention tanks, and biotreatment units collecting stormwater from the parcel. An agreement would be recorded with March JPA indicating that the BMPs would be maintained as outlined in the Stormwater BMP Operation and Maintenance Plan. The Building B WQMP (Appendix K-3) has been prepared as an addendum to the Master Meridian West Campus Upper Plateau WQMP (Appendix K-2) and is consistent with the design and long-term requirements of that master document.

Industrial Building C

The Building C development would consist of construction of one approximate 587,000-square foot industrial building, paved parking areas, drive aisles, utilities, and associated landscape areas on a 27.58-acre Industrial

parcel. Based on the Project Specific Water Quality Management Plan, Addendum to Master Meridian West Campus Upper Plateau WQMP, Meridian Park South Building C (Appendix K-4) and the Preliminary Hydrology Study for Meridian Park Upper Plateau - Building C (Appendix K-6), most of the stormwater runoff would drain to an underground detention basin, consisting of 60-inch diameter storm drain pipes (Figure 4.9-5, Proposed Building C Drainage Plan). Other areas were designed to be self-treating/self-retaining to the extent possible. A proprietary biotreatment unit (i.e., Modular Wetland System) would be located downstream of the detention basin, as infiltration is not feasible at the site. As described for the Building B site, the biotreatment unit, which is 48,000 cubic feet, has been sized to hold the Design Capture Volume and designed to capture and treat stormwater pollutants consistent with commercial/industrial developments and associated parking lots, including oil, grease, metals, trash, and debris.

The biotreatment unit would outlet via pipe to an existing storm drain lateral located at the northeast corner of the site. This existing storm drain pipe outlets into undeveloped terrain, where it bypasses an existing development to the northeast and continues to flow towards the southwest corner of Meridian Parkway and Alessandro Boulevard. From that point, stormwater flows into the North Detention Basin (Figure 3-7D), which was constructed as part of the first phase of the Meridian Business Park. Drainage from the detention basin flows through Sycamore Canyon Wilderness Park, to Sycamore Dam and eventually the Santa Ana River.

In accordance with the Building C WQMP, the Project applicant would periodically verify that stormwater BMPs are maintained and are continuing to operate as designed. The Building B WQMP also requires the applicant to finance and implement facility maintenance in perpetuity, including replacement cost, as well as prepare a detailed Stormwater BMP Operation and Maintenance Plan that establishes a maintenance schedule for each of the stormwater BMPs constructed on site. The Operation and Maintenance Plan for the Building C parcel would be similar to that described below for the proposed roadways and landscaping and would include maintenance requirements and inspection frequency of storm drains, landscaping, detention tanks, and biotreatment units collecting stormwater from the parcel. An agreement would be recorded with March JPA indicating that the BMPs would be maintained as outlined in the Stormwater BMP Operation and Maintenance Plan. The Building C WQMP (Appendix K-4) has been prepared as an addendum to the Master Meridian West Campus Upper Plateau WQMP (Appendix K-2) and is consistent with the design and long-term requirements of that master document.

Conclusion

March JPA is not a Co-Permittee of (and is not subject to) the Riverside County MS4 Permit. However, the WQMP Document is used by March JPA as a guidance document to help establish consistency with other agencies. Compliance with the March JPA WQMP Guidance Document (March JPA 2008) meets the intent of the County of Riverside MS4 Permit, which is implemented throughout Riverside County. Compliance with the WQMP Document, as well as implementation of a site-specific SWPPP and LID features, would ensure that degradation of water quality (surface and ground) would remain minimal in the Campus Development area and that the proposed Project would meet all waste discharge requirements.

With implementation of their respective WQMPs, which include LID BMPs, industrial Buildings B and C parcels would be in compliance with the March JPA WQMP Guidance Document (March JPA 2008), and operations would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality. For the remaining parcels within the Campus Development, the implementation of **MM-HYD-2** would reduce potential impacts to surface water or groundwater quality to **less than significant with mitigation incorporated**.

Park

Construction

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multi-use sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. Similar to the Campus Development, grading and construction of the Park would result in soil disturbance, which could result in potential short-term soil erosion. In addition, grading and construction could result in incidental spills of petroleum products and hazardous materials from construction equipment, which in turn could result in adverse impacts to the water quality of downstream drainages and water bodies. However, Park construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. The SWPPP would describe BMPs the discharger would use to protect stormwater runoff, including erosion-induced siltation of downstream drainages and incidental spills of petroleum products from construction equipment. The final Park design will not be determined until after the updated Parks Needs Assessment Report is completed. The Park site may remain graded but undeveloped for an extended period of time, exposing soils to potential wind and water erosion. As discussed above, soil erosion can result in sedimentation of downstream drainages, including the waterbodies listed in Table 4.9-2. In the absence of interim soil stabilization measures, impacts are considered potentially significant. **MM-HYD-1** would require the implementation of interim soil stabilization measures, ensuring effective control of potential soil erosion. With the implementation of the SWPPP BMPs and **MM-HYD-1**, impacts from the Park construction would be **less than significant with mitigation incorporated**.

Operations

As discussed in Section 4.8, Hazards and Hazardous Materials, very limited use of hazardous materials such as pesticides and herbicides could be part of Park maintenance activities. In the event these materials are improperly stored, used, or disposed of, incidental spills could occur, resulting in adverse impacts to surface water quality of downstream drainages and water bodies. However, storage, use, and disposal of these chemicals would be subject to existing regulatory requirements, such as secondary containment and use of absorbent pads in the event of a small spill. All hazardous materials are required to be stored and handled according to manufacturer's directions and local, state and federal regulations, including the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in CCR Title 22. As a result, Park operations would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality. Impacts would be **less than significant**, and no mitigation is required.

Infrastructure Improvements

Construction

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, and the construction of a new 0.5 million gallon (MG) reclaimed water tank, electrical substation, and sewer lift station. Similar to the Campus Development, grading and construction would result in soil disturbance, which could result in potential short-term soil erosion. In addition, grading and construction could result in incidental spills of petroleum products and hazardous materials from construction equipment, which in turn could result in adverse impacts to the water quality of downstream drainages and water bodies. However,

public facilities construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. The development of the electrical substation and sewer lift station will be determined by the utilities involved. The Public Facility parcels may remain graded but undeveloped for an extended period of time, exposing soils to potential wind and water erosion. As discussed above, soil erosion can result in sedimentation of downstream drainages, including the waterbodies listed in Table 4.9-2. In the absence of interim soil stabilization measures, impacts are considered potentially significant. **MM-HYD-1** would require the implementation of interim soil stabilization measures, ensuring effective control of potential soil erosion.

With implementation of SWPPP-mandated BMPs and **MM-HYD-1**, infrastructure construction would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality. Impacts would be **less than significant with mitigation incorporated**.

Operations

Roadways

For the proposed roadways constructed in the Specific Plan Area, based on the Master Project Specific Water Quality Management Plan, Master Meridian West Campus Upper Plateau (Appendix K-2) and the Preliminary Hydrology Study for Meridian Park Upper Plateau (Appendix K-1), a portion of the runoff (i.e., the water quality Design Capture Volume) would be routed to belowground detention tanks located within the landscape easements adjacent to the right-of-way. Reversed curb outlets located at the curb flow line would allow storm runoff to enter into the proposed earthen swale within the landscape easement that contains 12-inch atrium grates connected to each detention tank. The detention tanks are sized to hold the water quality Design Capture Volume, which for the Santa Ana Watershed is the runoff flow rate resulting from a design rainfall intensity of 0.2 inches per hour (RCFCWCD 2011); the 2-year, 24-hour storm volume; and the 100-year storm volume. An estimated conservative volume of 6,000 cubic feet per acre was used to meet this criterion.

All detention tanks would include 2-inch-diameter drain lines, leading to a 6-inch-diameter to 12-inch-diameter storm drain line, followed by proposed modular wetland biotreatment units. The modular wetland units are sized to treat the water quality Design Capture Volume and draw down the tanks within 48 hours. The modular wetland systems have medium to high removal efficiency for the pollutants of concern and have been accepted by the March JPA for biofiltration on other projects in the Meridian Park development. Stormwater flows greater than the water quality Design Capture Volume would bypass the detention/treatment system at the reverse parkway drains, via a bypass system, and would continue down the roadway gutter to larger flow catch basins on the streets. All runoff would continue to flow to the same respective outlets compared to the existing conditions as further explained in Threshold HYD-3 (Appendices K-1 and K-2).

For the roadways, in accordance with the WQMP, the Project applicant would periodically verify that stormwater BMPs are maintained and are continuing to operate as designed. The WQMP also requires the applicant to finance and implement facility maintenance in perpetuity, including replacement cost, as well as prepare a detailed Stormwater BMP Operation and Maintenance Plan that establishes a maintenance schedule for each of the stormwater BMPs constructed on site. The Operation and Maintenance Plan for the public streets, which is included in Appendix 9, O&M, of Appendix K-2 of this EIR, would also require the applicant to verify that that treatment BMPs are being adequately maintained and the report results of the BMP inspections are sent to the RWQCB once a year. The Operations and Maintenance Plan includes maintenance requirements and inspection frequency of storm

drains, parkway drains, landscaping, detention tanks, and biotreatment units collecting stormwater from Barton Street, Arclight Drive, Cactus Avenue, Bunker Hill Drive, Airman Drive, Linebacker Drive, and Brown Street.

Public Facilities

As discussed in Section 4.8, very limited use of hazardous materials such as cleaning supplies and solvents could be part of maintenance activities at the water tank, sewer lift station, and electrical substation, but would be subject to existing regulatory requirements that would limit the potential for spills of hazardous materials into the environment and adverse water quality impacts to downstream drainages and water bodies. Storage, use, and disposal of these chemicals would be subject to existing regulatory requirements, such as secondary containment and use of absorbent pads in the event of a small spill. All hazardous materials are required to be stored and handled according to manufacturer's directions and local, state and federal regulations, including the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in CCR Title 22.

However, WQMPs have not been completed for these proposed Public Facility components. Based on the March JPA WQMP (2008), a WQMP is required for proposed industrial and commercial developments of 100,000 square feet or more. The sewer lift station would be on a 1.74-acre parcel; the electrical substation would be on a 1.10-acre parcel; and the water tank is on a 2.87-acre parcel. The final design of these facilities has not been determined; however, 1.0 acre is equivalent to 43,560 square feet. In the absence of parcel-specific WQMPs for these infrastructure parcels, water quality impacts are considered potentially significant. **MM-HYD-2** would require the development and implementation of parcel-specific WQMPs with post-construction LID BMPs, ensuring effective control of incidental releases to the environment of pollutants of concern associated with infrastructure land uses, such as sediment, oil and grease, nutrients, heavy metals, and certain pesticides. Implementation of **MM-HYD-2** would reduce the infrastructure operational impacts to surface water quality to **less than significant with mitigation incorporated.**

Conservation Easement

The developer and the March JPA propose to establish a 445.43-acre Conservation Easement, which would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. As no physical alteration to the Conservation Easement would occur, and hazardous materials would not be stored or used within the Conservation Easement, there would be **no impacts** with respect to potential adverse water quality impacts.

Threshold HYD-2. ***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 – Specific Plan Area

Campus Development

Although previously disturbed during grading and construction for the former ordnance storage area, the Campus Development site is predominantly undeveloped and unpaved. Soils within the Campus Development site predominantly consist of shallow topsoil, colluvium, younger alluvium, and artificial fill underlain by granitic bedrock. Campus Development would increase the amount of impervious surfaces by approximately 90%, thus potentially preventing groundwater recharge. However, a 2021 geotechnical investigation completed for the Campus Development

encountered localized fracture groundwater at a depth of 48 feet in only one of six borings. Soils within the area are classified as soil type C, which is defined as soils having slow infiltration rates when thoroughly wetted; consisting of silty-loam soils with a layer that impedes the downward movement of water; or soils with moderately fine to fine texture. These soils in turn are underlain by relatively impermeable granitic (i.e., tonalite) bedrock (Appendix G). Based on the Master Project Specific Water Quality Management Plan, Master Meridian West Campus Upper Plateau (Appendix K-2), the shallow soils/alluvium/colluvium and underlying granitic bedrock underlying the Campus Development site (including proposed industrial Buildings B and C) would not allow for infiltration BMPs. Similarly, soils and geologic units underlying the Project site are not conducive to substantial groundwater recharge. As a result, the proposed Campus Development would not substantially interfere with groundwater recharge, impacts would be **less than significant**, and no additional mitigation is required.

Park

The proposed Park would include two small parking lots, restrooms, and a playground, resulting in limited areas of impervious surfaces. Regardless of these limited areas of impervious surfaces, as described for Campus Development, the Park area is not conducive to groundwater recharge. As a result, the proposed Park would not substantially interfere with groundwater recharge, impacts would be **less than significant**, and no additional mitigation is required.

Infrastructure Improvements

The proposed infrastructure improvements would include a new water tank, electrical substation, sewer lift station, and roadway network, each of which would result in limited areas of impervious surfaces. Regardless of these limited areas of impervious surfaces, as described for Campus Development, the Project area is not conducive to groundwater recharge. As a result, the proposed infrastructure improvements would not substantially interfere with groundwater recharge, impacts would be **less than significant**, and no additional mitigation is required.

Groundwater Recharge – Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to groundwater recharge.

Groundwater Supply – Specific Plan Area

Campus Development

Construction

Grading and construction for the Campus Development would include spraying with water trucks for soil compaction and dust suppression. Water would be provided by WMWD for such purposes. The water demand would be nominal in comparison to Campus Development operations, as described below. Because construction would not occur simultaneously with operations, there would be no increase in the annual water demand, over that described below for operations. As a result, Campus Development construction would not substantially decrease groundwater supplies such that the Project may impede sustainable groundwater management of the basin. Impacts would be **less than significant**, and no mitigation is required.

Operation

Water Supply Overview

As required by the California Urban Water Management Planning Act, WMWD has prepared a 2020 UWMP for its service area, including the Project site. The Campus Development water demands were not specifically accounted for in the UWMP; however, the overall projected demands for the land use were accounted for by population growth. In addition, in accordance with SB 610, a WSA was completed on February 16, 2022 specifically for the proposed Specific Plan Area (Appendix O). The water demand in the WSA was determined using Southern California Association of Governments (SCAG) population projections. Because the Campus Development is an industrial/mixed use retail/business park, rather than residential, the use of population projections rather than land use is appropriate. In addition, the WSA provided a conservative water demand estimate by assuming all potable water supply, as originally it was not evident that reclaimed water would be available for the development. Based on the WSA, the SCAG data did not specifically reference the Project; however, the SCAG data assumed an annual population growth rate within WMWD's service area at an average of 2.2% through 2045. It is customary for WSAs to use generalized projected population growth without specifying any given project, in demonstrating adequacy of water supplies.

As previously discussed, the retail water agencies within WMWD's general service area boundary use a variety of local groundwater, surface water, and recycled/reclaimed water sources to meet customer demands. In addition, WMWD provides desalinated groundwater and imported water as supplemental supplies to its wholesale customers. To reduce its dependency on imported water, WMWD has aggressively sought to develop and/or expand local sources of water supply for use under both non-emergency and emergency conditions. In 2019, WMWD imported 6,618 acre-feet of groundwater from the Bunker Hill Basin. WMWD's groundwater supply in this region is received from four primary groundwater basins, including the Riverside-Arlington Basin, the Temecula-Murrieta Basin, the San Bernardino Basin Area, and the Chino Basin. Each of these basins is either adjudicated and managed by a Watermaster or managed by a Groundwater Sustainability Agency to ensure long term reliable supply, even in dry years.

Project Water Demand

According to the Project-specific WSA, water demand for the proposed Specific Plan Area was based on information submitted by March JPA and the Project applicant. Based on this information, WMWD estimates that the Project's water demand is approximately 382.47 AFY. This includes an indoor potable water demand of approximately 124.33 AFY and an outdoor (potable or reclaimed/recycled) landscaping water demand of approximately 258.14 AFY. Indoor water demand was calculated using the total estimated number of new employees (i.e., 2,597 employees who would occupy the West Campus Upper Plateau Specific Plan area), multiplied by 60 gallons per day, which is appropriate for the specified industrial/commercial land use type, based on existing water use at the nearby Meridian Business Park. To determine the projected annual indoor demand, the daily demand was multiplied by 260 working days to reach the total projected indoor water demand associated with Project. Total projected annual indoor water demand is 124.33 AFY (Appendix O).

The Specific Plan Area landscape demand was determined using the California Water Efficient Landscape Worksheet, which uses landscape area (4,700,321 square feet), irrigation method, and local evapotranspiration to determine efficient water use. The estimated landscape water demand according to the California Water Efficient Landscape Worksheet is 258.14 AFY (Appendix O).

Water Supply Analysis

The 2020 WMWD UWMP has planned for growth within the District's service area over the next 20 years. The WMWD has made an allowance for future demand estimates based on historical growth rates in the service area. Based on these projections, it would appear that the WMWD has adequately made allowance for retail water supply-demand increases for both domestic and commercial water supply, including groundwater, over the next 20 years. According to Table 5-3, Projected Water Use, of the WMWD 2020 UWMP, WMWD projects an increase in potable water demand of 16,578 AFY between 2025 (68,426 AFY) and 2045 (85,004 AFY) (WMWD 2021). the water demand from the proposed Project (382.47 AFY) would represent approximately 2.3% of this projected growth, which would not be considered substantial (Appendix O).

As previously discussed, recycled/reclaimed water would be provided to the Campus Development site for irrigation purposes so as to reduce the dependence and reliance upon potable water for landscaping and irrigation. Existing 12-inch reclaimed water lines are located within the Cactus Avenue right-of-way to the east of the Campus Development (Figure 3-7C, Utility Extensions – Reclaimed Water). The proposed reclaimed water system would connect to the existing Cactus Avenue service line, which in turn will connect to the existing reclaimed water facilities maintained by the WMWD. In addition, a new 0.5 MG reclaimed water tank would be installed south of the Project site, at the Orangecrest site. However, the Project-specific WSA (Appendix O) conservatively assumes that potable water would be used for both indoor and landscaping purposes. As a result, the reclaimed water would contribute to a reduction in water supply impacts.

The Project-specific WSA (Appendix O) provides a detailed assessment of whether the total projected water supplies available to the WMWD during normal, single-dry, and multiple dry years, over the next 20-year period are sufficient to meet the projected water demand associated with the proposed Campus Development, in addition to existing and planned future uses. As a conservative measure, this WSA specifically analyzes how WMWD would address potential shortfalls in the availability and reliability of imported water supplies in demonstrating that sufficient water supplies are available to the WMWD to serve the proposed Project. Any potential shortfalls in the availability of imported water supplies would place more reliance on groundwater supplies.

Based on the WSA analysis, the projected water demand of 382.47 AFY represents about 1.8% of WMWD's retail total water demand of Calendar Year 2020. Based on the information and analysis contained in this WSA, WMWD concludes that the total projected water supplies available to the WMWD during normal, single-dry, and multiple-dry years throughout the next 20-year period are sufficient to meet the projected water demands of the proposed Project, in addition to WMWD's existing and planned future uses, in accordance with the standards set forth by SB 610. (See Section 4.17, Utilities and Service Systems, of this Draft EIR for additional detail regarding water supplies.)

The WMWD 2020 UWMP also includes a Water Supply Shortage Contingency Plan, which addresses the stages of response to a water shortage, such as a drought, that occurs over a period of time, as well as catastrophic supply interruptions that occur suddenly. The primary objective of the water shortage contingency plan is to ensure that WMWD has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions.

Furthermore, WMWD has planned projects aimed at meeting increase future water demands within its service area. These plans include increasing the groundwater recharge capabilities of the Arlington sub-basin, increasing the use of groundwater banking programs, increasing the use of desalinated water, and conjunctive use programs designed to increase regional water reliability (WMWD 2021). When coupled with regional groundwater management plans

and the regulatory bindings of the basins, these projects would ensure that the proposed Campus Development, as well as future regional projects, would not substantially decrease groundwater supplies or impede sustainable management of the relevant groundwater basins. As a result, groundwater supply impacts associated with the proposed Project would be **less than significant,** and no mitigation is required.

Park

Construction

Grading and construction for the Park would include spraying with water trucks for soil compaction and dust suppression. The water supply would be provided by WMWD for such purposes. The water demand would be nominal in comparison to Campus Development operations, as described above. Because construction would not occur simultaneously with operations, there would be no increase in the annual water demand, over that described for operations. As a result, Park grading and construction would not substantially decrease groundwater supplies such that the Project may impede sustainable groundwater management of the basin. Impacts would be **less than significant**, and no mitigation is required.

Operation

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multi-use sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users.

Reclaimed water would be used for Park irrigation to reduce the dependence and reliance upon potable water. As described for the Campus Development, the proposed reclaimed water system would connect to the existing Cactus Avenue service line, which in turn will connect to the existing reclaimed water facilities maintained by the WMWD. In addition, a new 0.5 MG reclaimed water tank would be installed south of the Project site, at the Orangecrest site. The Project-specific WSA (Appendix O) considered water demand associated with the Park. Based on the water supply and demand analysis provided above for the Campus Development, the Project (including the proposed Park) would not substantially decrease groundwater supplies or impede sustainable management of the relevant groundwater basins. As a result, groundwater supply impacts associated with the proposed Park would be **less than significant,** and no mitigation is required.

Infrastructure Improvements

Construction

Grading and construction for the proposed sewer lift station, electrical substation, water tank, and roadway network would include spraying with water trucks for soil compaction and dust suppression. The water supply would be provided by WMWD for such purposes. The water demand would be nominal in comparison to Campus Development operations, as described above. Because construction would not occur simultaneously with operations, there would be no increase in the annual water demand, over that described for operations. As a result, infrastructure grading and construction would not substantially decrease groundwater supplies such that the Project may impede sustainable groundwater management of the basin. Impacts would be **less than significant**, and no mitigation is required.

Operation

Operation of the proposed infrastructure improvements would not require a water supply in excess of that considered for the Campus Development and proposed Park in the WSA. Therefore, **no impacts** would occur with respect to groundwater supply.

Groundwater Supply – Conservation Easement

The March JPA and developer propose to place the Conservation Easement under a conservation easement in compliance with the CBD Settlement Agreement (Appendix S). As no groundwater would be withdrawn in association with the Conservation Easement, there would be ***no impact*** with respect to groundwater supply.

Threshold HYD-3. ***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:***

a) Result in substantial erosion or siltation on- or off-site?

Specific Plan Area

Campus Development

Construction

Grading for the Campus Development would result in relatively flat building pads with intervening engineered slopes. As a result, the existing drainage pattern of the Campus Development site would be altered. Grading would be completed in accordance with an approved grading plan, which would include permanent drainages to properly divert stormwater runoff.

As discussed above for Threshold HYD-1, construction is estimated to begin in June 2023 and last for approximately 4.5 years. Based on this schedule, individual parcels may remain graded but undeveloped for extended periods of time, exposing soils to potential wind and water erosion. Soil erosion can result in sedimentation of downstream drainages, including the waterbodies listed in Table 4.9-2. In the absence of interim soil stabilization measures, impacts are considered potentially significant. **MM-HYD-1** would require the implementation of interim soil stabilization measures, ensuring effective control of potential soil erosion. With the implementation of **MM-HYD-1**, impacts to surface water quality would be **less than significant with mitigation incorporated**.

Operation

As previously discussed, because the Campus Development is located within an HCOC-applicable area, the Project would be required to detain the 100-year, 24-hour storm runoff to discharge rates within 110% of existing conditions at each Project discharge point. However, the Project has been designed such that post-construction runoff rates would be less than or equal to existing conditions. For the Project master hydrology analysis (Appendix K-1), it was assumed that post-development conditions would include 90% impervious surfaces within the Campus Development. Runoff from finished lots would flow onto adjacent proposed roadways, which in turn would be routed to detention tanks, located within the landscape easements adjacent to the right-of-way. These tanks would be sized to hold the respective 100-year storm volumes, which would be released over 48 hours at rates less than or equal to existing conditions. An estimated conservative volume of 6,000 cubic feet/acre was used to meet this criterion. All detention

tanks would include 2-inch-diameter drain lines, leading to a 6-inch-diameter to 12-inch-diameter storm drain line, and then to proposed modular wetland biotreatment units. The wetland biotreatment units would treat the water quality Design Capture Volume and the 2-year, 24-hour storm volume. The 2-year, 24-hour storm volume would be detained and discharged to the existing drainage system at runoff rates less than or equal to existing rates, as determined by measured pre-development flows at Project discharge points (Appendices K-1 and K-2).For the purposes of the Project hydrology analysis, it was assumed that all detention basins off site and future detention basins on site are full (i.e., would not be capable of accepting additional runoff), and all runoff would be flowing directly to both public street catch basins, as well as laterals collecting runoff for each parcel. Stormwater from proposed storm drains would continue to flow to the same areas as under existing conditions (Figure 4.9-3).

However, in the absence of lot specific hydrologic analyses for the remaining parcels (other than Buildings B and C), impacts would be potentially significant. **MM-HYD-3** requires lot-specific hydrology/drainage reports that include measured pre-development flows and demonstrating that stormwater runoff flow rate, associated with specific lot development, would be less than or equal to existing stormwater runoff conditions, to prevent excessive on- and off-site runoff and associated erosive scour.

Building B

The proposed Building B development would consist of the construction of a 1,250,000 square foot warehouse, including parking, drive aisle, and landscaped areas on a 59.61-acre Industrial parcel. The site would be divided into three separate watersheds as a result of grading (Figure 4.9-4). Each watershed would feature private storm drain lines, collecting runoff from the surrounding site, which would flow into respective detention basins. Diversion structures that feature a weir with an orifice placed at a calculated height would be installed downstream of each detention system. This design would allow the design capture volume, as calculated per March JPA/Riverside County WQMP requirements, to flow to a modular wetland unit, while allowing higher flows to bypass the modular wetland unit system, while the weir and orifice hold back both the 2-year and 100-year storm, to existing conditions. Watersheds A and B would flow to the existing 24-inch lateral serving the on-site detention basin (Figure 3-7D). Watershed C would require an additional storm drain connection on Airman Drive to the 24-inch public storm drain, to limit the amount of storm drainpipe on site.

Tables 4.9-3 and 4.9-4 demonstrate that the proposed detention basins for Watersheds A, B, and C would reduce post-construction stormwater flow rates to less than existing conditions, for the 2-year, 24-hour storm and 100-year, 24-hour storm, respectively. The total proposed flow rate would increase from the existing conditions prior to reaching the detention system, as a result of increased impervious surfaces.

Table 4.9-3. 2-Year 24-Hour Stormwater Flows

Watershed	Existing Flowrate (cfs)	Proposed Flow Rate (cfs)**	Volume to be Detained (cf)	Flowrate after Detention (cfs)
A	*	2.440	46,474	0.274
B	*	4.100	82,292	0.479
C	*	4.260	85,086	0.508
Total	**1.279**	**10.800**	**213,852**	**1.261**

Source: Appendix K-5.
Notes:
* Existing conditions includes only one watershed
** Flow rate pre-detention
Cfs – cubic feet per second
Cf – cubic feet

Table 4.9-4. 100-Year 24-Hour Stormwater Flows

Watershed	Existing Flowrate (cfs)	Proposed Flow Rate (cfs)**	Volume to be Detained (cf)	Flowrate after Detention (cfs)
A	*	6.720	73,478	5.484
B	*	10.350	109,128	9.393
C	*	10.760	113,745	9.811
Total	**24.721**	**27.830**	**296,351**	**24.688**

Source: Appendix K-5.
Notes:
* Existing conditions includes only one watershed
** Flow rate pre-detention
cfs – cubic feet per second
cf – cubic feet

As illustrated in Tables 4.9-3 and 4.9-4, post-construction runoff velocities would be less than under existing conditions, thus minimizing the potential for on- or off-site erosive scour of unpaved areas and associated siltation of downstream water bodies. As a result, operation of industrial Building B would not 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 result in substantial erosion or siltation on or off site.

Building C

The proposed Building C development would consist of the construction of a 587,000 square foot warehouse, including parking, drive aisle, and landscaped areas on a 27.49-acre Industrial parcel. Similar to existing conditions, the site would remain as one watershed following construction (Figure 4.9-5). The site would feature private storm drain lines, collecting runoff from the surrounding site, which would flow into a detention basin. Diversion structures that feature a weir with an orifice placed at a calculated height would be installed downstream of the detention system. This design would allow the design capture volume, as calculated per March JPA/Riverside County WQMP requirements, to flow to a modular wetland unit, while allowing higher flows to bypass modular wetland unit system, while the weir and orifice hold back both the 2-year and 100-year storm, to existing conditions. Post-construction stormwater runoff would flow to the existing 36-inch lateral serving the on-site detention basin.

Tables 4.9-5 and 4.9-6 demonstrate that the proposed detention basin for Building C would reduce post-construction stormwater flow rates to less than existing conditions, for the 2-year, 24-hour storm and 100-year, 24-hour storm, respectively. The total proposed flow rate would increase from the existing conditions prior to reaching the detention system, as a result of increased impervious surfaces.

Table 4.9-5. 2-Year 24-Hour Stormwater Flows

Existing Flowrate (cfs)	Proposed Flow Rate (cfs)*	Volume to be Detained (cf)	Flowrate after Detention (cfs)
0.598	4.950	99,095	0.597

Source: Appendix K-6.
Notes:
* Flow rate pre-detention
cfs – cubic feet per second
cf – cubic feet

Table 4.9-6. 100-Year 24-Hour Stormwater Flows

Existing Flowrate (cfs)	Proposed Flow Rate (cfs)*	Volume to be Detained (cf)	Flowrate after Detention (cfs)
11.604	12.48	124,190	11.590

Source: Appendix K-6.
Notes:
* Flow rate pre-detention
cfs – cubic feet per second
cf – cubic feet

As illustrated in Tables 4.9-5 and 4.9-6, post-construction runoff velocities would be less than under existing conditions, thus minimizing the potential for on- or off-site erosive scour of unpaved areas and associated siltation of downstream water bodies. As a result, operation of industrial Building C would not 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 result in substantial erosion or siltation on or off site.

Conclusion

As detailed above, the hydrologic analyses for Buildings B and C conclude that post-construction runoff velocities will be less than existing conditions. However, in the absence of hydrologic analyses for the remaining parcels, impacts would be potentially significant. **MM-HYD-3** requires lot-specific hydrology/drainage reports demonstrating that stormwater runoff flow rate, associated with specific lot development, would be less than or equal to existing stormwater runoff conditions, to prevent excessive on- and off-site runoff and associated erosive scour. With the implementation of **MM-HYD-3**, impacts related to increased stormwater runoff would be **less than significant with mitigation incorporated.**

Park

The proposed Project would include two small parking lots, presumably restrooms for the multi-use playing fields, and a playground, resulting in limited areas of impervious surfaces. As a result, very limited runoff would occur subsequent to grading and construction. The Park would be seeded with grasses following grading, thus minimizing the potential for off-site erosive scour and sedimentation of downstream drainages. As a result, the proposed Park would not substantially alter the existing drainage pattern, including through the addition of impervious surfaces, in a manner that would result in substantial erosion or siltation on or off site. Impacts would be **less than significant**, and no additional mitigation is required.

Infrastructure Improvements

As discussed above for the Campus Development, the Preliminary Hydrology Study for Meridian Park Upper Plateau (Appendix K-1) addresses potential hydrologic impacts of the roadway network. The drainage features will ensure runoff from the roadway network does not exceed existing conditions. Similar to Campus Development, grading and construction for the proposed water tank, electrical substation, and sewer lift station would result in increased areas of impervious surfaces, which could increase runoff and cause off-site erosive scour and sedimentation of downstream drainages and water bodies. In the absence of hydrology/drainage analyses demonstrating that post-construction runoff rates would be reduced to less than or equal to existing runoff rates, impacts would be potentially significant. With the implementation of **MM-HYD-3** as described above, impacts related to increased stormwater runoff and erosive scour would be **less than significant with mitigation incorporated.**

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to changes in drainage patterns and increased impervious surfaces.

b) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?

Specific Plan Area

Campus Development

As discussed for Threshold HYD-3a and illustrated in Tables 4.9-3 through 4.9-6, post-construction runoff velocities would be less than under existing conditions for Buildings B and C, thus minimizing the potential for flooding on or off site. As a result, construction and operation of industrial Buildings B and C would not 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 substantially increase the rate or amount of surface runoff and result in flooding on or off site.

However, in the absence of lot specific hydrologic analyses for the remaining Campus Development parcels, impacts would be potentially significant. **MM-HYD-3** requires lot-specific hydrology/drainage reports demonstrating that stormwater runoff flow rate, associated with specific lot development, would be less than or equal to existing stormwater runoff conditions, to prevent excessive on- and off-site runoff and flooding. With the implementation of **MM-HYD-3**, impacts related to increased stormwater runoff would be **less than significant with mitigation incorporated.**

Park

As discussed for Threshold HYD-3a, the proposed Project would include two small parking lots, restrooms, and a playground, resulting in limited areas of impervious surfaces. As a result, very limited runoff would occur subsequent to grading and construction. The Park would be seeded with grasses following grading, thus minimizing the potential for increased off-site runoff and associated flooding. As a result, the proposed Park would not substantially alter the existing drainage pattern, including through the addition of impervious surfaces, in a manner that would result in on- or off-site flooding. Impacts would be **less than significant**, and no additional mitigation is required.

Infrastructure Improvements

As discussed for Threshold HYD-3a, with incorporation of proposed stormwater control features into the Specific Plan Area design, increased impervious surfaces resulting from construction of roadways would not result in increased runoff rates. Although the amount of runoff would increase with increased impervious surfaces, this increase in runoff volumes would be attenuated over time with incorporation of stormwater detention features. Therefore, with no net increase in runoff rates, on- or off-site flooding would not occur as a result of new roadway construction within the Specific Plan Area.

As discussed for Threshold HYD-3a, grading and construction for the proposed water tank, electrical substation, and sewer lift station would result in increased areas of impervious surfaces, which could increase runoff and cause off-site flooding. In the absence of Hydrology/Drainage plans demonstrating that post-construction runoff rates would be reduced to less than or equal to existing runoff rates, impacts would be potentially significant. With the

implementation of **MM-HYD-3**, impacts related to increased stormwater runoff would be **less than significant with mitigation incorporated.**

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to changes in drainage patterns and increased impervious surfaces.

c) 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?

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with seven Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. Industrial and commercial businesses typically store various quantities of hazardous materials and hazardous waste. In the absence of proper storage, use, and disposal practices regarding hazardous materials, accidental and/or incidental spills of these substances could result in polluted runoff. However, as discussed in detail in Section 4.8, hazardous materials and waste would be stored, used, and disposed in accordance with a Hazardous Materials Business Plan and in compliance with all local, state, and federal regulations. Hazardous Materials Business Plans contain basic information about the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state. In the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by California code, facilities are also required to prepare a Risk Management Plan consistent with the California Accidental Release Prevention (CalARP) Program (19 CCR 2735.1 et seq.). The Risk Management Plan provides information about 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. Compliance with these plans would minimize the potential for polluted runoff.

In addition, as discussed for Threshold HYD-3a, with incorporation of proposed stormwater control features into the Project design, increased impervious surfaces resulting from construction Buildings B and C would not result in increased runoff rates. With no net increase in runoff rates and no increase in flooding for these components of the Campus Development, the Project would not substantially alter the existing drainage pattern of the site or area in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. However, in the absence of lot specific hydrologic analyses for the remaining Campus Development parcels, impacts would be potentially significant. **MM-HYD-3** requires detention basins to be constructed on individual lots that are sized to accommodate stormwater runoff, such that flows do not exceed existing conditions, to prevent excessive on- and off-site runoff and flooding. Combined, stormwater control features constructed for each parcel would not only reduce parcel runoff rates but would cumulatively reduce runoff rates from the entire Specific Plan Area to less than or equal to existing stormwater runoff conditions, as measured at each of the individual site watershed discharge locations (see Figure 4.9-3). With the implementation of **MM-HYD-3**, impacts related to increased stormwater runoff would be **less than significant with mitigation incorporated.**

Park

As discussed in Section 4.8, very limited use of hazardous materials such as pesticides and herbicides could be part of Park maintenance activities. In the event these materials are improperly stored, used, or disposed of, incidental spills could occur, resulting in adverse impacts to surface water quality of downstream drainages and water bodies. However, storage, use, and disposal of these chemicals would be subject to existing regulatory requirements, such as secondary containment and use of absorbent pads in the event of a small spill. All hazardous materials are required to be stored and handled according to manufacturer's directions and local, state and federal regulations, including the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in CCR Title 22.

As discussed for Threshold HYD-3a, Park construction would result in limited areas of impervious surfaces. As a result, very limited runoff would occur subsequent to grading and construction. The Park would be seeded with grasses following grading, thus minimizing the potential for increased off-site runoff and associated flooding. As a result, the proposed Park would not substantially alter the existing drainage pattern, including through the addition of or through the addition of impervious surfaces, in a manner which would 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. Impacts would be **less than significant**, and no additional mitigation is required.

Infrastructure Improvements

As discussed in Section 4.8, very limited use of hazardous materials such as cleaning supplies and solvents could be part of maintenance activities at the new water tank, sewer lift station, and electrical substation, but would be subject to existing regulatory requirements that would limit the potential for spills of hazardous materials into the environment and adverse water quality impacts to downstream drainages and water bodies.

In addition, as discussed for Threshold HYD-3a, with incorporation of proposed stormwater control features into the Project design, increased impervious surfaces resulting from construction of proposed roadway network would not result in increased runoff rates. As further discussed for Threshold HYD-3a, grading and construction for the proposed water tank, electrical substation, and sewer lift station would result in increased areas of impervious surfaces, which could increase runoff and cause off-site flooding. In the absence of hydrology/drainage plans demonstrating that post-construction runoff rates would be reduced to less than or equal to existing runoff rates, impacts would be potentially significant. With the implementation of **MM-HYD-3**, impacts related to increased stormwater runoff would be **less than significant with mitigation incorporated.**

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to changes in drainage patterns and increased impervious surfaces.

d) Impede or redirect flood flows?

Specific Plan Area

Campus Development

FEMA has determined that the proposed Campus Development site is located within Zone D, an area with possible, but undetermined flood hazards. However, a site-specific geotechnical evaluation of the Specific Plan Area

(Appendix G) determined that the Campus Development site is not located in a floodplain and that the risk of flooding on site would be very low. As a result, the proposed Campus Development would not impede or redirect flood flows. Impacts would be **less than significant**, and no additional mitigation is required.

Park

Similar to the Campus Development, FEMA has determined that the proposed Park site is located within Zone D, an area with possible, but undetermined flood hazards. However, a site-specific geotechnical evaluation of the Specific Plan Area (Appendix G) determined that the Park site is not located in a floodplain and that the risk of flooding on site would be very low. As a result, the proposed Park would not impede or redirect flood flows. Impacts would be **less than significant**, and no additional mitigation is required.

Infrastructure Improvements

Similar to the Campus Development, FEMA has determined that the proposed infrastructure improvement sites are located within Zone D, an area with possible, but undetermined flood hazards. However, a site-specific geotechnical evaluation of the Specific Plan Area (Appendix G) determined that the infrastructure improvement sites are not located in a floodplain and that the risk of flooding on site would be very low. As a result, the infrastructure improvements would not impede or redirect flood flows. Impacts would be **less than significant**, and no additional mitigation is required.

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to potentially impeding or redirecting flood flows.

Threshold HYD-4. In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to project inundation?

Specific Plan Area

Campus Development

As previously discussed for Threshold HYD-3d, the risk of flooding on site would be very low. The Campus Development site is not located in proximity to the Pacific Ocean and is not located in proximity to a standing body of water. The nearest standing body of water is the Perris Reservoir, located approximately 7 miles to the southeast of the Specific Plan Area. As such, the proposed Campus Development would not be subject to inundation by tsunami or seiche. In addition, the County of Riverside Safety Element (Figure 5, Dam Hazards Inundation), indicates that the Campus Development site is not located within a Dam Hazard Zone. Therefore, flooding impacts, including potential release of pollutants due to project inundation, would be **less than significant**, and no mitigation is required.

Park

Similar to the Campus Development, the Park would not be subject to flooding and would therefore not risk release of pollutants due to project inundation. Impacts would be **less than significant**, and no additional mitigation is required.

Infrastructure Improvements

Similar to the Campus Development, the proposed infrastructure improvements would not be subject to flooding and would therefore not risk release of pollutants due to project inundation. As a result, proposed infrastructure improvements would not impede or redirect flood flows. Impacts would be **less than significant**, and no additional mitigation is required.

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to potential flooding and risk of release of pollutants to the environment.

Threshold HYD-5. Would the Project conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan?

Specific Plan Area

Campus Development

Construction

As described in more detail in Threshold HYD-1, Campus Development grading and construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. The SWPPP would describe BMPs the discharger would use to protect stormwater runoff, including erosion-induced siltation of downstream drainages and incidental spills of petroleum products from construction equipment. However, Campus Development parcels may remain graded but undeveloped for an extended period of time, exposing soils to potential wind and water erosion. As discussed above, soil erosion can result in sedimentation of downstream drainages, including the waterbodies listed in Table 4.9-2. In the absence of interim soil stabilization measures, impacts are considered potentially significant. **MM-HYD-1** would require the implementation of interim soil stabilization measures, ensuring effective control of potential soil erosion. With the implementation of the SWPPP BMPs and **MM-HYD-1**, impacts from Campus Development construction would be **less than significant with mitigation incorporated**.

Operation

As previously discussed for Threshold HYD-1, compliance with the March JPA WQMP Guidance Document, as well as implementation of a site-specific SWPPP, LID features, and WQMP for industrial Buildings B and C would ensure that degradation of water quality (surface water and groundwater) would remain minimal and that the proposed Campus Development would meet all waste discharge requirements and therefore be in compliance with the water quality objectives of the Santa Ana RWQCB Basin Plan. However, in the absence of parcel specific WQMPs for all the parcels (with the exception of industrial Buildings B and C), impacts are considered potentially significant. **MM-HYD-2** would require the development and implementation of lot-specific WQMPs with post-construction LID BMPs, ensuring effective control of incidental releases to the environment of pollutants of concern associated with Campus Development land uses, such as sediment, oil and grease, nutrients, heavy metals, and certain pesticides. With the implementation of **MM-HYD-2**, impacts to surface water or groundwater quality would be **less than significant with mitigation incorporated**.

With respect to groundwater management, no recognized groundwater basin underlies the Campus Development site. WMWD, which would supply potable and non-potable water for the Project, derives groundwater from seven different basins, including the San Bernardino Basin Area, Chino Basin, Riverside-Arlington Basin, Temescal Basin, Bedford-Coldwater Basin, Elsinore Valley Basin, and Temecula Valley Basin. Each of these basins is either adjudicated and managed by a Watermaster or managed by a Groundwater Sustainability Agency to ensure long term reliable supply, even in dry years. As a result, the Project would not conflict with or obstruct the implementation of the Santa Ana RWQCB Basin Plan or any sustainable groundwater management plan. In addition, because the Campus Development would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, impacts would be **less than significant**, and no mitigation is required.

Park

Construction

As described for Campus Development, Park construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. However, the Park site may remain graded but undeveloped for an extended period of time, exposing soils to potential wind and water erosion. In the absence of interim soil stabilization measures, impacts are considered potentially significant. **MM-HYD-1** would require the implementation of interim soil stabilization measures, ensuring effective control of potential soil erosion. With the implementation of the SWPPP BMPs and **MM-HYD-1**, impacts from the Park construction would be **less than significant with mitigation incorporated**.

Operations

As discussed in Threshold HYD-1, very limited use of hazardous materials such as pesticides and herbicides could be part of Park maintenance activities. In the event these materials are improperly stored, used, or disposed of, incidental spills could occur, resulting in adverse impacts to surface water quality of downstream drainages and water bodies. However, storage, use, and disposal of these chemicals would be subject to existing regulatory requirements, such as secondary containment and use of absorbent pads in the event of a small spill. As a result, water quality impacts would be minimized such that the Project would be in compliance with the water quality objectives of the Santa Ana RWQCB Basin Plan. Impacts of Park operations would be **less than significant**, and no mitigation is required.

Similar to that described for Campus Development, no recognized groundwater basin underlies the proposed Park site. WMWD, which would supply potable and non-potable water for the Project, derives groundwater from groundwater basins that are either adjudicated and managed by a Watermaster or managed by a Groundwater Sustainability Agency to ensure long term reliable supply, even in dry years. As a result, the Project would not conflict with or obstruct implementation of the Santa Ana RWQCB Basin Plan or any sustainable groundwater management plan. Impacts would be **less than significant**, and no mitigation is required.

Infrastructure Improvements

Construction

As previously discussed for Threshold HYD-1, compliance with the March JPA WQMP Guidance Document, as well as implementation of a site-specific SWPPP, LID features, and WQMP for the roadway network would ensure that degradation of water quality (surface water and groundwater) would remain minimal and that the proposed Project

would meet all waste discharge requirements and therefore be in compliance with the water quality objectives of the Santa Ana RWQCB Basin Plan. As described for Campus Development, grading and construction for the proposed sewer lift station, water tank, and electrical substation would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. With implementation of SWPPP BMPs, water quality impacts would be minimized such that the Project would be in compliance with the water quality objectives of the Santa Ana RWQCB Basin Plan. However, in the absence of parcel specific WQMPs for the Public Facility parcels, impacts are considered potentially significant. **MM-HYD-2** would require the development and implementation of lot-specific WQMPs with post-construction LID BMPs, ensuring effective control of incidental releases to the environment of pollutants of concern associated with infrastructure improvements, such as sediment, oil and grease, nutrients, heavy metals, and certain pesticides. With the implementation of **MM-HYD-2**, impacts to surface water or groundwater quality would be **less than significant with mitigation incorporated**.

Operations

As discussed in Section 4.8, very limited use of hazardous materials such as cleaning supplies and solvents could be part of maintenance activities at the new water tank, sewer lift station, and electrical substation, but would be subject to existing regulatory requirements that would limit the potential for spills of hazardous materials into the environment and adverse water quality impacts to downstream drainages and water bodies. As a result, new infrastructure operations would not violate any water quality standards and would therefore be in compliance with water quality objectives of the Santa Ana RWQCB Basin Plan. Impacts would be **less than significant**, and no mitigation is required.

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated and no groundwater would be withdrawn in association with the Conservation Easement, there would be **no impact** with respect to obstruction of a water quality control plan or sustainable groundwater management plan.

4.9.5 Mitigation Measures

MM-HYD-1 **Interim Soil Stabilization Plan.** Prior to issuance of a grading permit for the Specific Plan Area, an Interim Soil Stabilization Plan shall be developed to the satisfaction of the March Joint Powers Authority (JPA), detailing measures that will be taken to prevent soil erosion subsequent to grading and prior to construction on individual parcels. Examples of soil stabilization measures include construction of temporary desilting basins, hydroseeding for temporary establishment of grasses, use of natural and/or synthetic soil binders (i.e., tackifiers and soil stabilizers), straw wattle installation at regular intervals across each parcel and around parcel perimeters, and berm construction around the perimeter of each parcel to prevent off-site soil migration. Site monitoring shall be completed every six months and after rainfall events of 1.0 inch or greater to ensure that soil stabilization methods are continuing to be effective. In the event that erosion is observed during monitoring, corrective actions shall be taken immediately to prevent additional erosion. The Interim Soil Stabilization Plan shall be implemented and funded under the supervision of the March JPA.

MM-HYD-2 **Water Quality Management Plan**. Consistent with the Master Project Specific Water Quality Management Plan, Master Meridian West Campus Upper Plateau (Appendix K-2) for the Specific Plan Area, prior to issuance of each building permit, a Water Quality Management Plan (WQMP)

shall be developed, to the satisfaction of the March JPA, for the development proposed as part of the Meridian West Upper Plateau Specific Plan. In accordance with March JPA's guidance, each WQMP shall meet the requirements of the Riverside County Municipal Separate Storm Sewer System (MS4) Permit, as well as the National Pollutant Discharge Elimination System (NPDES) New Development & Redevelopment Guidelines for Projects Under the March Joint Powers Authority, also known as the 2008 March JPA WQMP Guidance Document, such that the WQMP shall demonstrate that post-construction low-impact development (LID) best management practices (BMPs) are incorporated into the specific proposed design and that these features would effectively reduce and/or eliminate water pollution caused by runoff flowing from developed sites into nearby receiving waters. Specifically, proprietary biotreatment units (i.e., Modular Wetland Systems) shall be installed downstream of each detention basin, as infiltration is not feasible at the site. The biotreatment units shall be designed to capture and treat stormwater pollutants, consistent with commercial/industrial developments and associated parking lots, and including oil, grease, metals, trash, and debris. Treatment design shall be finalized as each development is proposed within the Specific Plan. Source control BMPs shall be implemented whenever possible. A long-term maintenance and funding plan shall also be approved by the March JPA as part of each WQMP.

MM-HYD-3 **Hydrology/Drainage Study.** Consistent with the Preliminary Hydrology Study, for: Meridian Park Upper Plateau (Appendix K-1), prior to issuance of each building permit, a Hydrology/Drainage Report shall be developed to the satisfaction of the March Joint Powers Authority, for the development proposed within the West Campus Upper Plateau Specific Plan. The Hydrology/Drainage Report shall demonstrate with the implementation of design features incorporated into each development that stormwater runoff flow rate, associated with specific lot development, would be less than or equal to existing conditions, to prevent on- and off-site runoff and flooding. The Hydrology/Drainage Report shall comply with the 1978 Riverside County Flood Control and Water Conservation District Hydrology Manual for storm drain planning and design calculations. Based on the Hydrology/Drainage Report, detention basins shall be constructed on individual lots that are sized to accommodate stormwater runoff such that flows do not exceed existing conditions.

4.9.6 Level of Significance After Mitigation

Threshold HYD-1. ***Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?***

Implementation of soil stabilization measures, as outlined in **MM-HYD-1,** would ensure effective control of potential soil erosion following grading and prior to construction on individual lots, such that impacts to surface water quality from the Project would be **less than significant after mitigation incorporated**. In addition, incorporation of lot-specific, post-construction LID BMPs, as outlined in **MM-HYD-2**, would ensure effective control of incidental releases to the environment of pollutants of concern associated with proposed Project land uses, such as sediment, oil and grease, nutrients, heavy metals, and certain pesticides, such that water quality impacts from the Project site to receiving waters would be **less than significant after mitigation**.

Threshold HYD-3. *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:*

a) Result in substantial erosion or siltation on or off site;

b) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; or

c) 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?

The completion of lot-specific hydrology/drainage reports, as outlined in **MM-HYD-3**, would prevent flooding and prevent adverse impacts to downstream drainage facilities by incorporating stormwater detention infrastructure, such as detention tanks and basins, such that hydrology impacts would be **less than significant after mitigation.**

4.9.7 Cumulative Effects

Water Quality

The geographic context for the analysis of cumulative impacts associated with water quality is the encompassing Santa Ana River Watershed. Although one small Project watershed (Number 13) drains toward the San Jacinto River, this area is not considered a part of the geographic context pertaining to cumulative water quality impacts, as watershed Number 13 is part of the proposed Conservation Easement, which would not be disturbed and therefore would not contribute to cumulative water quality impacts in the San Jacinto River watershed. Cumulative development in the Santa Ana River Watershed will increase impervious areas and add new sources of pollutants in stormwater runoff. Construction activities associated with development could temporarily increase the number of exposed surfaces that could contribute to sediments in stormwater runoff. Additionally, materials associated with construction activities could be deposited on surfaces and carried to receiving waters in stormwater runoff. Continued development and redevelopment within the Santa Ana River Watershed could also increase the number of impervious surfaces that could increase stormwater runoff rates and amounts, as well as result in changes in land use that may increase the amount of pollutants in stormwater runoff. All cumulative development in the watersheds would be subject to the existing regulatory requirements to protect water quality and minimize increases in stormwater runoff. For example, the Construction General Permit requires the development and implementation of a SWPPP for all construction sites larger than 1 acre to mitigate potential impacts to water quality from polluted stormwater runoff.

Every two years, the Santa Ana 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 development within the Santa Ana River Watershed would be subject to the water quality standards outlined in the 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.

Riverside County and other co-permittee cities and counties within the Santa Ana River Watershed are subject to the requirements of their respective MS4 Permits. Currently, the MS4 permits require that the project designer and/or contractor of all new development and redevelopment projects that fall under specific “priority” project categories must develop a WQMP, which include LID design requirements related to water quality. The LID features

would address long-term effects on water quality within the San Jacinto and Santa Ana River Watershed and ensure BMPs and LID designs minimize potential water quality concerns to the maximum extent practicable. Therefore, impacts associated with water quality standards and polluted runoff in the watersheds would be minimized and the proposed Project, in combination with other cumulative projects within the watershed, **would not result in cumulatively considerable impacts.** Similarly, although the Project hydrology and water quality impacts are potentially significant, with implementation of **MM-HYD-1**, Interim Soil Stabilization Plan, **MM-HYD-2**, Water Quality Management Plan, and **MM-HYD-3**, Hydrology/Drainage Study, the proposed Project's contribution to cumulative impacts **would not be cumulatively considerable**.

Groundwater Supply and Groundwater Recharge

Development of nearby related projects, as listed in Table 4-2, would increase land use intensities in the area, resulting in increased water usage. The proposed Project and some of the related projects are served by WMWD. As such, development of the proposed Project and the related projects would increase the amount of water used in WMWD's service area. WMWD's UWMP has planned for the provision of regional water, during normal, dry, and multiple dry years. The plan uses regional population, land use plans, and projections of future growth as the basis for planning water system improvements (including water treatment plants) and demonstrating compliance with state water conservation goals and policies. As such, to the extent that related projects are generally consistent with regional growth patterns and projections, the projects would not be expected to result in increased water usage causing the need for new entitlements, resources, and/or treatment facilities that are not already being planned to accommodate regional growth forecasts.

As previously discussed, WMWD has planned water supply projects aimed at meeting increased future water demands within its service area. These plans include increasing the groundwater recharge capabilities of the Arlington sub-basin, increasing the use of groundwater banking programs, increasing the use of desalinated water, and conjunctive use programs designed to increase regional water reliability (WMWD 2021). When coupled with regional groundwater management plans and the regulatory bindings of the basins, these projects would ensure that the proposed Project, as well as future regional projects, would not substantially decrease groundwater supplies or impede sustainable ground management of the relevant groundwater basins.

Certain qualifying projects would be subject to WSA requirements, which assess the sufficiency of supply for existing and future demands, to serve as evidentiary basis for an approval action by the March JPA on such projects. Further, compliance with the CALGreen would be required for new developments. This would ensure that many of the related projects, as well as the proposed Project, do not result in wasteful or inefficient use of limited water resources, and may in fact result in an overall decrease in water use per person. Due to water planning efforts and water conservation standards, impacts to groundwater supplies would be minimized, and the contributions of the proposed Project to cumulative impacts **would not be cumulatively considerable.**

Stormwater Drainage

The geographic context for the analysis of cumulative impacts related to storm drainage is the Santa Ana River Watershed. As discussed for water quality, although one small Project watershed (Number 13) drains toward the San Jacinto River, this area is not considered a part of the geographic context pertaining to cumulative stormwater runoff impacts, as watershed Number 13 is part of the proposed Conservation Easement, which would not be disturbed and therefore would not contribute to cumulative stormwater runoff volume/rate impacts. Cumulative development within the Santa Ana River Watershed will increase the number of impervious surfaces.

New development within the watersheds would be subject to the environmental review process and compliance with local stormwater regulations, such as the Construction General Permit, the Section 404 permit process of the CWA, local code requirements, and local Water Quality Management Plan requirements. Similar to the proposed Project, other projects in the Santa Ana River Watershed would incorporate hydromodification features such that drainage rates would be no more than existing conditions. Therefore, impacts associated with changes in runoff in the watershed would be minimized. As a result, the proposed Project, in combination with other cumulative projects within the watershed, **would not result in cumulatively considerable impacts.** Because specific stormwater control features have not been identified for all of the Campus Development parcels or the electrical substation, sewer lift station, and water tank, the Project would potentially contribute significant drainage impacts to cumulative project development. However, with implementation of **MM-HYD-3**, Hydrology/Drainage Study, the proposed Project's contribution to cumulative impacts **would not be cumulatively considerable** and no additional mitigation is required.

4.9.8 References Cited

County of Riverside. 2011. *Design Handbook for Low Impact Development Best Management Practices*. Accessed November 2, 2021. http://rcflood.org/downloads/NPDES/Documents/LIDManual/LID_BMP_Design_Handbook.pdf.

County of Riverside. 2017. *Watershed Action Plan, Santa Ana Region*. Completed by the Riverside County Flood Control and Water Conservation District, County of Riverside, and Cities in the Santa Ana River (MS4 Co-Permittees), and other watershed stakeholders. Accessed November 5, 2021. http://rcflood.org/downloads/NPDES/Documents/SA_WAP/WatershedActionPlan.pdf.

County of Riverside. 2021. *Riverside County General Plan, Safety Element*. Updated September 28, 2021. https://planning.rctlma.org/Portals/14/genplan/2021/elements/Ch06_Safety_092821.pdf.

EMWD (Eastern Municipal Water District). 2021. *West San Jacinto Groundwater Management Area, 2020 Annual Report*. Accessed November 3, 2021. https://www.emwd.org/west-san-jacinto-groundwater-management-area-annual-report.

FEMA (Federal Emergency Management Agency). 2021. FEMA Flood Map Service Center: Search By Address, Map #: 06065C0745G, effective August 28, 2008. Accessed November 3, 2021. https://msc.fema.gov/portal/search?AddressQuery=march%20airforce%20base#searchresultsanchor.

March JPA (Joint Powers Authority). 1999. *March Joint Powers Authority General Plan*.

March JPA. 2008. *National Pollutant Discharge Elimination System (NPDES) New Development & Redevelopment Guidelines for Projects Under the March Joint Powers Authority, WQMP Guidance Document*, January 9, 2008. Accessed November 2, 2021. https://www.marchjpa.com/documents/docs_forms/NPDES.pdf.

RCFCWCD (Riverside County Flood Control and Water Conservation District). 1978. *Hydrology Manual*. Accessed November 4, 2021. https://rcflood.org/Portals/0/Downloads/Hydrology-Manual-20180814.pdf?ver=2020-02-05-091623-987.

RCFCWCD. 1991. *Master Drainage Plan for the Perris Valley Area, Zone 4*. Accessed November 1, 2021. http://rcflood.org/Downloads/Master%20Drainage%20Plans/Updated/Zone%204/Reports/PerrisValleyMDP_report.pdf.

RCFCWCD. 2011. *Design Handbook for Low Impact Development Best Management Practices*. Accessed November 4, 2021. http://content.rcflood.org/downloads/NPDES/Documents/LIDManual/LID_BMP_Design_Handbook.pdf.

RCFCWCD. 2012. *HCOC Applicability Map, Hydromodification Susceptibility Documentation Report and Mapping*. Accessed November 4, 2021. http://content.rcflood.org/downloads/NPDES/Documents/SA_WQMP/Map%202_HCOC_Applicability_Map_60X42.pdf.

RCFCWCD. 2014. *Perris Valley Master Drainage Plan Exhibit.* Accessed November 1, 2021. http://rcflood.org/Downloads/Master%20Drainage%20Plans/Updated/Zone%204/exhibit/PerrisValleyMDPExhibit.pdf.

RCFCWCD. 2021. "Master Drainage Plan (MDP)." Accessed November 1, 2021. https://rcflood.org/I-Want-To/Learn-About/Master-Drainage-Plans.

Santa Ana RWQCB (Regional Water Quality Control Board). 2012. *Water Quality Management Plan, A Guidance Document for the Santa Ana Region of Riverside County*. Approved October 22, 2012. Accessed November 2, 2021. http://content.rcflood.org/downloads/NPDES/Documents/SA_WQMP/SantaAnaWQMPGuidance.pdf.

Santa Ana RWQCB. 2017. Santa Ana Region Hydromodification Management Plan. http://content.rcflood.org/downloads/NPDES/Documents/SA_WAP/AppE_HydromodificationManagementPlan.pdf.

Santa Ana Watershed Project Authority. 2014. *One Water One Watershed 2.0 Plan, Santa Ana River Watershed.* Accessed October 31, 2021. https://sawpa.org/owow/owow-irwm-plans/owow-2-0-plan/.

SWRCB (State Water Resources Control Board). 2011. "Impaired Water Bodies, 2010 Integrated Report (Clean Water Act Section 303(d) List/305(b) Report) – Statewide". Accessed November 2, 2021. https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml?wbid=CAR403310002005091817523 3.

SWRCB. 2019. *Santa Ana Region Basin Plan.* Accessed November 2, 2021. https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan//.

USGS (United States Geological Survey). 2021. Topographic Maps of the United States. Accessed November 2, 2021. https://apps.nationalmap.gov/downloader/#/startUp.

WMWD (Western Municipal Water District). 2021. *2020 Urban Water Management Plan Update*. Accessed November 3, 2021. https://www.wmwd.com/DocumentCenter/View/5433/Western-Final-Adopted-UWMP_20210630?bidId=.

INTENTIONALLY LEFT BLANK

SOURCE: DRC Engineering 2021

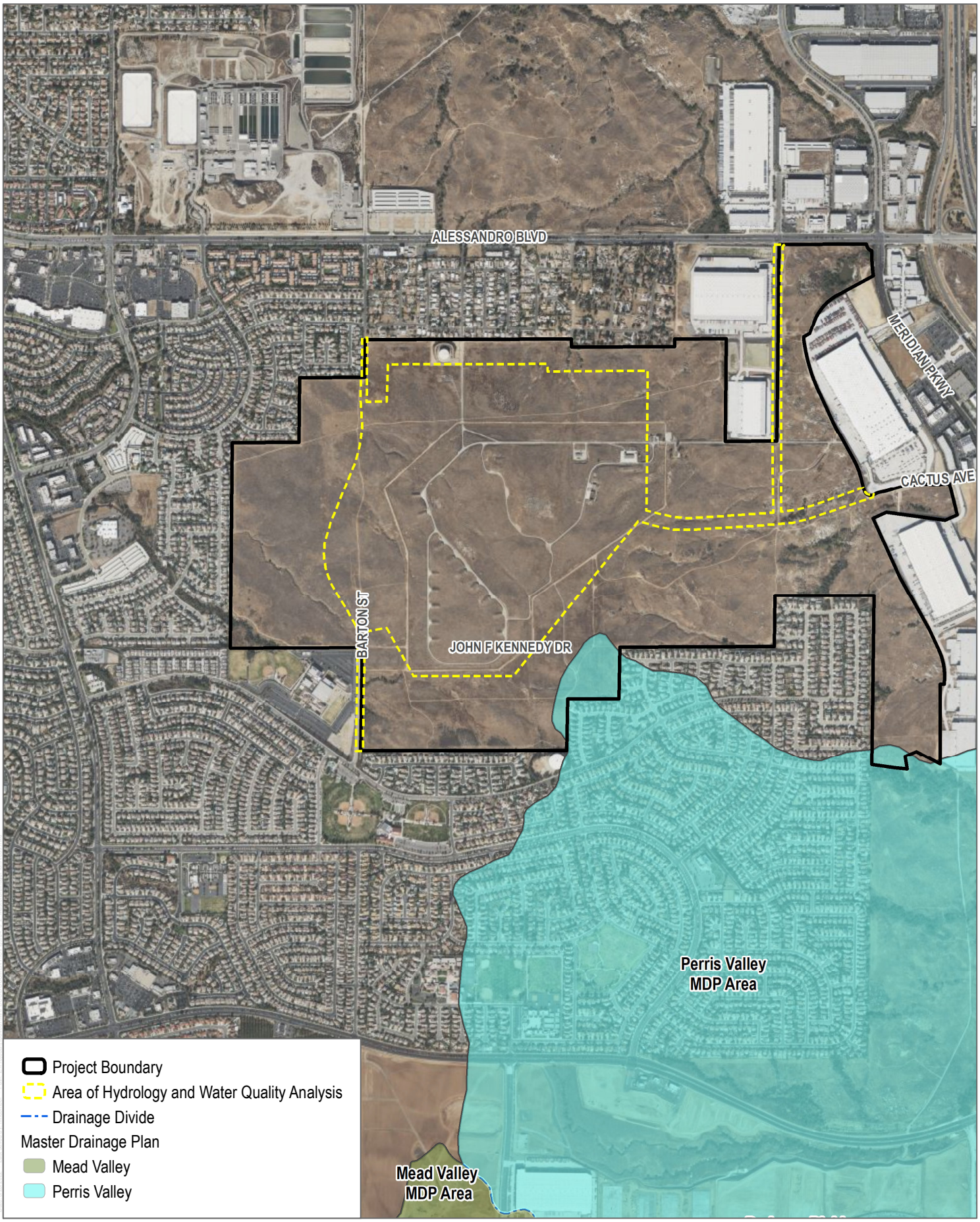
DUDEK

FIGURE 4.9-1

Existing Site Watersheds

West Campus Upper Plateau Project

INTENTIONALLY LEFT BLANK



SOURCE: Bing Maps 2020; RCFCWCD 2021

DUDEK

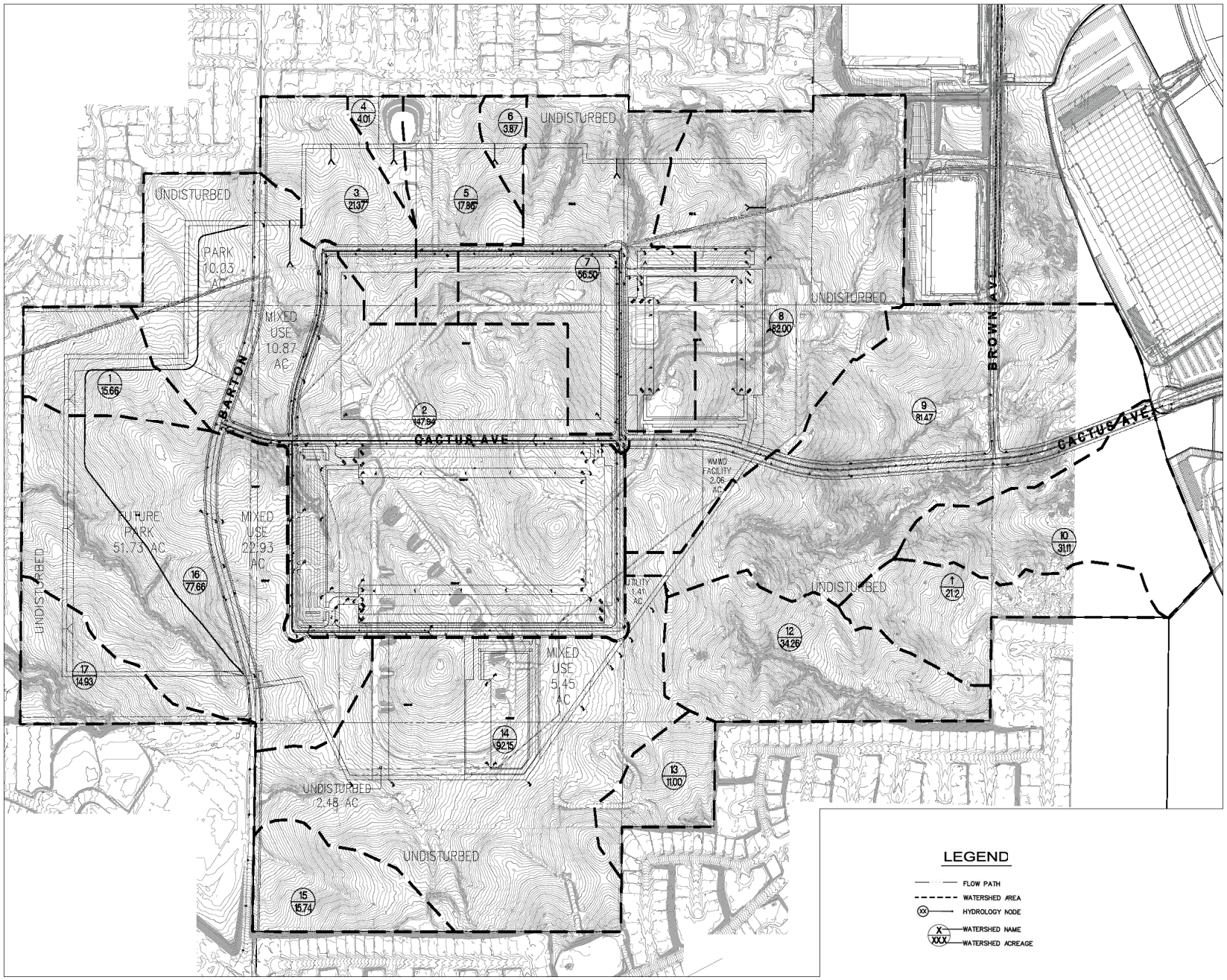
0 800 1,600 Feet

FIGURE 4.9-2

Master Drainage Plan Areas

West Campus Upper Plateau Project

INTENTIONALLY LEFT BLANK



SOURCE: DRC Engineering 2021

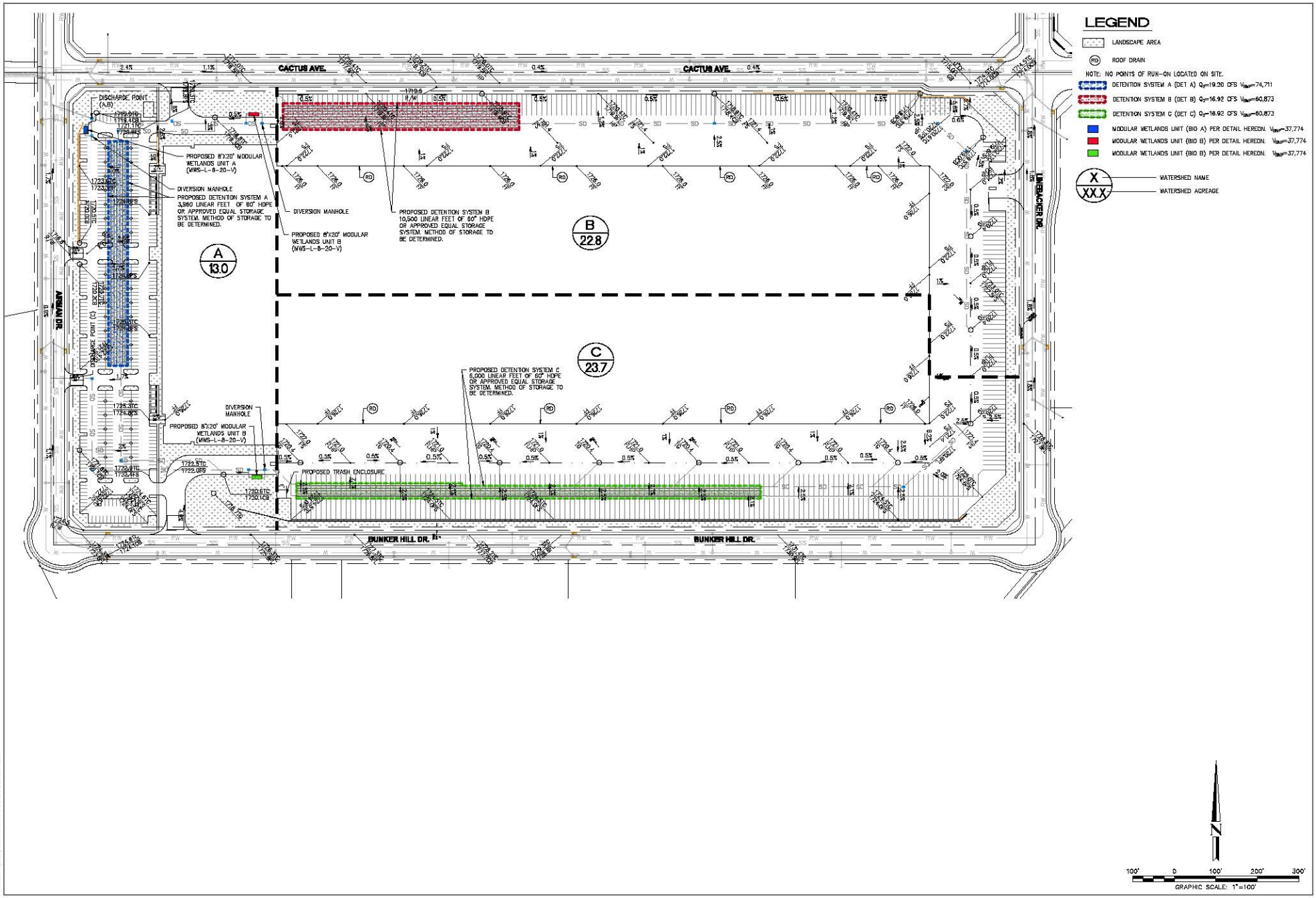
FIGURE 4.9-3

Proposed Project Site and Watersheds

West Campus Upper Plateau Project

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: Rocks Biological Consulting 2022

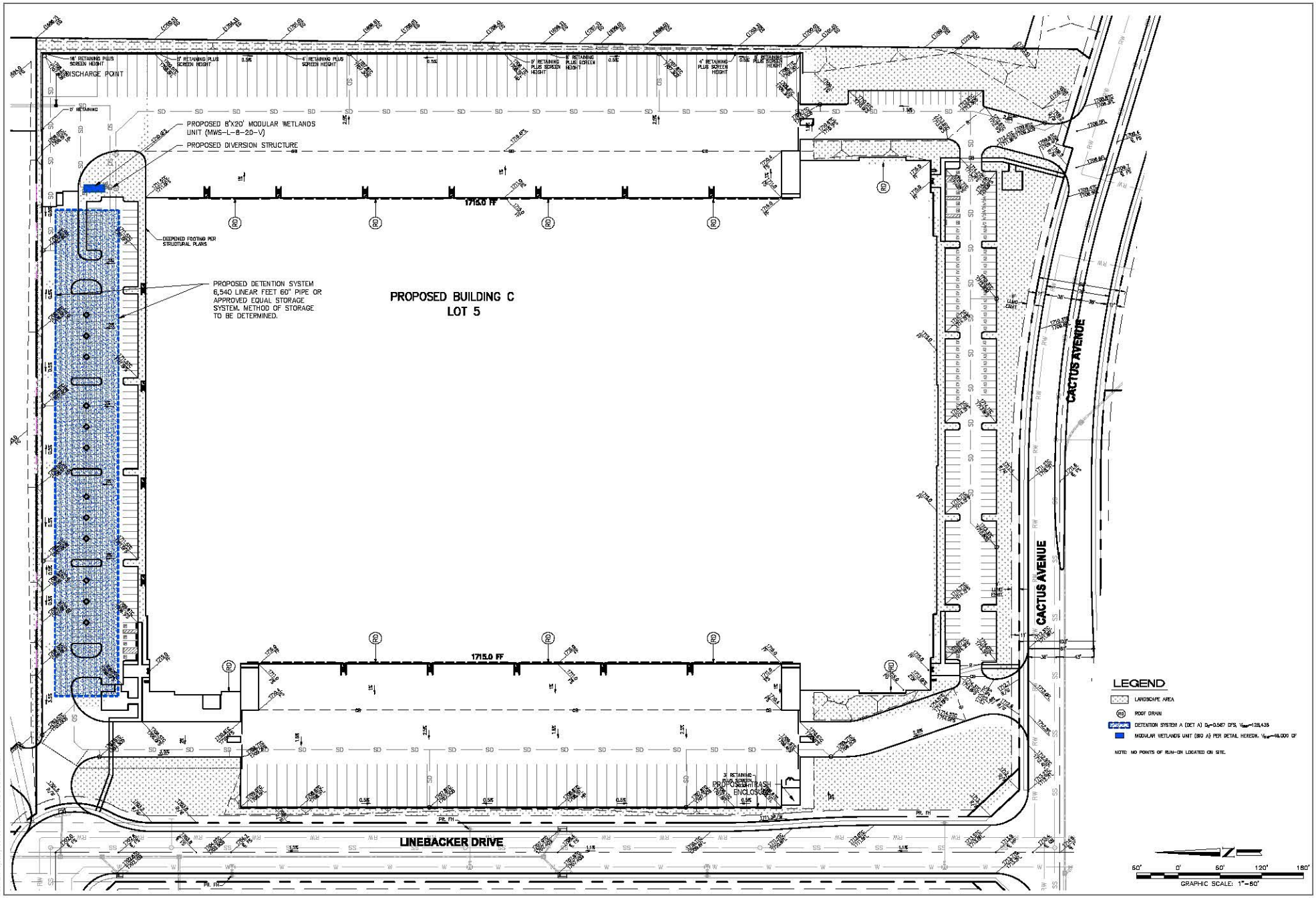
FIGURE 4.9-4

Proposed Building B Drainage Plan

West Campus Upper Plateau Draft EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: Rocks Biological Consulting 2022

FIGURE 4.9-5

Proposed Building C Drainage Plan

West Campus Upper Plateau Draft EIR

DUDEK

INTENTIONALLY LEFT BLANK

4.10 Land Use and Planning

This section of the Environmental Impact Report (EIR) describes the existing land use and planning conditions of the West Campus Upper Plateau Project (Project) site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project, as applicable. In addition to other documents, the following references were used in the preparation of this section of the Draft EIR:

- West Campus Upper Plateau Specific Plan No. SP-9 (Meridian 2023)
- General Plan of the March Joint Powers Authority (JPA) (March JPA 1999a)
- Master Environmental Impact Report for the General Plan of the March Joint Powers Authority (March JPA 1999b)

As discussed in detail in Chapter 3, Project Description of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1,280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.10.1 Existing Conditions

General Plan and Zoning

As shown in Figure 3-2, March JPA's General Plan currently designates the Project site as Business Park (BP), Industrial (IND), and Park/Recreation/Open Space (P/R/OS). The Project site has not previously been given a zoning designation per the March JPA Zoning Map, as shown in Figure 3-3, March JPA Zoning Designations.

Current On-Site Land Uses

Existing development within the Project site consists of a non-operational water tower, an existing public facility, paved and dirt access roads, and 16 bunkers that were previously used for munitions storage by the Air Force prior to March AFB's realignment in 1993. All of the bunkers are currently used by Pyro Spectaculars, Inc. for the storage of fireworks. While the Specific Plan Area encompasses existing development and previously disturbed land, the Conservation Easement primarily consists of open space and undeveloped land.

Surrounding Land Uses

The Project site is surrounded by residential uses to the north, west, and south; the Meridian West Lower Plateau development area, located within the March JPA planning area, to the east; and two new industrial buildings built by Exeter, located in Riverside County, to the northeast. The residential uses to the northwest and west are part of the Mission Grove neighborhood in the City of Riverside. A County unincorporated neighborhood is located to the north as well. The residential uses to the south are part of the Orangecrest neighborhood in the City of Riverside. Grove Community Church Preschool is located on the Grove Community Church campus, which is approximately 0.25 miles south of the Specific Plan Area. The next closest schools to the Project site, Benjamin Franklin Elementary School and Amelia Earhart Middle School, are located south of the Project site in the Orangecrest neighborhood. The Benjamin Franklin Elementary School is located approximately 0.8 miles south of the Specific Plan Area, and the Amelia Earhart Middle School is located approximately 1 mile south of the Specific Plan Area.

The parcels immediately to the east of the Project site are designated as Business Park (BP) and Industrial (IND). The parcels immediately to the north, west, and south of the Project site are not part of the March JPA planning area. The nearest residential area is located adjacent to the planned Conservation Easement and approximately 300 feet north of the proposed Business Park parcels in the Campus Development at its closest point (see Appendix C-1 for more detail).

4.10.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Aviation Administration

The Federal Aviation Administration (FAA) mandates that any structure that is located within proximity to an airport or other criteria per Code of Federal Regulations Title 14, Part 77.9, requires filing with the FAA. The Project site is wholly located within the March Air Reserve Base Military Outer Horizontal Surface, which may impact the assurance of navigation signal reception. As such, future implementation of the Project would require Project applicants to file Form FAA 7460-1, Notice of Proposed Construction or Alteration, with the FAA.

FAA Advisory Circular 150/5200-33C

In 2020, the FAA issued an Advisory Circular No. 150/5200-33C providing guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. The Advisory Circular also discusses airport development projects, including airport construction, expansion, and renovation, affecting aircraft movement near hazardous wildlife attractants. Hazardous wildlife is defined as any species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard. Included within the Advisory Circular are minimum separation criteria for land-use practices that attract hazardous wildlife to the vicinity of airports. Separation distances are based on flight patterns, altitude at which most strikes happen, and National Transportation Safety Board recommendations.

FAA Form 7460-2, Notice of Actual Construction or Alteration

The FAA must make a determination as to whether construction in a navigable airspace creates an impact on existing or proposed arrival, departure, and en-route procedures for aircraft operating under both visual flight rules

and instrument flight rules, where there is an impact to existing and public-use airports, military airports and aeronautical facilities, such as the March Air Reserve Base, and the cumulative impact resulting from the structure when combined with the impact of other existing or proposed structures. At least 48 hours in advance of actual construction or alteration, Form 7460-2 must be filed with the FAA.

State

Government Code Sections 65450 through 65457

Pursuant to Government Code Section 65451, a Specific Plan must include text and a diagram or diagrams, which specify all of the following in detail:

- The distribution, location, and extent of the uses of land, including open space within the area covered by the plan.
- The proposed distribution, location, extent, and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy and other essential facilities proposed to be located within the land area covered by the plan and needed to support the land uses described in the plan.
- Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.
- A program of implementation measures including regulations, programs, public works projects and financing measures necessary to carry out the above items.
- A discussion of the relationship of the Specific Plan to the General Plan.

Senate Bill 375

Senate Bill 375 was signed in September 2008 (Chapter 728, Statutes of 2008), and coordinates regional transportation planning efforts, regional greenhouse gas (GHG) reduction targets, and land use and housing allocation to contain urban sprawl and reduce GHG emissions across the state. Senate Bill 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or alternative planning strategy that will prescribe land use allocation. The California Air Resources Board (CARB), in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light duty trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies improve the ability to achieve the targets. CARB is also responsible for reviewing each MPO's SCS or alternative planning strategy for consistency with its assigned targets. This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or alternative planning strategy), although their housing elements must meet Regional Housing Needs Assessment targets (which will in part be influenced by the regional transportation plan). Ultimately, Senate Bill 375 is intended to prevent urban sprawl and encourage the co-location of housing and jobs to reduce commute times, limit traffic congestion, reduce transportation-related GHG emissions, and promote orderly growth.

Regional

Southern California Association of Governments

The Project site is located within the Southern California Association of Governments (SCAG) region and is part of Western Riverside Council of Governments. While March JPA is not a direct member of SCAG, the JPA's member agencies (County of Riverside, City of Riverside, City of Moreno Valley, and City of Perris) are members of SCAG. Senate Bill 375 requires MPOs to prepare an SCS in their Regional Transportation Plan (RTP). On September 3, 2020, SCAG formally adopted the Final 2020–2045 RTP/SCS (also referred to as Connect SoCal) and the addendum to the Connect SoCal Program EIR (SCAG 2020). Connect SoCal presents the land use and transportation vision for the SCAG region through 2045. The following are the Connect SoCal goals: (1) encourage regional economic prosperity and global competitiveness; (2) improve mobility, accessibility, reliability, and travel safety for people and goods; (3) enhance the preservation, security, and resilience of the regional transportation system; (4) increase person and goods movement and travel choices within the transportation system; (5) reduce greenhouse gas emissions and improve air quality; (6) support healthy and equitable communities; (7) adapt to a changing climate and support an integrated regional development pattern and transportation network; (8) leverage new transportation technologies and data-driven solutions that result in more efficient travel; (9) encourage development of diverse housing types in areas that are supported by multiple transportation options; (10) promote conservation of natural and agricultural lands and restoration of habitats (SCAG 2020).

Western Regional Council of Governments

The Western Riverside Council of Governments represents 18 cities, the Riverside County Board of Supervisors, the Eastern and Western Municipal Water Districts, and the Morongo Band of Mission Indians, and sets policy for the organization. The Western Riverside Council of Governments focuses on a number of regional matters including transportation, environment, energy, economy, and health (WRCOG 2020). While March JPA is not a direct member of the Western Riverside Council of Governments, the JPA's member agencies (County of Riverside, City of Riverside, City of Moreno Valley, and City of Perris) are members of the regional organization.

Stephens' Kangaroo Rat Habitat Conservation Plan

The Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) was completed in 1996 by the Riverside County Habitat Conservation Agency (RCHCA), CDFW, and USFWS. The SKR HCP was created as a regional plan for species permitting and conservation so that individual projects could receive FESA take authority for the species through Riverside County, rather than individually. The SKR HCP established seven "core reserves," totaling more than 41,000 acres, within a planning area of 533,000 acres. The RCHCA is responsible for "completing" the reserves through the addition of land in fee simple or through the acquisition of easements (RCHCA 1996).

A portion of the Core Reserve (the March Air Force Base SKR Management Area) was previously identified within the March Air Reserve Base. In 2003, the USFWS agreed to a land exchange in which the portion of the Core Reserve within the March JPA was released in exchange for land in Potrero (USFWS 2003). The Center for Biological Diversity and Audubon Society challenged the USFWS decision, and a settlement agreement was executed in 2012 (Cent*er for Biological Diversity v. Jim Bartel, et. al.* S.D. Cal. No. 09-cv-1854-JAH-POR; 'CBD Settlement Agreement') (Appendix S). Under the CBD Settlement Agreement, 649 acres of the former management area lands were identified as conservation lands to support Stephens' kangaroo rat. The Project's proposed 445.43-acre Conservation Easement will provide the remaining acreage required by the CBD Settlement Agreement (Appendix S). Under the SKR HCP, development within the Plan boundaries, but outside the Core Reserves, is deemed to have

been fully mitigated for any impacts to Stephen's kangaroo rat through compliance with the SKR HCP and the payment of a fee (RCHCA 2020). March JPA is not a Permittee to the SKR HCP; however, if a project under March JPA's oversight (CEQA lead agency) is anticipated to impact (would have a take of) Stephens' kangaroo rat, the March JPA may contact the RCHCA regarding obtaining a special agreement to participate in the Stephens' Kangaroo Rat HCP, which would include payment of mitigation fees.

Western Riverside County Multiple Species Habitat Conservation Plan

The Project is located within an area covered by the Western Riverside MSHCP. The Western Riverside MSHCP serves as a habitat conservation plan pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act (16 USC 1531 et seq.), as well as a Natural Communities Conservation Plan under the Natural Community Conservation Planning Act of 2001 (Fish and Game Code, Section 2800 et seq.). The Western Riverside MSHCP allows the participating jurisdictions to authorize "take" of plant and wildlife species identified within the Plan Area. The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have authority to regulate the take of threatened, endangered, and rare species. Under the Western Riverside MSHCP, the wildlife agencies have granted "take authorization" for otherwise lawful actions, such as public and private development that may incidentally take or harm individual species or their habitat outside of the WRMSHCP conservation area, in exchange for the assembly and management of a coordinated Western Riverside MSHCP conservation area. The March JPA is not a permittee under the MSHCP and therefore is not eligible for its take coverage. However, if needed, March JPA could seek "take" coverage through the MSHCP Participating Special Entity process and convey that take to the Project applicant. The activities of the Participating Special Entity must comply with the terms and requirements of the MSHCP permits, the MSHCP, and the Agreement with the participating special entity. Participating Special Entities also contribute to the MSHCP through payment of a fee based upon the type of proposed activity, which shall be applicable to all activities in the Plan Area.

Local

March Air Reserve Base/Inland Port Airport Air Installations Compatible Use Zones

The 2018 March ARB/Inland Port Air Installation Compatible Use Zone Study provided an extensive analysis of the effects of aircraft noise, accident potential, and compatible land use and development upon present and future neighbors of the March ARB/Inland Port. The Air Installation Compatible Use Zone (AICUZ) program is a means to protect public safety and health, while also protecting the Air Force's national defense mission, which includes training pilots. Based on the 2018 AICUZ noise level contours for the March ARB/IPA, the Specific Plan Area is located mostly between the 60 to 65 dBA CNEL noise level contour boundaries that is considered normally acceptable for the proposed Project land uses, as shown in Figure 4.10-1, AICUZ Noise Contours. For more discussion, see Section 4.11, Noise, of this EIR.

Riverside County Airport Land Use Commission

The Riverside County Airport Land Use Commission (ALUC) has been assigned lead responsibility for airport land use compatibility planning around each of the public-use and military airports in Riverside County. The Project site is located within the March ARB/Inland Port airport influence area within unincorporated Riverside County and therefore is subject to review and approval by the Riverside County ALUC.

The March ARB/Inland Port Airport Land Use Compatibility Plan (ALUCP) was prepared for and adopted by the Riverside County ALUC on November 13, 2014 (Riverside County ALUC 2014). The purpose of the March

ARB/Inland Port ALUCP is to promote compatibility between the March ARB/Inland Port Airport and the land uses that surround the joint-use airport, to the extent such areas are not already devoted to incompatible uses. The March ARB/Inland Port ALUCP regulates future development of new residential dwellings, commercial structures, and other noise- or risk-sensitive uses within the Airport Influence Area based on factors enumerated in the ALUCP, including, but not limited to, noise, overflight, safety, and airspace protection. According to the ALUCP, the Project site is located in Zones B1, B2, C1, and C2 (Mead & Hunt 2014). The Specific Plan Area is within Zones C1 and C2, while the Conservation Easement is within Zones B1, B2, C1 and C2. Zone B1 is designated as the Inner Approach/Departure Zone, which encompasses areas of high noise impact and high-risk level for safety and airspace protection factors. Zone B2 is described as a High Noise Zone, encompassing high noise impact and moderate risk level for safety and airspace protection factors. Zone C1 is designated as a Primary Approach/ Departure Zone, which encompasses areas of moderate to high noise impact and moderate risk level for safety and airspace protection factors. Zone C2 is described as a Flight Corridor Zone, which encompasses areas of moderate noise impact and moderate to low risk level for safety and airspace protection. The following restrictions apply for each zone, as shown in Table MA-2, Basic Compatibility Criteria for the March Air Reserve Base / Inland Port Authority (Mead & Hunt 2014):

Zone B1 (Inner Approach/ Departure Zone):

- Residential Density: No new dwellings allowed
- Other Uses: An average of 25 people per acre in Accident Potential Zone (APZ) I, and 50 people per acre in APZ II and outside APZs; or 100 people per one acre
- Required Open Land: Maximum of 50% lot coverage within APZs
- Prohibited Uses: Children's schools, day care centers, libraries; hospitals, congregate care facilities, hotels/ motels, restaurants, places of assembly; buildings with greater than 1 aboveground habitable floor in APZ I or greater than 2 floors in APZ II and outside of APZs; hazardous materials manufacture/ storage; noise sensitive outdoor nonresidential uses; critical community infrastructure facilities; hazards to flight; uses listed in the AICUZ as not compatible in APZ I or APZ II
- Other Development Conditions: Locate structures maximum distance from extended runway centerline; sound attenuation as necessary to meet interior noise level criteria; zoned fire sprinkler systems required; airspace review required for objects greater than 35 feet tall; electromagnetic radiation notification; avigation easement dedication and disclosure

Zone B2 (High Noise Zone):

- Residential Density: No new dwellings allowed
- Other Uses: An average of 100 people per acre or 250 people per one acre
- Required Open Land: No requirement
- Prohibited Uses: Children's schools, day care center, libraries; hospitals, congregate care facilities, hotels/motels, places of assembly; buildings with greater 3 aboveground habitable floor; noise-sensitive outdoor nonresidential uses; critical community infrastructure facilities; hazards to flight
- Other Development Conditions: Locate structures maximum distance from runway; sound attenuation as necessary to meet interior noise level criteria; aboveground bulk storage of hazardous materials discouraged; airspace review required for objects greater than 35 feet tall; electromagnetic radiation notification; avigation easement dedication and disclosure

Zone C1 (Primary Approach/ Departure Zone):

- Residential Density: Less than or equal 3.0 dwelling units per acre (du/ac)
- Other Uses: An average of 100 people per acre or 500 people for one acre
- Required Open Land: No requirement for open land
- Prohibited Uses: Children's schools, day care centers, libraries; hospitals, congregate care facilities, places of assembly; noise-sensitive outdoor nonresidential uses; and hazards to flight
- Other Development Conditions: Critical community infrastructure facilities discouraged; aboveground bulk storage of hazardous materials discouraged; sound attenuation as necessary to meet interior noise level criteria; airspace review requirements for objects greater than 70 feet tall; electromagnetic radiation notification; deed notice and disclosure

Zone C2 (Flight Corridor Zone):

- Residential Density: Less than or equal to 6.0 du/ac
- Other Uses: An average of 200 people per acre or 500 people for one acre
- Required Open Land: No requirement for open land
- Prohibited Uses: Highly noise-sensitive outdoor nonresidential uses; hazards to flights
- Other Development Conditions: Children's schools discouraged; airspace review requirement for objects greater than 70 feet tall; electromagnetic radiation notification; and deed notice and disclosure

March JPA General Plan

The March JPA General Plan is a long-range comprehensive plan designed to outline and delineate use and development of an area known formerly as March Air Force Base (AFB), prior to the base realignment in April 1996 to the March ARB. The March AFB was first established as a military installation in 1918 and has operated almost continually since that time. In July 1993, March AFB was selected to be realigned, and subsequently converted from an active-duty base to a Reserve Base, effective April 1, 1996. With the announcement of base realignment at March AFB, the adjacent jurisdictions immediately formed a Joint Powers Authority, known as March JPA. March JPA is a public entity, created for the purpose of addressing the use, reuse, and joint use of the realigned March AFB. The four individual public entities that cooperatively formed the JPA are the cities of Perris, Moreno Valley, and Riverside, and the County of Riverside. The JPA was created by separate resolutions of the four jurisdictions in September 1993. The March JPA defines reuse and development opportunities of the area, while preserving the environmental quality. The March JPA General Plan is designed to implement the March AFB Master Reuse Plan, which includes the disposal and redevelopment of approximately 4,400 acres of the 6,500-acre former March ARB. The March JPA General Plan establishes goals and policies to reach long-term objectives, and establishes long-term policies for day-to-day decisions, based upon those objectives (March JPA 1999a). The March JPA certified the General Plan In 1999. The goals and policies relevant to the Project are contained within the March JPA General Plan Land Use Element, Transportation Element, Noise/Air Quality Element, Resource Management Element, and Safety/Risk Management Element, as described below.

Land Use Element

The Land Use Element of the March JPA General Plan is based upon the March AFB Master Reuse Plan preferred land use pattern. This element delineates the general location and distribution of land uses, extent of existing and

proposed land uses for the March JPA planning area, and development criteria for development intensity. The goals and policies contained within the Land Use Element address the capitalization of the opportunities within the planning area, and the reuse and revitalization of existing facilities. The goals and policies contained in the Land Use Element focus on maintaining a balance between commerce, industry, and aviation uses, while promoting high quality development and minimizing land use conflicts. As shown in Figure 3-2, the Land Use Element currently designates the Project site as Business Park (BP), Industrial (IND), and Park/Recreation/Open Space (P/R/OS).

Transportation element

The Transportation Element of the March JPA General Plan determines the way in which land use is ultimately distributed throughout the March JPA planning area and the subsequent resulting physical environment. The location, classification, capacity, and mode type play an important role in shaping air quality, noise impacts, natural habitat, development types, and general appearance of the planning area. The Transportation Element includes Exhibit 2-3, Transportation Plan Systems, as amended by Resolution JPA#21-02, which identifies Cactus Avenue, Alessandro Boulevard, Van Buren Boulevard, and Meridian Parkway as truck routes. All truck routes are oriented to and from Interstate 215. The extent of necessary facilities, adequacy of service levels, and transportation demand management measures, along with general location and infrastructure facilities, are described within this element of the General Plan.

Noise/Air Quality Element

The Noise/Air Quality Element of the March JPA General Plan addresses noise and air quality due to the nexus of generators and significance to the General Plan and region. The Noise/Air Quality Element examines the existing and future noise environment and noise generators of the planning area. The Noise/Air Quality Element contains a discussion of local and regional air quality, stationary and mobile emission sources, and programs to reduce pollutant emissions generated.

Resource Management Element

The Resource Management Element of the March JPA General Plan provides for the conservation, development, and use of natural, historical, and cultural resources. The Resource Management Element also details plans and measures for the preservation of open space designed to promote the management of natural resources, outdoor recreation and public health and safety.

Safety/Risk Management Element

The Safety/Risk Management Element of the March JPA General Plan identifies and establishes standards and plans for the protection of the planning area from a variety of hazards including earthquakes, flooding, fire, geological, and airport compatibility conditions.

March JPA Development Code

The primary implementation mechanism for the Land Use Element is the March JPA Title 9, Development Code, which provides zoning, development and subdivision regulations for all land within its jurisdiction.

4.10.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to land use and planning are based on the March JPA 2022 California Environmental Quality Act (CEQA) Guidelines. According to the March JPA CEQA Guidelines, a significant impact related to land use and planning would occur if the Project would:

LU1: Physically divide an established community.

LU2: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

As discussed in the Initial Study (Appendix A) prepared for the Project, the Project would not physically divide an established community, and no impact would occur. Accordingly, this issue is not analyzed within this section of the EIR. For details regarding this threshold, please refer to Section 5.2, Effects Found Not to be Significant, as well as Appendix A. For the purposes of this analysis, a significant land use impact would occur if the Project would:

LU-1: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

4.10.4 Impacts Analysis

Threshold LU-1. ***Would the Project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect***

To evaluate the Project's impacts related to land use and planning, this analysis examines the Project's consistency with both regional and local plans, policies, and regulations that regulate land uses within the Project site. These plans are as follows:

- March JPA General Plan
- March JPA Development Code
- Riverside County Airport Land Use Compatibility Plan
- Habitat Conservation Plans – Consistency with the Stephens' Kangaroo Rat Habitat Conservation Plan and Western Riverside County Multiple Species Habitat Conservation Plan are discussed in Threshold BIO-6 of Section 4.3, Biological Resources, which concludes the Project would result in beneficial impacts with the incorporation of mitigation measures **Mitigation Measure (MM)-BIO-1**, **MM-BIO-2**, **MM-BIO-5A**, **MM-BIO-5B**, and **MM-BIO-8**.
- SCAG's Connect SoCal (2020–2045 RTP/SCS)-- Consistency with Connect SoCal is discussed in Table 4.15-2 of Section 4.15, Transportation, of this EIR, which concludes the Project's consistency impacts would be **less than significant.**

In summary and further discussed below, the March JPA General Plan designates the Project site as Business Park (BP), Industrial (IND), and Park/Recreation/Open Space (P/R/OS) land uses. The Project site has not previously been given a zoning designation by March JPA. The Project proposes a General Plan Amendment that would substantially

increase the planned Park/Recreation/Open Space from the current 122 acres to 523.43 acres, eliminate approximately 622.5 gross acres of planned Business Park and 63 acres of planned Industrial, apply Specific Plan (SP-9) to 369.60 gross acres, and apply Public Facility (PF) to 2.87 acres to accommodate an existing EMWD water storage tank. The proposed Specific Plan includes a mix of Industrial, Business Park, Mixed Use, Parks/Recreation/Open Space, and Public Facility land uses. The Project also includes the establishment of a 445.43-acre Conservation Easement, which would be zoned as Open Space–- Conservation, in compliance with the CBD Settlement Agreement (Appendix S). The Project proposes adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13 containing development standards, design guidelines, infrastructure master plans, maintenance responsibilities, phasing schedule, and implementation procedures necessary to develop the Specific Plan Area. As discussed in detail in Chapter 3, Project Description of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1,280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

March JPA General Plan

Specific Plan Area and Conservation Easement

For purposes of evaluating the consistency of the Project with the March JPA General Plan, the entirety of the Project (the Specific Plan Area and the establishment of the Conservation Easement) are evaluated together. The Project proposes a General Plan Amendment, Specific Plan, Zoning Amendment, Tentative Parcel Map, two Plot Plans, an amendment to the Disposition and Development Agreement and a Development Agreement to redevelop the former munitions bunkers of the March AFB. The current General Plan land use designations for the Project site are Business Park (BP), Industrial (I), and Park/Recreation/Open Space (P/R/OS).

With the adoption of the proposed General Plan Amendment, the Project would increase planned Park/Recreation/Open Space land uses from the current 122 acres to 445.43 acres and convert approximately 622.5 gross acres of planned Business Park and 63 acres of planned Industrial to Specific Plan (SP-9). The Project's Specific Plan would consist of a total of 369.6 acres, including a mix of Industrial, Business Park, Mixed Use, and Parks/Recreation/Open Space, and Public Facility land uses. The Project also includes the establishment of a 445.43-acre Conservation Easement, which would be designated as Open Space–- Conservation, in compliance with the CBD Settlement Agreement (Appendix S). Furthermore, the Project would facilitate a buildout assumed for the Project site (see above). As such, a consistency analysis is provided within Table 4.10-1 to demonstrate compatibility of both the Project's proposed Specific Plan Area and Conservation Easement with each applicable goal of the March JPA General Plan.

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
Goal 1: Land Use Plan provides for a balanced mix of land uses that contribute to the regional setting, and capitalize on the assets of the planning area, while insuring compatibility throughout the planning area and with regional plans.	***Consistent:*** Development of the Project would occur in a logical pattern of growth through the guidance of a Specific Plan, compatible with adjacent land uses to the east and northeast. Consistent with the vision of the March JPA General Plan, the Project would develop employment-generating land uses for the Project site's vicinity that is largely residential, such as those to the north, south, and west. As further detailed in Section 4.12, Population and Housing, the Project would maintain the balanced jobs-housing ratio under existing and future conditions of Riverside County, thus, providing an opportunity for residents to work locally, rather than commute to surrounding areas throughout the region. The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The currently existing service roads within the Conservation Easement would continue to be utilized by the public for passive recreation as authorized by the March JPA. The Project's proposed land uses would further provide a balanced mix of uses for the local and regional vicinity.
Goal 2: Locate land uses to minimize land use conflict or creating competing land uses, and achieve maximum land use compatibility while improving or maintaining the desired integrity of the planning area and subregion.	***Consistent.*** The March JPA General Plan identified the need to develop commercial, industrial, and business park land uses within the March JPA planning area to recapture economic loss attributed to March AFB realignment and improve the jobs/housing balance within the Western Riverside County subregion. Existing development within the Project site consists of a water tower, dirt access roads, and 16 bunkers that were previously used for munitions storage by the Air Force. The proposed Specific Plan Area would provide a mixture of compatible land uses. The land proposed for the Conservation Easement primarily consists of open space and undeveloped land. In compliance with the CBD Settlement Agreement (Appendix S), the Conservation Easement would provide a buffer of at least 300 feet on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. This would minimize potential conflicts with residential uses to the north, south, and west. Moreover, the Project would be developed in compliance with the proposed Specific Plan, which would facilitate a proposed buildout of industrial, mixed-use, and business park land uses within the Specific Plan Area. Public facilities, parks and open space, and proposed infrastructure improvements would improve the Project site's area. Incompatible or competing land uses would not be permitted within the Project site with the approval of the proposed Specific Plan.

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
Goal 3: Manage growth and development to avoid adverse environmental and fiscal effects.	***Partially Consistent.*** The Project would be developed in accordance with the development standards and design guidelines of the proposed Specific Plan. Development of the Specific Plan Area will be phased to ensure the required infrastructure and services are in place. As discussed in Section 4.12, Population and Housing, the Project would not conflict with the existing and future growth projections anticipated under SCAG's Connect SoCal. As demonstrated throughout this EIR, the Project's potential environmental impacts are analyzed. When potentially significant impacts are anticipated, this EIR incorporates applicable and feasible mitigation measures in order to reduce impacts to a less than significant level. However, some environmental impacts would be significant and unavoidable (see Chapter 5, Other CEQA Considerations). As such, the development of the proposed Project would not avoid all potentially adverse environmental effects. Regarding fiscal effects, the March JPA General Plan identified the need to develop commercial, industrial, and business park land uses within the March JPA planning area to recapture economic loss attributed to March AFB realignment and improve the jobs/housing balance within the Western Riverside County subregion. The Project would, therefore, result in beneficial fiscal effects with the buildout of the Specific Plan.
Goal 4: Develop an identity and foster quality development within the planning area.	***Consistent.*** The Project proposes the adoption of a Specific Plan with development standards and guidelines necessary to develop the Project site consistent with the proposed General Plan Amendment. With approval of the Specific Plan, design guidelines would establish architectural styles, signage, parking, and landscaping standards that would develop a Project identity and foster quality development through the Project's buildout scenario.
Goal 5: Maximize and enhance the tax base and generation of jobs through new, reuse and joint use opportunities.	***Consistent.*** The proposed land uses for the Project site would permit various employment-generating land uses within the proposed Industrial, Mixed Use, and Business Park designations. The Project's buildout would provide tax base enhancements and recapture economic loss attributed to March AFB realignment.
Goal 6: Support the continued Military Mission of March Air Reserve Base, and preservation of the airfield from incompatible land use encroachment.	***Consistent.*** The Project site is within the boundaries of the March ARB/Inland Port ALUCP and March ARB AICUZ study area, as shown in Figures 4.10-1 and 4.10-2. The land uses proposed under the Project are allowed and compatible under the ALUCP. Given this, the Project would not conflict with the continued operations of the March ARB. For more discussion, see the consistency analysis under Riverside County Airport Land Use Compatibility Plan, below, in this section.

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
Goal 8: Preserve the natural beauty, minimize degradation of the March JPA planning area, and provide enhancement of environmental resources and scenic vistas.	***Consistent:*** As part of the CBD Settlement Agreement (Appendix S), the Project would establish 445.43 acres of undisturbed land surrounding the Specific Plan Area for conservation. The existing land use designation for the Conservation Easement is Business Park (BP) and Industrial (IND). Under the proposed Project, the Conservation Easement would be redesignated as Open Space – Conservation. The Conservation Easement would provide a buffer of at least 300 feet on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. Moreover, this EIR analyzes the Project's potential impacts to aesthetics, such as impacts to scenic vistas. As further discussed in Section 4.1, Aesthetics, impacts to scenic vistas are anticipated to be less than significant with no mitigation required. For more discussion, see Section 4.1 of this EIR.
Goal 9: Preserve the integrity of the historic and cultural resources of the planning area and provide for their enhancement.	***Partially Consistent:*** As part of the proposed Conservation Easement, no development or ground-distributing activities would occur. Thus, the Project would not have the potential to result in impacts to historic cultural resources within the Conservation Easement. However, development of the Specific Plan Area would result in impacts to historic and cultural resources. As detailed further in Section 4.4, Cultural Resources, even with the application of **MM-CUL-1** through **MM-CUL-9**, the Project would result in significant and unavoidable impacts to historical and archaeological resources. The Project proposes to preserve two of the bunkers of the Weapons Storage Area within open space. Given this, the Project would be partially consistent with this goal. For more discussion, see Section 4.4, Cultural Resources, of this EIR.
Goal 10: Avoid undue burdening of infrastructure, public facilities, and services by requiring new development to contribute to the improvement and development of the March JPA planning area.	***Consistent:*** Development of the proposed Project would contribute to the improvement and development of the March JPA planning area by completing all necessary on-site and off-site infrastructure (i.e., construction of the new 0.5 million gallon (MG) reclaimed water storage tank on an existing pad adjacent to an existing WMWD water tank) and by providing the required Development Impact Fees, which would contribute to required facilities and services. For more discussion on impacts associated with infrastructure, public services, and transportation, see Section 4.17, Utilities and Service Systems, Section 4.13, Public Services, and Section 4.15, Transportation, of this EIR.
Goal 11: Plan for the location of convenient and adequate public services to serve the existing and future development of March JPA planning area.	***Consistent:*** As described in Section 4.13, Public Services, existing and planned public services can serve the Project without significant impacts and no mitigation is required. Incorporation of **MM-FIRE-1**, which would ensure

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	adequate firebreaks and vegetation management is implemented prior to the issuance of grading and building permits (see Section 4.18, Wildfire for more details), would further reduce impacts related to fire protection services. Additionally, the Project would be subject to the payment of a DIF for applicable fire facilities. Pursuant to Ordinance No. JPA 15-01, the Project's DIF amount for fire facility fees would be determined and paid at the time building permits are issued. Payment of development fees by the Project Applicant would be used to offset the costs of capital improvements that could be required to maintain acceptable service ratios, response times, and other performance objectives. In addition, the Project would be subject to the County's Structural Fire Tax, which would be used to offset the costs of increased operations and maintenance costs. The payment of development fees, along with a payment dedicated in the amount of $1.25 million, made during the recently authorized Disposition and Development Agreement, would further reduce impacts. Similarly, as further discussed in Section 4.13, Public Services, the Project Applicant would pay DIF in the amount of $100,000 during the year the first mass grading permit is pulled as well as during the second year. The fees paid would account for any additional service patrols needed by the Sheriff's Department for the proposed Project. Furthermore, the Project would not interfere with the planned provision of adequate public services, including a new fire station at the northeast corner of Meridian Parkway and Opportunity Way. The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The currently existing service roads within the Conservation Easement would continue to be utilized by the public for passive recreation as authorized by the March JPA. For more discussion public services, see Section 4.13, Public Services, of this EIR.
Goal 12: Ensure, plan, and provide adequate infrastructure for all facility reuse and new development, including but not limited to, integrated infrastructure planning, financing, and implementation.	***Consistent:*** Utility infrastructure will be installed and expanded within the Specific Plan Area consistent with required facilities identified in the Specific Plan. These facilities are proposed to serve the Specific Plan Area and proposed infrastructure improvements would provide

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	adequate infrastructure for proposed land uses through the Project's buildout. Such infrastructure improvements include the installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 MG reclaimed water tank. Implementation of the Specific Plan would include compliance with proposed design guidelines as well as development standards, and procedures necessary to develop the Specific Plan Area consistent with the March JPA Development Code.
Goal 13: Secure adequate water supply system capable of meeting normal and emergency demands for existing and future land uses.	***Consistent.*** The proposed Project would be served by an existing water supply system that would provide sufficient capacity to accommodate projected normal and emergency needs. As described in Chapter 3, the Project includes infrastructure improvements such as the installation of utility and roadway networks throughout the Specific Plan Area and the construction of a new 0.5 MG reclaimed water tank. As described further in Section 4.17, Utilities and Service Systems, of this EIR, Project impacts to utilities and service systems would be less than significant and no mitigation would be required. See Section 4.17, Utilities and Service Systems, for more discussion on water supplies and Project consistency with the Western Municipal Water District (WMWD) projections.
Goal 14: Establish, extend, maintain, and finance a safe and efficient wastewater collection, treatment, and disposal system, which maximizes treatment and water recharges, minimizes water use, and prevents groundwater contamination.	***Consistent.*** The proposed Project would provide the necessary facilities to establish a wastewater collection, treatment, and disposal system. As described in Chapter 3, the Project includes infrastructure improvements such as the installation of utility and roadway networks throughout the Specific Plan Area and the construction of a new sewer lift station. Project impacts to utilities and service systems would be less than significant, and no mitigation is required. See Section 4.17, Utilities and Service Systems, of this EIR for more discussion on the Project's impact to existing sewer infrastructure and WMWD's treatment capacity.
Goal 15: In compliance with state law, ensure solid waste collection, siting, and construction of transfer and/or disposal facilities, operation of waste reduction and recycling programs, and household hazardous waste disposal programs and education are consistent with the County Solid Waste Management Plan.	***Consistent.*** The proposed Project would comply with the Countywide Integrated Waste Management Plan, in accordance with Assembly Bill 939. Project impacts to solid waste/hazardous waste collection and disposal would be less than significant, and no mitigation is required. See Section 4.17, Utilities and Service Systems, of this EIR for more discussion.
Goal 16: Adequate supplies of natural gas and electricity from utility purveyors and the availability of communications services shall be provided within the March JPA planning area.	***Consistent.*** As described in Chapter 3, the Project includes infrastructure improvements such as the installation of utility and roadway networks throughout the Specific Plan Area and the construction of a new

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	electrical substation. The Project will not use natural gas. Although the Specific Plan would not use natural gas, conceptual utility plans (Figure 3-7H) indicate that Campus Development would result in the buildout of on-site natural gas infrastructure. A natural gas line would be connected to existing facilities stubbed out at the western terminus of Cactus Avenue. Upgrades would be confined to the Specific Plan Area and not to any centralized facilities. See Section 4.17, Utilities and Service Systems, of this EIR for more discussion on supplies and service.
Goal 17: Adequate flood control facilities shall be provided prior to, and concurrent with, development in order to protect the lives and property within the March JPA planning area.	***Consistent.*** The Project would provide drainage facilities on site necessary for adequate flood control. Potentially significant impacts are anticipated to occur related to surface runoff and potential flooding, as further described in Section 4.9, Hydrology and Water Quality, of this EIR. However, the incorporation of **MM-HYD-3** would reduce impacts to a less than significant level. See Section 4.9, Hydrology and Water Quality, of this EIR for more discussion.
Transportation	
Goal 1: Establish and provide for a comprehensive transportation system that captures the assets and opportunities of the planning area, existing transportation facilities, and planned transportation facilities for the future growth and development of the planning area and sub-region.	***Consistent.*** The proposed Project would not inhibit March JPA from complying with this goal. As demonstrated in this EIR, the Project includes transportation improvements consistent with the March JPA General Plan. Proposed improvements within the Specific Plan Area and proposed off-site improvements (included as **PDF-TRA-1** and **PDF-TRA-2**) would result in access to multi-modal transportation facilities within the Project site. Implementation of the Project through the buildout of the Specific Plan would ensure development would not impact operations or safety on roadways in the Project site's vicinity. As further discussed in Section 4.15, Transportation, the Project would result in a less than significant transportation impacts with the incorporation of **MM-TRA-1** and **MM-TRA-2**. Moreover, with the implementation of proposed improvements (e.g., **PDF-TRA-1** and **PDF-TRA-2**) such as constructing adequate on-site roadways and by the way of paying fair share towards operational improvements warranted, identified in the Appendix N, the Project would not inhibit this goal. See Section 4.15, Transportation, and Appendix K WCUP Traffic Analysis, of this EIR for more discussion.
Goal 2: Build and maintain a transportation system which capitalizes on the multifaceted elements of transportation planning and systems, designed to meet the needs of the planning area, while minimizing negative effects on air quality, the	***Partially Consistent.*** The Specific Plan Area would be served by the existing transportation system within March JPA and surrounding jurisdictions. The Project would not inhibit the buildout and maintenance of the transportation system. The Specific Plan Area would be served by both local transit service and inter-city

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
environment and adjacent land uses and jurisdictions.	passenger rail service. The closest bus stop is located on Alessandro Boulevard to the north and the closest Metrolink passenger rail transit station is located approximately 1.5 miles from the Campus Development. **MM-GHG-11** provides funding for a bus shelter on Alessandro Blvd. In addition, 4- to 6-foot bike lanes are proposed on all Specific Plan Area roadways and 4- to 6-foot sidewalks within the Specific Plan Area would enhance connectivity. The Project would accommodate existing and future local transit service, bicycle lanes, and pedestrian facilities. As discussed in Section 4.15, Transportation, **MM-TRA-1** and **MM-TRA-2** would be incorporated to reduce impacts related to construction and operation of the Specific Plan Area to a less than significant level. See Section 4.15, Transportation, of this EIR for more discussion. However, as demonstrated in Section 4.2, Air Quality, the Project would exceed regional thresholds of significance for operational emissions. **MM-AQ-2** through **MM-AQ-15** are designed to reduce Specific Plan operational-source VOCs, NO_x, CO, and PM_{10} emissions. However, because the effects of these mitigation measures cannot be meaningfully quantified, impacts would be significant and unavoidable.
Goal 3: Develop a transportation system that is safe, convenient, efficient and provides adequate capacity to meet local and regional demands.	***Consistent.*** As described in Chapter 3, Project Description, and **PDF-TRA-1**, the Specific Plan Area would be accessed through the extension of existing streets that have been planned in the March JPA General Plan and the City of Riverside General Plan. Access to the Specific Plan Area from the east would be provided via Cactus Avenue, which would be extended to the west from its current western terminus through the Specific Plan Area to Airman Drive. Cactus Avenue will not extend west of Airman Drive to Barton Street; however, a gated emergency vehicle access (EVA) only connection will be maintained and not be accessible by any vehicular traffic. Access to the Specific Plan Area from the north would be via Brown Street, which would be extended to the south to connect from Alessandro Boulevard to the new extension of Cactus Avenue. The Park would be accessible from the north and south by extending Barton Street to connect from Alessandro Boulevard in the north to Grove Community Drive in the south. The construction of proposed infrastructure improvements would provide transportation capacity to existing and future demand. As described further in Section 4.15, Transportation, the Project would result in a less than significant VMT impact. Although consistency with General Plan level of service (LOS) standards is not a CEQA requirement, to meet the minimum acceptable LOS and deficiency criteria of each

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	jurisdiction, improvements, along with the Project's fair share contribution have been included in Table 1-4 of the Traffic Analysis (Appendix N-2). With the implementation of these proposed improvements such as constructing adequate on-site roadways (**PDF-TRA-1**) and by paying fair share towards operational improvements warranted, identified in the Table 1-4 of the TA, the Project would maintain and develop a transportation system that is safe, convenient, efficient and provides adequate capacity to meet local and regional demands.
Goal 4: Provide a balanced transportation system that ensures the safe and efficient movement of people and goods throughout the planning area, while minimizing the use of land for transportation facilities.	***Consistent:*** Specific Plan Area internal streets would accommodate projected future traffic in an efficient manner. Roadway improvements for roadways would be consistent with the March JPA's Road Improvement Standards and Specifications. Policy 4.3 requires that arterial roadways should be planned and improved to maintain a level of service (LOS) "D" or better with limiting circumstances of LOS "E" to occur and Policy 4.5 requires the dedication and improvement of arterial roadways prior to the issuance of certificates of occupancy. **PDF-TRA-1** identifies the on-site and off-site adjacent roadway improvements incorporated into the Project to accommodate site access. Although consistency with General Plan level of service (LOS) standards is not a CEQA requirement, to meet the minimum acceptable LOS and deficiency criteria of each jurisdiction, improvements, along with the Project's fair share contribution have been included in Table 1-4 of the Traffic Analysis (Appendix N-2). The fair share contribution will be imposed as Conditions of Approval as part of the Project approval. See Section 4.15, Transportation, and Appendix N-2 Traffic Analysis of this EIR for more discussion.
Goal 5: Plan and encourage land use patterns and designs, which enhance opportunities for non-vehicular circulation and improve trip reduction strategies.	***Consistent.*** Site plans for individual buildings would be reviewed during the plan check process to ensure that pedestrian, bicycle, and transit access is facilitated. The Specific Plan Area includes a bicycle and pedestrian circulation network to connect to existing facilities and provide internal access. At Project buildout, sidewalks would be constructed on all internal roadways along the individual parcel's frontage. In addition, 4- to 6-foot bike lanes and 4- to 6-foot sidewalks would be included on internal streets such as Linebacker Drive, Airman Drive, Bunker Hill Drive, and Arclight Drive. As demonstrated in Section 4.15, Transportation, **MM-TRA-1** and **MM-TRA-2** would be incorporated to reduce impacts related to construction and development of the Specific Plan to a less than significant level. The Project would result in a

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	less than significant VMT impact. See Section 4.15, Transportation, for more discussion.
Goal 6: Establish vehicular access control policies in order to maintain and insure the effectiveness and capacity of arterial roadways.	***Consistent.*** Access to the Project site would be via Cactus Avenue, Brown Street, and Barton Street, which are classified as major Arterial and Industrial Collector Streets according to the General Plan. Project internal roadways would be designed in accordance with the March JPA Road Improvement Standards and Specifications and would be built per ultimate cross-section requirements. With the implementation of the improvements identified in **PDF-TRA-1** and by the way of paying fair share towards operational improvements warranted, identified in the Appendix N, the Project would be consistent with this goal. See Section 4.15, Transportation, and Appendix N of this EIR for more discussion.
Goal 7: Facilitate and develop transportation demand management and transportation systems management programs, and use of alternate transportation modes.	***Consistent.*** The proposed Project's impacts related to transportation demand management and alternative transportation modes are further discussed in Section 4.15, Transportation, of EIR. As demonstrated in Section 4.15, Transportation, **MM-TRA-1** and **MM-TRA-2** would be incorporated to reduce impacts related to construction and development of the Specific Plan to a less than significant level. On-site roadways such Linebacker Drive, Airman Drive, Bunker Hill Drive, and Arclight Drive would be constructed with bike and pedestrian facilities, which would provide direct access to the proposed Specific Plan Area uses. The Project would construct a 10-foot-wide multi-purpose trail along the western side of Barton Street fronting the Park. RTA routes 20 and 27 and the Perris Valley Metrolink Station provide transit service in proximity to the Specific Plan Area. **MM-GHG-11** provides funding for a bus shelter on Alessandro Blvd. See Section 4.15, Transportation, for more discussion.
Goal 8: Adequate, affordable, equitably distributed and energy efficient public and mass transit services which promote the mobility to, from, and within the planning area shall be provided.	***Consistent.*** The Project site would be served by both local transit service and inter-city passenger rail service. The local transit system of bus stops and bus shelters would be approved by the Riverside Transit Agency. The closest bus stop is located on Alessandro Boulevard to the north of the Project site. **MM-GHG-11** provides funding for a bus shelter on Alessandro Blvd. The Metrolink passenger rail transit facility is located approximately 1.5 miles from the Campus Development. The 4- to 6-foot bike lanes on all Project roadways and 4- to 6-foot sidewalks within the Project would enhance connectivity to the existing Metrolink Station. No impact would occur to public and mass transit services. During construction, the Project would be required to implement **MM-TRA-1** to reduce the impact of construction activities to the circulation system

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	to a less than significant level. See Section 4.15, Transportation, of this EIR for more discussion.
Goal 9: Develop measures which will reduce the number of vehicle-miles traveled during peak travel periods.	***Consistent.*** Buildout of the Specific Plan would provide new job opportunities to residents in the region and maintain the jobs/housing balance. The proposed Project would reduce commutes to surrounding areas and reduce vehicle miles traveled associated with longer commutes. Although the Specific Plan Area is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires the Project to provide funding for the installation of a bus shelter on Alessandro Boulevard. See Section 4.15, Transportation, of this EIR for more discussion.
Goal 10: Regulate the travel of trucks on March JPA planning area streets.	***Consistent.*** The Project is designed to accommodate truck traffic. As described in Chapter 3, Project Description, and **PDF-TRA-2**, truck routes are proposed along Cactus Avenue to I-215, as well as along Linebacker Drive, Arclight Drive, Airman Drive, and Bunker Hill Drive (Figure 3-4, Proposed Truck Routes). Truck access would not be permitted along Barton Street. Cactus Avenue will not extend west of Airman Drive to Barton Street; however, a gated emergency vehicle access (EVA) only connection will be maintained and not be accessible by any vehicular traffic. To enforce the utilization of the approved truck routes, March JPA contracts with the Sheriff's Department for 40 hours of patrol service per week and truck route enforcement paid through an existing truck route mitigation fund. See Section 4.15, Transportation, of this EIR for discussion.
Goal 11: Adequate off-street parking for all land uses shall be provided which requires adequate on-site parking to prevent spill over on the adjacent street system.	***Consistent.*** Proposed parking lots associated with the Specific Plan's buildout would be reviewed and approved by March JPA's planning and engineering staff during the plan check and permitting process in accordance with the development standards outlined in the Specific Plan. See the West Campus Upper Plateau Specific Plan for more details on off-street parking standards.
Goal 12: Plan for and seek to establish and areawide system of bicycling trails, with linkages within the planning area and with adjacent	***Consistent.*** The Specific Plan Area would include a roadway network that would provide for bicycle lanes on all streets. See Section 4.15, Transportation, of this EIR

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
jurisdictions, and in compliance with sub-regional plans.	for more discussion on the Project's compatibility with the circulation system.
Goal 13: Promote, preserve, and protect the joint use of the aviation field by the Air Force Reserves and civilian aviation.	***Consistent.*** The Specific Plan Area is located within Compatibility Zones C1 and C2 of the March ARB/Inland Port Airport. The uses proposed within the Specific Plan Area are all consistent with allowable uses in Compatibility Zones C1 and C2 and would therefore not have any negative effects on the operation of the joint use of the aviation field. See discussion within this Section under Riverside County Airport Land Use Compatibility Plan for consistency analysis with the ALUCP. As further discussed below, the FAA determined the proposed structures do not exceed obstruction standards and would not be a hazard to air navigation, subject to conditions which have been included as **PDF-HAZ-1**, discussion below and in Section 4.8, Hazards and Hazardous Materials, of this EIR (Appendix L). No substantial adverse effect on the safe and efficient utilization of navigable airspace by aircraft or on the operation of air navigation facilities. Furthermore, see Section 4.8, Hazards and Hazardous Materials, and Section 4.11, Noise, of this EIR for more discussion.
Goal 14: Goods movement through the San Jacinto Rail Branchline shall be capitalized.	***Consistent.*** Implementation of the Specific Plan would not inhibit this goal as the Project site is not located near the San Jacinto Rail Branchline. Therefore, the Project would not affect the goods movement.
Goal 15: In accordance with state and federal law, promote and provide mobility for the disabled.	***Consistent:*** Development plans and public improvement plans would comply with the accessibility requirements of the Americans with Disabilities Act. This goal would not be inhibited by the implementation of the Specific Plan.
Noise	
Goal 1: Ensure that land uses are protected from excessive and unwanted noise.	***Consistent.*** Specific Plan Area development would be consistent with the land use limitations established in the Riverside County ALUCP (as demonstrated below). See Section 4.11, Noise, of this EIR for more discussion.
Goal 2: Minimize incompatible noise level exposures throughout the planning area, and where possible, mitigate the effect of noise incompatibilities to provide a safe and healthy environment.	***Partially Consistent.*** As demonstrated in the Section 4.11, Noise, the Project would result in less than significant impacts related to construction and operational activities associated with the Specific Plan Area buildout. However, the Project would result in significant and unavoidable impacts related to traffic noise increases along Cactus Avenue east of Meridian Parkway (Segment #13 – non-sensitive land use). No feasible mitigation measures are available to reduce this impact to a less than significant level. However, the Project would be consistent with the land use limitations established in the ALUCP. See discussion within this Section under Riverside County Airport Land Use Compatibility Plan for consistency

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	analysis with the ALUCP as well as Appendix L. See Section 4.11, Noise, of this EIR for more discussion.
Goal 3: Work toward the reduction of noise impacts from vehicular traffic, and aviation and rail operations.	***Partially Consistent***. [As further described in Section 4.11, Noise, of this EIR, the Project would result in significant and unavoidable impacts related to traffic noise level increases along Cactus Avenue east of Meridian Parkway (Segment #13 – non-sensitive land use). No feasible mitigation measures exist to reduce this impact. However, all other noise impacts associated with the construction and operation of the Specific Plan Area would be less than significant. Therefore, the Project would conflict with this goal specifically related to vehicular traffic. No aviation or rail operations are proposed for the Project's use. As such, the Project would be partially consistent with this goal for reducing noise impacts.
Air Quality	
Goal 2: Reduce emissions associated with vehicle miles traveled by enhancing the jobs/housing balance of the subregion of Western Riverside County.	***Partially Consistent.*** The Specific Plan Area provides employment opportunities to continue to address the jobs/housing balance in western Riverside County. Residents could work locally, rather than commute to surrounding areas. Reduced commutes would result in reductions in total vehicle miles traveled, thus reducing air emissions. Although the Specific Plan Area is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires the Project to provide funding for the installation of a bus shelter on Alessandro Boulevard. However, as demonstrated in Section 4.2, Air Quality, the Project would exceed regional thresholds of significance for operational emissions. The majority of the Project's operational emissions would be derived from the mobile sources, thus resulting in significant and unavoidable impacts even with the incorporation of **MM-AQ-2** through **MM-AQ-15**. See Section 4.2, Air Quality, and Section 4.15, Transportation, of this EIR for more discussion.
Goal 3: Reduce air pollution through proper land use, transportation, and energy use planning.	***Partially Consistent.*** As detailed in Section 4.7, Greenhouse Gas Emissions, of this EIR, the Specific Plan is anticipated to result in less than significant GHG impacts with **MM-GHG-1** through **MM-GHG-11** incorporated. As discussed in Section 4.2, Air Quality, the

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	Project's operational-source emissions are anticipated to exceed the regional thresholds of significance for VOC, NOx, CO, and PM_{10} emissions. **MM-AQ-2** through **MM-AQ-15** are designed to reduce Project operational-source VOCs, NOx, CO, and PM_{10} emissions. However, because the effects of these mitigation measures cannot be meaningfully quantified, impacts would be significant and unavoidable. Therefore, the Project would have the potential to conflict with the AQMP, and the Project would conflict with this goal to reduce air pollution through land use, transportation, and energy use planning. However, the proposed Project would provide employment opportunities to western Riverside County, and as detailed in Section 4.12, Population and Housing, the Project would maintain the County's balanced jobs-to-housing ratio. As such, residents could work locally, rather than commute to surrounding areas. Reduced commutes would result in reductions in total vehicle miles traveled, thus reducing air emissions. Although the Specific Plan Area is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires the Project to provide funding for the installation of a bus shelter on Alessandro Boulevard. All impacts transportation-related and energy-related impacts would be less than significant or reduced to a level below significance, as further described in Section 4.5, Energy, and 4.15, Transportation, of this EIR.
Goal 4: Pursue reduced emissions for stationary and mobile sources through the use and implementation of new and advancing technologies.	***Consistent:*** As detailed in Section 4.2, Air Quality, **MM-AQ-3** requires tenants receive documentation on funding opportunities, such as the Carl Moyer Program, which provide incentives for using cleaner-than-required engines and equipment. **MM-AQ-8** requires tenants to use alternative-fueled trucks and/or apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1B, SmartWay Finance, or other similar funds. **MM-AQ-10** requires loading docks compatible with SmartWay trucks. **MM-AQ-15** requires installation of main electrical supply lines and panels have been sized to support heavy truck charging facilities when these trucks become available. As detailed in Section 4.7, GHG Emissions, **MM-GHG-1** through **MM-GHG-10** will ensure

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	building efficiencies and compliance with the County Climate Action Plan. See Section 4.2, Air Quality, and Section 4.7, GHG Emissions of this EIR for more discussion.
Goal 5: Maximize the effectiveness of air quality control programs through coordination with other governmental entities.	***Consistent:*** As discussed in Section 4.2, Air Quality, the Project's operational-source emissions are anticipated to exceed the regional thresholds of significance for VOC, NOx, CO, and PM_{10} emissions. **MM-AQ-2** through **MM-AQ-15** are designed to reduce Project operational-source VOCs, NOx, CO, and PM_{10} emissions. However, because the effects of these mitigation measures cannot be meaningfully quantified, impacts would be significant and unavoidable. Therefore, the Project would have the potential to conflict with the AQMP, and the Project would conflict with this goal. However, the proposed Project would provide employment opportunities to western Riverside County, and as detailed in Section 4.12, Population and Housing, the Project would maintain the County's balanced jobs-to-housing ratio. As such, residents could work locally, rather than commute to surrounding areas. Reduced commutes would result in reductions in total vehicle miles traveled, thus reducing air emissions. See Section 4.2, Air Quality, of this EIR for more discussion.
Goal 6: Reduce emissions associated with vehicle/engine use.	***Partially Consistent:*** The Project's operational-source emissions are anticipated to exceed the regional thresholds of significance for VOC, NOx, CO, and PM_{10} emissions, as detailed in Section 4.2, Air Quality. **MM-AQ-2** through **MM-AQ-15** are designed to reduce Project operational-source emissions; however, because the effects of these mitigation measures cannot be meaningfully quantified, impacts would be significant and unavoidable. However, the Project would maintain a balanced job/housing ratio for Riverside County. Increasing jobs in the Project site's vicinity would provide an opportunity for residents to work locally, rather than commute to other surrounding areas. A balanced jobs/housing ratio would help reduce vehicle miles traveled, and ultimately help reduce emissions associated with vehicle use. See Section 4.2, Air Quality, of this EIR for more discussion.
Goal 7: Reduce emissions associated with energy consumption.	***Consistent:*** Development within the Project would comply with this goal by utilizing energy-efficient equipment and design. Additionally, implementation would include energy conservation features and recycling programs, such as drought-resistant vegetation. **MM-GHG-1** requires the Project to install solar generation sufficient to produce 30% of the Project's energy usage and **MM-GHG-7** requires the installation of at least 20 EV chargers. As

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	demonstrated in Section 4.5, Energy, all energy-related impacts would be less than significant, and no mitigation is required. See Section 4.5, Energy, for more discussion on energy consumption.
Goal 8: Reduce air pollution emissions and impacts through siting and building design.	***Consistent:*** Development within the Project would comply with this goal. Implementation would include the use of low-polluting construction materials and coatings along with separation of sensitive receptors from pollutant emissions. As demonstrated in Section 4.2, Air Quality, construction-related air quality impacts would be less than significant with **MM-AQ-1** incorporated. The Project would be consistent with the County's Good Neighbor Policy for Logistics and Warehouse/Distribution Uses. See Section 4.2, Air Quality, of this EIR for more discussion.
Goal 9: Reduce fugitive dust and particulate matter emissions.	***Partially Consistent:*** The Project operational emissions would exceed regional thresholds of significance established by the SCAQMD for VOC, NOx, CO, and PM_{10} emissions. The majority of the Project's operational emissions would be derived from the mobile sources. The Project would implement **MM-AQ-2** through **MM-AQ-15** to reduce these impacts however, because the effects of these mitigation measures cannot be meaningfully quantified, impacts would be significant and unavoidable. The Project would be required to comply with existing regulations governing fugitive dust such as SCAQMD Rule 403, Fugitive Dust, which would help reduce impacts related to the Project. See Section 4.2, Air Quality, of this EIR for more discussion.
Housing	
The March JPA General Plan limits residential land uses within the March JPA planning area because housing is incompatible with airfield uses adjacent to the planning area. The proposed Project does not include residential land uses. As such, the proposed Project is consistent with the objectives established in the March JPA General Plan and re-establishes jobs lost from the March AFB realignment. The proposed Project maintains consistency with the General Plan's absence of a residential land use designation within the planning area.	
Resource Management Element	
Goal 1: Conserve and protect surface water, groundwater, and imported water sources.	***Consistent***. Specific Plan Area development would be required to comply with the Construction General Permit, including implementation of a Storm Water Pollution Prevention Plan, to avoid impacts of stormwater discharges during construction. The Project would be constructed to minimize impacts to existing drainage channels. Impacts to water quality and hydrology would be potentially significant. However, with the incorporation of **MM-HYD-2** (Water Quality Management Plan) and **MM-HYD-3** (Hydrology/Drainage Study) would reduce impacts to a less than significant level. Incorporation of lot-specific, post-construction Low-Impact Development

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	Best Management Practices, as outlined in **MM-HYD-2**, would ensure effective control of incidental releases to the environment of pollutants of concern associated with the Project's proposed land uses, such as sediment, oil and grease, nutrients, heavy metals, and certain pesticides. Similarly, the completion of lot-specific hydrology/drainage reports, as outlined in **MM-HYD-3**, would prevent flooding, and prevent adverse impacts to downstream drainage facilities by incorporating stormwater detention infrastructure, such as detention tanks and basins. For more discussion, see Section 4.9, Hydrology and Water Quality, of this EIR. For discussion on adequate water supplies, see Section 4.17, Utilities and Service Systems, of this EIR.
Goal 2: Control flooding to reduce major losses of life and property.	***Consistent***. Buildout of the Specific Plan would result in increased impervious surfaces within the Specific Plan Area as well as include future improvements that properly capture, control, and maintain stormwater as required by existing regulations. Impacts to water quality and hydrology are determined to be potentially significant. **MM-HYD-3** would require the preparation of a Hydrology/Drainage Study prior to issuance of a grading permit for individual development projects. Incorporation of this mitigation measure would reduce impacts to a less than significant level. See discussion within Section 4.9, Hydrology and Water Quality, of this EIR for potential impacts related to flooding.
Goal 3: Conserve and protect significant land forms, important watershed areas, mineral resources and soil conditions.	***Consistent.*** Impacts related to geology and soils are potentially significant. However, incorporation of **MM-GEO-1**, which requires compliance with the Project Geotechnical Report to ensure slope stability and erosion control during construction, would reduce impacts to a less than significant level. In addition, as discussed in Section 4.9, Hydrology and Water Quality, implementation of soil stabilization measures, as outlined in **MM-HYD-1**, would ensure effective control of potential soil erosion following grading and prior to construction on individual lots, such that impacts to surface water quality from the Project would be less than significant after mitigation incorporated. For discussion related to landforms and soil conditions, see Section 4.6, Geology and Soils. For discussion on important watershed areas, see Section 4.9, Hydrology and Water Quality, of this EIR. Finally, no impacts to mineral resources are anticipated to occur, as further discussed in Appendix A, Initial Study, of this EIR.
Goal 4: Conserve energy resources through use of available energy technology and conservation practices.	***Consistent.*** As appropriate, the proposed Project would comply with applicable regulations relating to energy conservation. As detailed in Section 4.7, GHG Emissions, **MM-GHG-1** through **MM-GHG-10** will conserve energy

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	resources by ensuring building efficiencies and compliance with the County Climate Action Plan. Specifically, **MM-GHG-1** requires the Project to install solar generation sufficient to produce 30% of the Project's energy usage and **MM-GHG-7** requires the installation of at least 20 EV chargers. As demonstrated in Section 4.5, Energy, all energy-related impacts would be less than significant, and no additional mitigation is required. See Section 4.5, Energy, of this EIR for more discussion.
Goal 5: Conserve and protect significant stands of mature trees, native vegetation, and habitat within the planning area.	***Consistent.*** The Project includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). Implementation of the Specific Plan Area could significantly impact mature trees, native vegetation, and habitat within the planning area. As demonstrated in Section 4.3, Biological Resources, impacts to biological resources were determined to either result in no impact, less than significant, or less than significant with **MM-BIO-1** through **MM-BIO-9** incorporated. See Section 4.3, Biological Resources, of this EIR for more discussion.
Goal 6: Provide and effective and efficient waste management system for solid and hazardous wastes that is financially and environmentally responsible.	***Consistent.*** The proposed Project would comply with appropriate and applicable regulations and standards with respect to the management of solid and hazardous wastes, as discussed in Section 4.8, Hazards and Hazardous Materials. Impacts related to hazardous materials are potentially significant. However, incorporation of **MM-HAZ-1** through **MM-HAZ-3** would reduce impacts to a less than significant level. See Section 4.8, Hazards and Hazardous Materials, of this EIR for more discussion.
Goal 7: Promote cultural awareness through preservation of the planning area's historic, archaeological, and paleontological resources.	***Partially Consistent.*** Development within the Project would result in potentially significant impacts to historic, archaeological, and paleontological resources. As detailed further in Section 4.4, Cultural Resources, even with the application of **MM-CUL-1** through **MM-CUL-9**, the Project would result in significant and unavoidable impacts to historical and archaeological resources. Impacts to paleontological resources would be potentially significant. However, incorporation of **MM-GEO-2**, which requires monitoring for paleontological resources, would reduce impacts to a less than significant level. For more discussion, see Section 4.4, Cultural Resources, and Section 4.6, Geology and Soils, of this EIR.
Goal 8: Develop and maintain recreational facilities as economically feasible, and to meet the needs of the community for recreational activities, relaxation, and social interaction.	***Consistent.*** The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The Project would result in less than significant impacts relative to recreation; as

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	such, no mitigation measures are required. See Section 4.14, Recreation, of this EIR for more discussion.
Goal 9: Create a network of open space areas and linkages throughout the planning area that serves to preserve natural resources, protect health and safety, contributes to the character of the community, provide active and passive recreational use, as well as visual and physical relief from urban development.	***Consistent.*** The Project includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S), which would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. The currently existing service roads within the Conservation Easement, as depicted by the red lines on Figure 3-4, would continue to be utilized by the public for passive recreation as authorized by the March JPA. The Project also includes a 60.28-acre Park west of the Barton Street extension. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users, which further buffers the existing residential uses to the west of the site.
Goal 10: Establish standards for scenic corridors, trails and vistas that contribute to the quality of the planning area.	***Consistent.*** This Project would result in changes to the visual character of the Project site. As demonstrated in Section 4.1, Aesthetics, the Project would result in less than significant impacts related to scenic vistas and visual character. No mitigation is required. See Section 4.1, Aesthetics, of this EIR for more discussion.
Safety/Risk Management Element	
Goal 1: Minimize injury and loss of life, property damage, and other impacts caused by seismic shaking, fault rupture, ground failure, and landslides.	***Consistent***. All development within the Project would be designed and constructed in accordance with applicable standards of the California Building Code and, through incorporation of **MM-GEO-1,** consistent with recommendations contained in the Project Geotechnical Report. Impacts related to seismic shaking and associated geologic concerns would be less than significant mitigation incorporated. See Section 4.6, Geology and Soils, for more discussion.
Goal 2: Minimize grading and otherwise changing the natural topography, while protecting the public safety and property from geologic hazards.	***Consistent.*** Project construction would include all rough grading, including removal of 14 of the existing bunkers and infrastructure throughout the entire Specific Plan Area. Grading throughout the buildout of the Specific Plan Area would incorporate specific development standards and mitigation measures to reduce impacts to aesthetics and cultural resources. See Section 4.1, Aesthetics, and 4.4, Cultural Resources, for more discussion. All development within the Project would be designed and constructed in accordance with applicable standards of the California Building Code and, through incorporation of **MM-GEO-1,** consistent with recommendations contained in the Project Geotechnical Report. See also Section 4.6, Geology and Soils, for more discussion on grading

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
	recommendations and potential public safety/geologic hazards during construction activities.
Goal 3: Minimize injury, loss of life, property damage, and economic and social disruption caused by flood hazards.	***Consistent***. The proposed Project would provide a number of drainage facilities to ensure flood hazards associated with the Specific Plan Area are managed in accordance with applicable regulations. Impacts to water quality and hydrology are determined to be potentially significant. As such, **MM-HYD-2** would incorporate a Water Quality Management Plan during operational activities. Additionally, **MM-HYD-3** would require the preparation of a Hydrology/Drainage Study prior to issuance of a grading permit for individual development projects. Incorporation of these mitigation measures would reduce impacts to a less than significant level. See Section 4.9, Hydrology and Water Quality, of this EIR for discussion on the Project site's potential risk associated with flood hazards.
Goal 4: Reduce threats to public safety and protect property from wildland and urban fire hazards.	***Consistent.*** The Project site is not located within a Very High Fire Hazard Severity Zone identified by the California Department of Forestry and Fire Protection (see Section 4.18, Wildfire, of this EIR for more discussion). All potentially significant wildfire impacts would be reduced to less than significant levels with implementation of **PDF-FIRE-1** through **PDF-FIRE-4** and mitigation measures **MM-FIRE-1** and **MM-HYD-3**. As such, buildout of the Specific Plan would not result in people and structures at risk of wildland and urban fire hazards. Additionally, the Project would comply with all applicable regulations and guidelines relating to brush management and fire protection services.
Goal 5: Reduce the potential for hazardous material exposure or contamination in the planning area.	***Consistent.*** The proposed Project would comply with regulations and guidelines relating to hazardous material exposure/contamination, including the March JPA Development Code, California Occupational Safety and Health Administration, as detailed in Section 4.8, Hazards and Hazardous Materials, of this EIR. Impacts related to hazardous materials are potentially significant. However, incorporation of **MM-HAZ-1** through **MM-HAZ-3** would reduce impacts to a less than significant level.
Goal 6: Ensure to the fullest extent practical that, in the event of a major disaster critical structures and facilities remain safe and functional.	***Consistent.*** The proposed Project would comply with regulations and guidelines related to the functionality of critical structures in the event of a major disaster. It was determined within the Initial Study (Appendix A) that the Project would result in a less than significant impact related to impairing the implementation of, or physically interfering with, an adopted emergency response plan or emergency evacuation plan.

Table 4.10-1. Project Consistency with March JPA General Plan Goals

Goal/Policy	Consistency Analysis
Land Use Element	
Goal 7: Reduce the possible risk of upset, injury and loss of life, property damage, and other impacts associated with an aviation facility.	***Consistent.*** Development within the Project would be consistent with the Riverside County ALUCP. See discussion within this Section under Riverside County Airport Land Use Compatibility Plan for consistency analysis with the ALUCP as well as Appendix L. As further discussed below, the FAA determined the proposed structures do not exceed obstruction standards and would not be a hazard to air navigation. No substantial adverse effect on the safe and efficient utilization of navigable airspace by aircraft or on the operation of air navigation facilities.
Goal 8: Plan for emergency response and recovery from natural and urban disasters.	***Consistent.*** The proposed Project would not physically interfere with emergency routes. Implementation of the Specific Plan would be consistent with the March Area Emergency Resource Guide. It was determined within the Initial Study (Appendix A) that the Project would result in a less-than-significant impact related to impairing the implementation of, or physically interfering with, an adopted emergency response plan or emergency evacuation plan.

Source: March JPA 1999

As shown in Table 4.10-1, the Project would be partially consistent with some of the goals identified in the March JPA General Plan. However, where appropriate, mitigation measures are included to reduce and/or avoid potential conflicts with applicable goals adopted for the purpose of avoiding or mitigating an environmental effect. As such, impacts related to consistency with the March JPA General Plan would be **less than significant with mitigation incorporated**.

March JPA Development Code

As mentioned previously, and as shown in Figure 3-3, the Project site is located within a portion of March JPA property that has not yet been zoned. Implementation of the Project would require the approval of zoning designations, which would be consistent with the proposed Specific Plan.

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

The proposed Project includes a Specific Plan (SP-9) consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13 containing development standards, design guidelines, infrastructure master plans, maintenance responsibilities, phasing schedule, and implementation procedures necessary to develop the Specific Plan Area consistent with the requested General Plan Amendment designations. The proposed Specific Plan addresses land uses, zoning, and design guidelines. When a specific plan is adopted in accordance with the procedure outlined above, the specific plan may effectively supersede portions or all of the current zoning regulations for specified parcels or plan area and becomes an independent set of zoning regulations that provide specific direction to the type and intensity of uses permitted and may define other types of design and permitting criteria. As such, the proposed Specific Plan

would be adopted by ordinance and serve as the primary zoning document for the Project site. Where the Specific Plan is silent, the relevant sections and requirements of the March JPA Development Code would apply.

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Campus Development would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facility parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Specific Plan Area also includes 60.28-acre Park west of the Barton Street extension. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. Infrastructure improvements include installation of utility and roadway networks connecting to and throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank.

Adoption of the proposed Specific Plan would help facilitate consistency with the March JPA Development Code. In addition, the Project requests the approval of a tentative parcel map, two plot plans, an amendment to the disposition and development agreement, a development agreement, and other discretionary entitlements that are required by the March JPA Development Code for implementation. Therefore, upon approval of the proposed Project, the Specific Plan would be consistent with the March JPA Development Code for the purposes of avoiding or mitigating environmental effects. As such, impacts would be **less than significant**.

Conservation Easement

The Conservation Easement would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. No new development would occur within this area, and the Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). The Project would designate this area as Open Space – Conservation. Moreover, as no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to consistency with the March JPA Development Code.

Riverside County Airport Land Use Compatibility Plan

The Project site is located within Zones B1, B2, C1, and C2 of the ALUCP (see Figure 4.10-2, ALUC Compatibility Map), which encompasses areas of moderate to high noise factors and moderate to high risk level for safety and airspace protection factors (Mead & Hunt 2014). Zone B1 allows for 100 people per one acre and a maximum of 50% lot coverage within APZs. Zone B2 allows for 250 people per one acre, and an average land use intensity of 100 people per acre. Zone C1 allows single-acre land use intensities of up to 500 people, and an average land use intensity of 100 people per acre. Zone C2 allows for an average of 200 people per acre or 500 people for one acre.

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

As detailed above in Section 4.10.2, Riverside County ALUC prohibits certain land uses within Zones C1 and C2 of the ALUCP, including, but not limited to: children's schools, day care centers, libraries; hospitals, congregate care facilities, places of assembly; noise-sensitive outdoor nonresidential uses; and hazards to flight. These regulations are established to ensure safety due to proximity with the airport. As outlined in Chapter 3 of this EIR and Table 3-1 of the Specific Plan, none of the prohibited land uses are proposed within the Campus Development.

The Campus Development encompasses 291.6 acres, with an additional 17.72 acres of open space. The Campus Development is within Zones C1 and C2 of the ALUCP. The Campus Development would result in approximately 2,600 employees during operation. This would average approximately 9 people per acre[1] within the Campus Development. As such, the proposed Project would introduce a persons-per-acre ratio well below the allowed land use intensities in all ALUCP zones overlapping with the Project site (see Figure 4.10-2). Additionally, the Project would incorporate **PDF-HAZ-1**, to ensure compliance with ALUC's conditions (see Section 4.8, Hazards and Hazardous Materials, for more details).

The 60-acre Park is located in ALUCP Zone C2 and, based on the analyzed amenities, is unlikely to exceed an average of 200 people per acre or 500 people for one acre. The Infrastructure Improvements are not anticipated to have full-time employees and will comply with the ALUCP's person/acre ratio.

As detailed above, the Specific Plan identifies industrial, business park, and mixed-use land uses within the Campus Development. The Specific Plan also includes development standards limiting structures to a maximum building height of 50 feet for Business Park, Mixed Use and Industrial parcels (buildings within 800 feet of residential uses are limited to a maximum height of 45 feet; for more discussion, see Section 4.1, Aesthetics, of this EIR). As such, the Project would not include uses such as children's schools, or highly noise-sensitive outdoor nonresidential uses, and would not include buildings greater than 70 feet tall or other structures that would be a hazard to flight. Moreover, the Project has been determined consistent with the ALUCP by the Riverside County Airport Land Use Commission, subject to conditions which have been included as **PDF-HAZ-1** (see Section 4.8, Hazards and Hazardous Materials, of this EIR for more details). Any changes to the Project would be subject to future review and consideration at the discretion of the ALUC director, per the conditions outlined in the Project's consistency determination (Appendix L).

Additionally, the Specific Plan demonstrates compliance with building height regulations within the vicinity of a runway, in compliance with Federal Aviation Regulations (FAR) Part 77. FAR Part 77 provides guidelines for proposed construction by issuing a determination of hazard to air navigation. Implementation of the Specific Plan would be required to comply with these regulations and determinations in order to be consistent with the ALUCP. Figure 4.10-2, ALUC Compatibility Map, illustrates the Project site's location within each zone and Section 4.10.2, above, outlines specified height conditions required for review. On May 16, 2022, the Riverside County Airport Land Use Commission determined the proposed Project would be consistent with the ALUCP and subjected future development to conditions to help achieve consistency and reduce potential impacts (Appendix L). In addition, the FAA issued a determination of no hazard to air navigation on April 29, 2022, based on aeronautical studies prepared by FAA under the provisions of 49 U.S.C., Section 44718. The studies determined the proposed structures do not exceed obstruction standards and would not be a hazard to air navigation. No substantial adverse effect on the safe and efficient utilization of navigable airspace by aircraft or on the operation of air navigation facilities.

Given the above, the Riverside County Airport Land Use Commission has determined the Specific Plan would be consistent with the ALUCP. Therefore, the Specific Plan would not conflict with the Riverside County ALUCP, and impacts would be **less than significant**. No mitigation is required.

Conservation Easement

As shown in Figure 3-4, the Conservation Easement surrounds the proposed Specific Plan Area and includes a majority of the eastern portion of the Project site. Figure 4.10-2 illustrates the eastern portion of the Conservation

[1] 2600 employees divided by 291.60 acres = 8.92 (9 people)

Easement is located within land use compatibility zones with more restrictions and limitations (i.e., Zones B1 and B2). As no physical alteration to the Conservation Easement is proposed, there would be **no impact** with respect to consistency with the ALUCP.

4.10.5 Mitigation Measures

As demonstrated throughout this EIR, significant and unavoidable impacts would occur even with the incorporation of **MM-AQ-2** through **MM-AQ-15** and **MM-CUL-1** through **MM-CUL-9**. In addition, the Project would result in significant and unavoidable impacts related to traffic noise increases along Cactus Avenue east of Meridian Parkway (Segment #13 – non-sensitive land use). No feasible mitigation measures are available to reduce this impact to a less than significant level.

However, as demonstrated in the consistency analysis above, and with the incorporation of Project Design Features identified in Chapter 3, Project Description, as well as **MM-AQ-1** through **MM-AQ-15**, **MM-BIO-1** through **MM-BIO-9**, **MM-GEO-1**, **MM-GEO-2**, **MM-GHG-1** through **MM-GHG-11**, **MM-HAZ-1** through **MM-HAZ-3**, **MM-HYD-1** through **MM-HYD-3**, **MM-TRA-1** and **MM-TRA-2**, and **MM-FIRE-1** through **MM-FIRE-3,** land use conflicts with plans adopted for the purpose of avoiding or mitigating an environmental effect would not occur, and as such, impacts would be **less than significant with mitigation incorporated.**

4.10.6 Level of Significance After Mitigation

With the incorporation of mitigation, as discussed above, the Project would not result in conflicts with existing applicable land use plans and policies adopted for the purpose of avoiding or mitigating an environmental effect. As such, with mitigation, the Project would result in **less than significant** land use impacts.

4.10.7 Cumulative Effects

The proposed Project requests a General Plan Amendment, Specific Plan, Zoning Amendment, Vesting Tentative Tract Map, two Plot Plans, and a Development Agreement to redevelop the former munitions bunkers of the March AFB and establish a conservation easement. As demonstrated above, the proposed Project would result in conflicts with existing applicable land use plans and policies adopted for the purpose of avoiding or mitigating an environmental effect, such as air quality, cultural resources, and noise.

Table 4-1, Related Projects, within Chapter 4, Environmental Analysis, of this EIR includes a list of cumulative development proposals within the vicinity of the Project site. Proposed future cumulative projects will undergo an evaluation for consistency with local land use policies, as the proposed Project has done above. Planned future development identified in Table 4-1 has been anticipated in the General Plans prepared by the local jurisdictions surrounding the Project site or through the General Plan Amendment process. As demonstrated in the analysis above, with incorporation of mitigation, the Project would not result in significant and unavoidable land use impacts through conflicts with plans adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the proposed Project, when viewed in context with the cumulative development proposals, is not expected to result in adverse cumulative land use impacts. Therefore, the proposed Specific Plan is expected to result in **less than cumulatively considerable** land use impacts.

4.10.8 References Cited

March JPA (Joint Powers Authority). 1999a. "General Plan of the March Joint Powers Authority" [PDF]. Accessed September 2021. https://www.marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

March JPA. 1999b. *Master Environmental Impact Report for the General Plan of the March Joint Powers Authority*. Final. SCH No. 97071095. September 1999. http://www.marchjpa.com/docs_forms/eir.pdf.

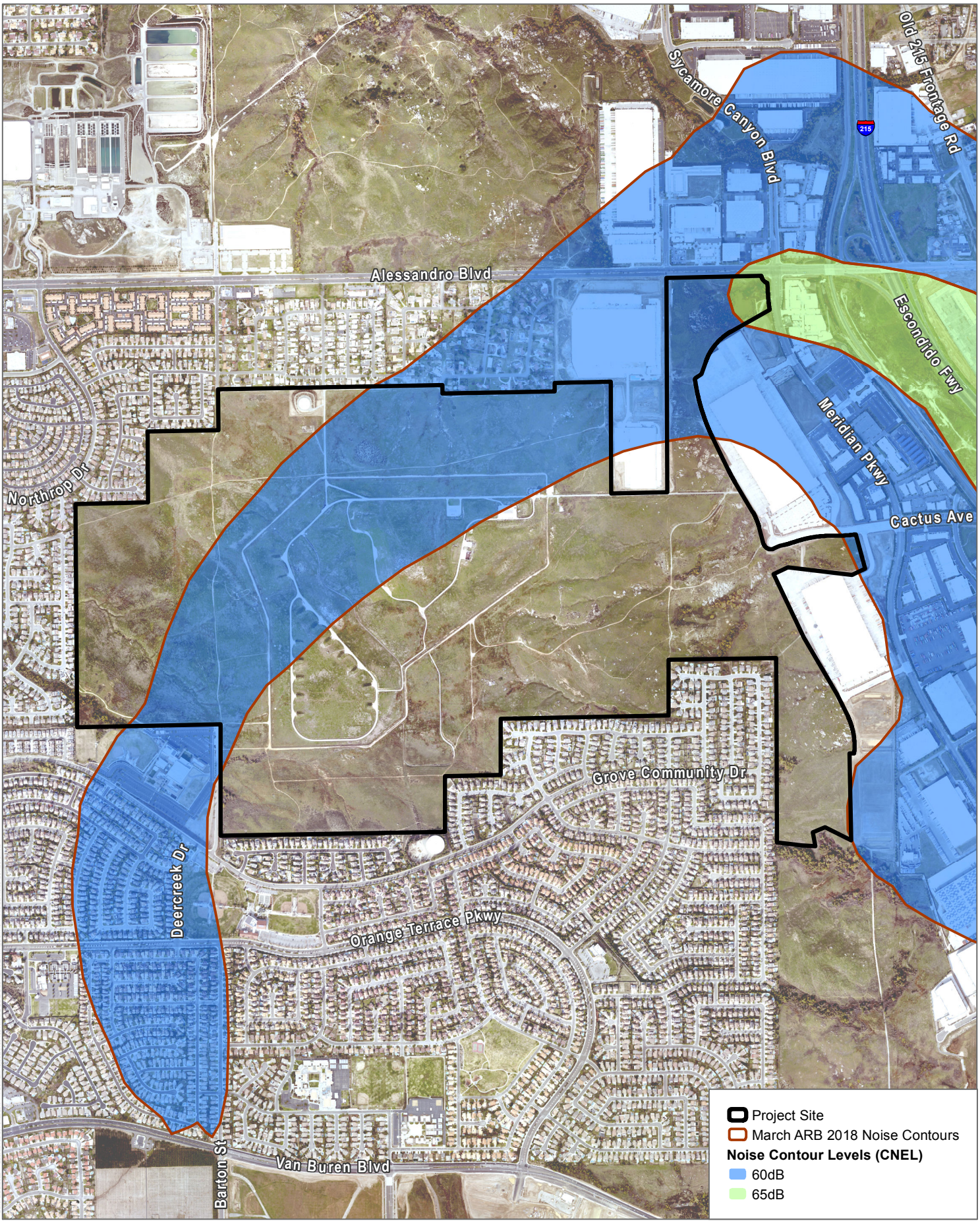
Mead & Hunt. 2014. "March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan" [PDF]. Adopted by Riverside County Airport Land Use Commission November 13, 2014. Accessed October 2022. http://www.rcaluc.org/filemanager/plan/march_ARB/17%20- %20Vol.%201%20 March%20Air%20Reserve%20Base%20Final.pdf.

Meridian (Meridian Park LLC). 2023. *West Campus Upper Plateau Specific Plan No. 21-01 (SP-9).* Prepared for March JPA. Developed by Meridian Park LLC; prepared by T&B Planning, Inc. January 6, 2023.

Riverside County ALUC (Airport Land Use Commission). 2014. *March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan*. Adopted by Riverside County Airport Land Use Commission November 13, 2014.

SCAG (Southern California Association of Governments). 2020. *The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, Connect SoCal.* https://www.connectsocal.org/Documents/Adopted/fConnectSoCal-Plan.pdf.

WRCOG (Western Riverside Council of Governments). 2020. "About WRCOG" [webpage]. Accessed November 4, 2022. https://wrcog.us/152/About-WRCOG



SOURCE: Riverside County 2019; March Air Reserve Base Final AICUZ Study 2018

DUDEK

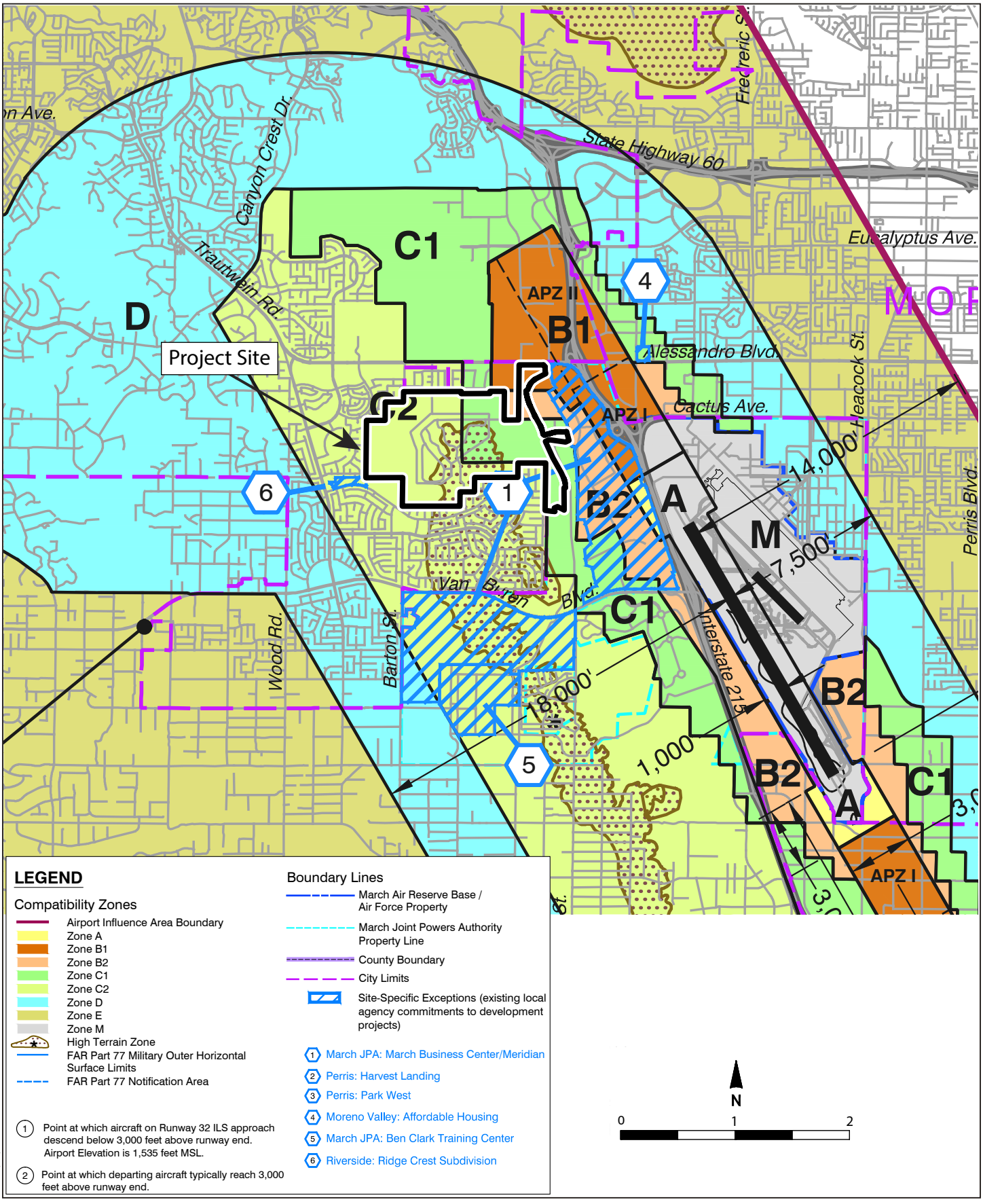
0 750 1,500 Feet

FIGURE 4.10-1

AICUZ Noise Contours

West Campus Upper Plateau EIR

INTENTIONALLY LEFT BLANK



SOURCE: Mead & Hunt 2014

FIGURE 4.10-2

ALUC Compatibility Map

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

4.11 Noise

This section of the Environmental Impact Report (EIR) describes the existing noise conditions of the proposed West Campus Upper Plateau Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Project.

This analysis is based on field noise measurements, traffic noise estimation using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model, construction noise emissions quantification based upon source noise levels from the FHWA Roadway Construction Noise Model, construction-related vibration level estimates based upon methods from the Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment, and operational noise levels prediction using CadnaA software (a noise prediction model), presented in the West Campus Upper Plateau Noise and Vibration Impact Analysis prepared by Urban Crossroads in October 2022, included as Appendix M of this EIR.

As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

The primary off-site Project noise source would be generation of vehicle trips on the area roadway network. The on-site Project-related noise sources are expected to include loading dock activity (including truck back-up alarm use and trailer refrigeration unit (TRU) operation), roof-top air conditioning, trash enclosure activity, parking lot vehicle movements, and truck movements. Noise and vibration sources during Project construction would include a combination of crawler tractors, excavators, graders, dozers, scrapers, forklifts, generator sets, welders, paving equipment, and air compressors. Project construction activities are not proposed to be conducted during the overnight period. While not specifically proposed, rock blasting may be required during grading operations to support Project construction, if bedrock material that cannot be ripped is encountered. The assessment of noise and vibration from potential blasting is evaluated at residences located closest to the construction zone boundary, to account for a worst-case scenario in which blasting is determined to be necessary and must be carried out at the edge of the construction zone boundary.

4.11.1 Existing Conditions

Acoustic Terminology

Noise Characteristics

Simply defined, noise is "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Noise is measured on the basis of sound pressure level, with the basic unit known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. Figure 4.11-1 presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

Range of Noise

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. Each interval of 10 dB indicates a sound energy 10 times greater than before, which is perceived by the human ear as being approximately twice as loud. The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is approximately at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. Figure 4.11-1 provides the noise levels associated with common activities. Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the noise equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in dBA. L_{eq} represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment.

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L_{50}, L_{25}, L_8, and L_2, are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50%, 25%, 8%, and 2%, respectively, of a stated time. Sound levels associated with the L_2 and L_8 typically describe transient or short-term events, while levels associated with the L_{50} describe the steady state (or median) noise conditions. While the L_{50} describes the mean noise levels occurring 50% of the time, the L_{eq} accounts for the total energy (average) observed for the entire hour. Therefore, the L_{eq} noise descriptor is generally 1 to 2 dBA higher than the L_{50} noise level. The maximum noise level which occurs during a given noise measurement period is denoted L_{max} and L_{min} denotes the minimum level recorded in that period.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the community noise equivalent level (CNEL), representing a composite 24-hour noise level is used. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time

periods during the evening and night hours when sound appears louder. Another 24-hour average, the day/night average sound level (expressed as L_{DN}), includes only the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. Calculated values using the CNEL versus L_{DN} methods rarely vary by more than 1 dBA, and these terms are therefore used interchangeably. CNEL (L_{DN}) does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The March Joint Powers Authority (JPA) relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance (Caltrans 1995). This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (e.g., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (e.g., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source, and an overall drop-off rate of 7.5 dB per doubling of distance from a point source.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (e.g., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

Shielding

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to a nearby residence. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the

vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of-sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure.

Traffic Noise Prediction

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway. Per the Highway Traffic Noise Analysis and Abatement Policy and Guidance (DOT 2011), the level of traffic noise depends on three primary factors: the volume of the traffic, the speed of the traffic, and the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, if the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also influence community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, roadway adjacent noise levels will increase.

Noise Control

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise or a stationary noise source in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source.

Land Use Compatibility with Noise/Noise Sensitive Land Uses

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. The land uses which can be easily affected by increased noise levels are referred to as noise-sensitive land uses. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages state and local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. For instance, major new commercial or industrial development with the potential to generate noise must avoid increasing the noise level experienced at noise-sensitive land uses in the Project vicinity.

Community Response to Noise

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance, including the following:

- Fear associated with noise producing activities
- Socio-economic status and educational level
- Perception that those affected are being unfairly treated
- Attitudes regarding the usefulness of the noise-producing activity
- Belief that the noise source can be controlled

Approximately 10% of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another 25% of the population will not complain even in very severe noise environments (EPA 1979). Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Surveys have shown that community response to noise varies from no reaction to vigorous action for newly introduced noises averaging from 10 dB below existing to 25 dB above existing. (FTA 2018). According to research originally published in the Noise Effects Handbook (EPA 1979), the percentage of high annoyance ranges from approximately 0% at 45 dB or less, 10% are highly annoyed around 60 dB, and increases rapidly to approximately 70% being highly annoyed at approximately 85 dB or greater.

Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown in Figure 4.11-2, Noise Level Increase Perception. An increase or decrease of 1 dB cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dB is considered barely perceptible, and changes of 5 dB are considered readily perceptible (DOT 2011).

Vibration

Per the FTA Transit Noise Impact and Vibration Assessment (FTA 2018), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals (Caltrans 2020). Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal.

A decibel notation of VdB is commonly used to denote "vibration" pressures in a medium other than air, to differentiate it from sound pressure in air (dB). Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures

(especially older masonry structures), people (especially residents, older adults, and sick), and vibration-sensitive equipment and/or activities.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (Caltrans 2019). Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Figure 4.11-3 illustrates common vibration sources and the human and structural response to ground-borne vibration.

Existing Noise Conditions

The Project site is located generally north of Van Buren Boulevard, east of Trautwein Road, south of East Alessandro Boulevard, and west of Meridian Parkway. Interstate (I) 215 is located roughly 1/2 mile east of the Project site. In addition, the March Air Reserve Base/Inland Port Airport (ARB/IPA) is located just over 1/2 mile east of the Project site across I-215. Noise levels at the Project site are influenced primarily by traffic along these adjacent roadways, and to a lesser extent by aircraft overflights associated with March ARB/IPA.

The noise contour boundaries associated with March ARB/IPA are found in the March Air Reserve Base Air Installations Compatible Uses Zones (AICUZ) published by the U.S. Air Force in 2018, which are presented herein on Figure 4.11-4, MARB/IPA Future Airport Noise Contours. Based on the 2018 AICUZ noise level contours for the March ARB/IPA, the Specific Plan Area is located mostly between the 60 to 65 dBA CNEL noise level contour boundaries which is considered normally acceptable for the proposed Project land uses. Existing residential land uses are located north, west and south of the Project site in the City of Riverside jurisdiction.

Ambient Noise Measurements

To assess the existing noise level environment, 24-hour noise level measurements were taken at eight locations within the public right-of-way throughout the Project study area on Thursday July 22, 2021 (Figure 4.11-5, Ambient Noise Measurement Locations). The receiver locations were selected to describe and document the existing noise environment within the Project study area. The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Based on recommendations of Caltrans (2013) and the FTA (2018), it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence (FTA 2018). In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels. Therefore, the noise level measurement locations accurately describe the background ambient noise levels necessary to assess the Project's incremental noise contributions.

The long-term noise measurements included recording of the average sound level each hour interval across a 24-hour period using Piccolo Type 2 integrating sound level meters. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise

levels in the "A" weighted network. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013 (Appendix M).

Table 4.11-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. The noise measurements results in Table 4.11-1 are reported as average or equivalent sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number.

Table 4.11-1. 24-Hour Ambient Noise Level Measurement Results

Location[1]	Corresponding Receiver(s)[2]	Description	Energy Average Noise Level (dBA L_{eq})[3]	
			Daytime	*Nighttime*
L1	R1, R10	Located north of the Project site near single-family residence at 7602 Greenock Way.	52.7	50.3
L2	R2	Located north of the Project site near single-family residence at 14210 Rancho Vista Road.	51.8	49.0
L3	R3	Located north of the Project site near single-family residence at 20630 Camino Del Sol.	50.0	46.5
L4	R4	Located south of the Project site near single-family residence at 20870 Indigo Point.	48.4	45.0
L5	R5, R6, R7	Located south of the Project site near single-family residence at 8256 Gardenia Vista Drive.	49.0	45.6
L6	N / A	Located south of the Project site near single-family residence at 8360 Clover Creek Road.	61.5	56.6
L7	R8	Located south of the Project site near The Grove Community Church at 19900 Grove Community Drive.	51.6	47.5
L8	R9	Located west of the Project site near single-family residence at 8079 La Crosse Way.	47.3	43.9

Notes:
1 See Figure 4.11-5 for the noise level measurement locations.
2 See Figure 4.11-6 for the noise sensitive receiver locations.
3 Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix M.
Daytime = 7:00 a.m. to 10:00 p.m.; Nighttime = 10:00 p.m. to 7:00 a.m.
N / A = Not Applicable

Receivers Established to Represent Project Vicinity Noise-Sensitive Land Uses

To assess the potential for long-term operational and short-term construction noise impacts, the following ten sensitive receiver locations, as shown in Figure 4.11-6, Noise Sensitive Receiver Locations, were identified as representative locations for analysis. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multifamily dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are

typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals. Sensitive receiver locations in the Project study area include residential uses and a church as described below; all distances are measured in a straight line from the Specific Plan Area boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site (refer to Figure 4.11-7). The Specific Plan Area boundary was used for analysis rather than the Project site boundary because no development or other noise-generating activities are proposed within the Conservation Easement.

As described above, the selection of receiver locations is based on FHWA guidelines, consistent with additional guidance provided by the California Department of Transportation (Caltrans) and the FTA. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise analysis will experience lower noise levels than those presented in this section due to the additional attenuation from distance and the shielding of intervening structures.

R1 Location R1 represents the existing noise sensitive residence at 20081 Camino Del Sol, approximately 44 feet north of the Project site in the unincorporated area of Riverside County. R1 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

R2 Location R2 represents the existing noise sensitive residence at 20351 Camino Del Sol, approximately 14 feet north of the Project site. R2 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3 Location R3 represents the existing noise sensitive residence at 20635 Camino Del Sol, approximately 15 feet north of the Project site in the unincorporated area of Riverside County. R3 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.

R4 Location R4 represents the existing noise sensitive residence at 20852 Indigo Point, approximately 29 feet south of the Project site in the City of Riverside. R4 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.

R5 Location R5 represents the existing noise sensitive residence at 20698 Iris Canyon Road, approximately 11 feet south of the Project site in the City of Riverside. R5 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

R6 Location R6 represents the existing noise sensitive residence at 8301 Clover Creek Road, approximately 34 feet south of the Project site in the City of Riverside. R6 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

R7 Location R7 represents the existing noise sensitive residence at 20304 Dayton Street, approximately 21 feet south of the Project site in the City of Riverside. R7 is placed in the private

outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

R8 Location R8 represents the existing noise sensitive Grove Community Church and preschool at 19900 Grove Community Drive, approximately 176 feet south of the Project site in the City of Riverside. R8 is placed on the Church's building façade facing the Project site. A 24-hour noise measurement was taken near this location, L7, to describe the existing ambient noise environment.

R9 Location R9 represents the existing noise sensitive residence at 8044 La Crosse Way, approximately 24 feet west of the Project site in the City of Riverside. R9 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L8, to describe the existing ambient noise environment.

R10 Location R10 represents the existing noise sensitive residence at 941 Saltcoats Drive, approximately 16 feet north of the Project site in the City of Riverside. R10 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

4.11.2 Relevant Plans, Policies, and Ordinances

Federal

Title 40 of the Code of Federal Regulations, Part 205, Subpart B

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under Title 40 of the Code of Federal Regulations, Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 50 feet from the vehicle pathway centerline, under specific test procedures. These controls are implemented through regulatory controls on truck manufacturers. There are no comparable standards for vibration, which tend to be specific to the roadway surface, the vehicle load, and other factors.

In 1972, the Noise Control Act (42 USC Section 4901 et seq.) was passed by Congress to promote noise environments in support of public health and welfare. It also established the U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control to coordinate federal noise control activities. The EPA established guidelines for noise levels that would be considered safe for community exposure without the risk of adverse health or welfare effects. The EPA found that to prevent hearing loss over the lifetime of a receiver, the yearly average L_{eq} should not exceed 70 dBA, and the L_{dn} should not exceed 55 dBA in outdoor activity areas or 45 dBA indoors to prevent interference and annoyance. However, in 1982, the EPA phased out the office's funding as part of a shift in federal noise control policy to transfer the primary responsibility of regulating noise to state and local governments. A bill is pending before Congress that would reestablish the Office of Noise Abatement and Control. The EPA retains authority to investigate and study noise and its effects, disseminate information to the public regarding noise pollution and its adverse health effects, respond to inquiries on matters relating to noise, and evaluate the effectiveness of regulations for protecting the public health and welfare.

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 recognize the guidelines adopted by the Office of Noise Control in the State Department of Health Services and shall quantify, to the extent practicable, current and projected noise levels for the following sources:

- Highways and freeways
- Primary arterials and major local streets
- Passenger and freight on-line railroad operations and ground rapid transit systems
- Aviation and airport-related operations
- Local industrial plants
- Other ground stationary noise sources contributing to the community noise environment

California General Plan Guidelines

The California General Plan Guidelines, published by the Governor's Office of Planning and Research, provides guidance for the acceptability of specific land use types within areas of specific noise exposure. Table 4.11-2 presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. 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 Governor's Office of Planning and Research guidelines are advisory in nature.

Table 4.11-2. Land Use Compatibility for Community Noise Environments

Land Use	Community Noise Exposure (dBA CNEL)			
	Normally Acceptable[1]	*Conditionally Acceptable*[2]	*Normally Unacceptable*[3]	*Clearly Unacceptable*[4]
Residential-low density, single-family, duplex, mobile homes	50–60	55–70	70–75	75–85
Residential – multiple-family	50–65	60–70	70–75	70–85
Transit lodging – motel, hotels	50–65	60–70	70–80	80–85
Schools, libraries, churches, hospitals, nursing homes	50–70	60–70	70–80	80–85
Auditoriums, concert halls, amphitheaters	NA	50–70	NA	65–85
Sports arenas, outdoor spectator sports	NA	50–75	NA	70–85
Playgrounds, neighborhood parks	50–70	NA	67.5–77.5	72.5–85
Golf courses, riding stables, water recreation, cemeteries	50–70	NA	70–80	80–85
Office buildings, business commercial and professional	50–70	67.5–77.5	75–85	NA
Industrial, manufacturing, utilities, agriculture	50–75	70–80	75–85	NA

Source: OPR 2003

Notes: CNEL = community noise equivalent level; NA = not applicable

1 Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

2 Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features have been 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 of development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise-insulation features must be included in the design.

4 Clearly Unacceptable: New construction or development should generally not be undertaken.

State of California Building Code

The 2019 State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class rating of the wall and roof-ceiling assemblies must be at least 50 (Section 5.507.4.1). However, the proposed land uses (high-cube fulfillment center warehouse, business park, and retail) within the Campus Development of the Specific Plan Area would meet the criteria of the Exception for Section 5.507 Environmental Comfort, "Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings."

Local

March Joint Powers Authority General Plan

The March JPA General Plan policies are described in this section in relation to the Project. The Noise/Air Quality Element of the General Plan identifies several goals and policies to protect and enhance the quality of life for those who live and work in the March JPA planning area. The Noise/Air Quality Element provides policy guidance which addresses the generation, mitigation, avoidance, and the control of excessive noise.

The adopted March JPA General Plan includes the following goals and policies in the Noise/Air Quality Element that would apply to the Project (March JPA 1999):

Goal 1: Ensure that land uses are protected from excessive and unwanted noise.

Policy 1.1: Establish acceptable limits of noise for various land uses throughout the March JPA Planning Area. Future development that could increase ambient noise levels shall be required to mitigate the anticipated noise increase, to the extent possible.

Policy 1.2: Noise sensitive uses (such as schools, libraries, hospitals, medical facilities, residential uses, etc.) shall be discouraged in areas where noise levels exceed acceptable limits.

Policy 1.3: Encourage good acoustical design in new construction.

Policy 1.4: Provide buffer areas between noise sources and other developments, where practical.

Goal 2: Minimize incompatible noise level exposures throughout the Planning Area, and where possible, mitigate the effect of noise incompatibilities to provide a safe and healthy environment.

Policy 2.1: Avoid placing noise sensitive land uses in proximity to areas devoted to noise generating facilities such as areas of aviation related activities, industrial parks, transportation facilities, and other noise generating land uses.

Policy 2.2: Noise generating facilities shall be located in areas with compatible noise generating land uses (i.e., airport noise contour areas) to minimize land use incompatibilities, noise abatement and mitigation measures needed.

Policy 2.3: Noise sensitive land uses shall not be located in areas influenced by noise generating land uses, in particular the noise contours associated with the joint use airfield, unless appropriate mitigation is utilized.

Policy 2.4: March JPA shall evaluate noise sensitivity and noise generation when considering land use Projects and transportation improvement Projects, and where appropriate mitigation measures shall be employed.

Policy 2.5: March JPA shall utilize and comply with the CALTRANS standards for noise compatibility for aviation generated noise to proposed land use development.

Goal 3: Work toward the reduction of noise impacts from vehicular traffic, and aviation and rail operations.

Policy 3.1: Include mitigating measures such as landscaping, berming and site orientation, in the design of Projects located near noise generating sources such as arterial roadways.

Policy 3.2: Coordinate with adjacent cities and county agencies for noise abatement.

Policy 3.3: Adhere to the adopted AICUZ and Comprehensive Land Use Plan standards and promote the use of newer and quieter aircraft and support equipment.

Policy 3.4: Where appropriate, noise mitigation measures shall be incorporated in the design and approval of development on property located adjacent to aviation and rail facilities.

Policy 3.5: Where appropriate, development in areas adjacent to freeways, arterial streets, and other noise source shall be designed to reduce the potential for noise impacts.

Policy 3.6: Regulate the use of local streets by trucks, trailers, and construction vehicles, to the extent possible.

Policy 3.7: Limit trucking operations to appropriate routes, times and speeds.

Policy 3.8: Appropriate muffling systems for construction equipment and operations shall be required, as necessary.

Policy 3.9: March JPA shall encourage and facilitate the use of mass transit services and alternative transportation systems to minimize dependence of the automobile within the Planning Area, thereby minimizing the level of noise generated by surface transportation.

Land Use Compatibility

The compatibility criteria, shown in Table 4.11-2 provides the March JPA with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The State Land Use Compatibility guidelines indicate that industrial and manufacturing land uses, such as the Project, are considered *normally acceptable* with noise levels below 70 dBA CNEL and *conditionally acceptable* with noise levels of less than 75 dBA CNEL. For residential uses, which could be affected by noise generated on site by the Project or of-site by Project-related traffic increases, noise levels below 60 dBA CNEL are considered *normally acceptable* while noise levels of less than 70 dBA CNEL are deemed *conditionally acceptable*.

Riverside County Airport Land Use Compatibility Plan Policy Document

The Riverside County Airport Land Use Compatibility Plan (ALUCP) (County of Riverside 2014) includes the policies for determining the land use compatibility of the Project since it is located within the March Air Reserve Base (March ARB) – Inland Port (IP) airport influence area. ALUCP Policy 4.1.5 Noise Exposure for Other Land Uses requires that land uses, demonstrate compatibility with applicable community noise limits listed in Policy 4.1.5: Table 2 - Supporting Compatibility Criteria: Noise (see Figure 4.11-8). With respect to Figure 4.11-8, noise exposure levels for the Project's mixed use, business park and industrial land uses (service commercial, wholesale trade, warehousing, light industrial) would be considered clearly acceptable below 60 dBA CNEL, normally acceptable from 60 to 65 dBA CNEL, and marginally acceptable from 65 – 70 dBA CNEL.

The noise contour boundaries used to determine the potential aircraft-related noise impacts within the Specific Plan Area are found on Figure 6-9 of the March Air Reserve Base AICUZ (U.S. Air Force 2018) and are presented on Figure 4.11-4. Based on the AICUZ noise level contours for the MARB/IPA, the Specific Plan Area is located mostly between the 60 to 65 dBA CNEL noise level contour boundaries and is considered normally acceptable under the Riverside County ALUCP. In addition, the outdoor activities at the business park and mixed-use land uses within the Project site are expected to be minimal and include employees traveling from their vehicles to the office buildings within the site. Therefore, based on the RC ALUCP compatibility criteria, conventional construction methods would eliminate noise intrusions upon indoor activities and would therefore generally be considered compatible with the RC ALUCP noise exposure guidance.

Operational Noise Standards

Although the Specific Plan Area is located within the March JPA planning area, noise-sensitive receivers potentially impacted by operational noise activities are also located in the City of Riverside and County of Riverside jurisdictions. Therefore, to accurately describe the potential Project-related operational noise level contributions, this subsection presents the appropriate operational noise standards for each jurisdiction adjacent to the Project site. The March JPA, City of Riverside, and County of Riverside operational noise level standards are summarized in Table 4.11-3.

March JPA Operational Noise Standards

The March JPA Development Code, Section 9.10.140, Noise and Sound, identifies the exterior stationary-source noise level standards for commercial and industrial land uses. Based on Section 9.10.140 of the Development Code, all commercial and industrial uses shall be operated such that the resulting exterior noise level shall not exceed 55 dBA L_{eq} at any time beyond the boundaries of the property. If the sound from noise attention or attracting devices (i.e., loudspeakers, bells, gongs, buzzers), or live or recorded music, creates a noise disturbance across the

property line of a residential use, that sound must cease between the hours of 10:00 p.m. and 7:00 a.m. Chapter 9.10 of the March JPA Development Code is included in Appendix M.

City of Riverside Operational Noise Standards

The noise regulations included in the City of Riverside Municipal Code, Title 7 *Noise Control*, provide standards for determining and mitigating non-transportation or stationary-source noise impacts from operations at private properties. For the noise-sensitive residential land uses in the Project study area, a daytime (7:00 a.m. to 10:00 p.m.) noise level standard of 55 dBA L_{50} applies and a nighttime (10:00 p.m. to 7:00 a.m.) noise level standard of 45 dBA L_{50}.applies. These standards cannot be exceeded plus 5 dBA for a cumulative period of 30 minutes in any hour, as well as plus 5 dBA cannot be exceeded for a cumulative period of more than 15 minutes in any hour, or the standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour, or the standard plus 15 dBA for a cumulative period of more than 1 minute in any hour, or the standard plus 20 dBA for any period of time. No standards have been included for interior noise levels. Standard construction practices that comply with the exterior noise levels generally result in acceptable interior noise levels. The City of Riverside exterior noise standards for noise-sensitive residential land uses are shown on Table 4.11-3 (relevant code excerpts are included in Appendix M).

County of Riverside Operational Noise Standards

The County of Riverside has set exterior noise limits to control community noise impacts from non-transportation noise sources (such as playgrounds, trash compactors, air-conditioning units). Policy N 4.1 of the Noise Element sets an exterior noise limit not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA L_{eq} for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA L_{eq} during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. These stationary-source noise level standards are consistent with the County of Riverside Office of Industrial Hygiene guidelines for noise studies within the County. The County of Riverside stationary-source (operational) noise standards are shown on Table 4.11-3.

Table 4.11-3. Summary of Applicable Operational Noise Standards

Jurisdiction	Land Use	Time Period	Exterior Noise Level Standards (dBA)[1]					
			L_{eq} (Average)	L_{50} (30 mins)	L_{25} (15 mins)	L_{8} (5 mins)	L_{2} (1 min)	L_{max} (Anytime)
March JPA[2]	Residential	Daytime	55	—	—	—	—	—
		Nighttime	45	—	—	—	—	—
City of Riverside[3]	Residential	Daytime	—	55	60	65	70	75
		Nighttime	—	45	50	55	60	65
County of Riverside[4]	Residential	Daytime	65	—	—	—	—	—
		Nighttime	45	—	—	—	—	—

Notes: "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

1 L_{eq} represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The percent noise level is the level exceeded "n" percent of the time during the measurement period. L_{50} is the noise level exceeded 50% of the time.

2 Source: March Joint Powers Authority, Development Code, Chapter 9.10, Performance Standards, Section 9.10.140 (Appendix M).

3 Source: City of Riverside Municipal Code, Title 7 Noise Control, Section 7.25.010 (A) (Appendix M).

4 Source: County of Riverside 2015, Table N-2

Construction Noise Standards

Noise impacts from construction activities are typically limited by establishment of allowable hours of operation under a jurisdiction's Code. To accurately describe the potential Project-related construction noise level contributions to the existing noise environment, this subsection presents the appropriate construction noise standards for each jurisdiction adjacent to the Project site including: the March JPA , City of Riverside, and County of Riverside. However, the permitted hours of construction for the March JPA planning area are the only applicable hour restrictions for the Project, since the construction activity would be within the March JPA planning area.

March JPA Construction Noise Standards

The March JPA Development Code, Section 9.10.140, specifies that outdoor construction and grading activities, including the operation of any tools or equipment associated with construction, drilling, repair, alteration, grading/grubbing or demolition work within 500 feet of the property line of a residential use, is prohibited between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday and between 5:00 p.m. and 8:00 a.m. on Saturdays or at any time on Sunday or a federal holiday. Construction activities are considered exempt from the noise performance standards if they occur within the above described permitted hours. The March JPA Development Code construction noise standards are shown on Table 4.11-4 and included in Appendix M.

City of Riverside Construction Noise Standards

The City of Riverside Municipal Code, Section 7.35.020(G), states that construction activities are limited to the hours of 7:00 a.m. to 7:00 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on Saturdays, with no activities allowed on Sundays or federal holidays. The land uses in the City of Riverside with the potential to be impacted by Project-related construction noise levels include noise-sensitive residential land use. Based on the City of Riverside Municipal Code, Table 7.25.010A, Exterior Noise Standards, residential land uses have an anytime noise level standard of 75 dBA L_{max} during the daytime hours, and 65 dBA L_{max} during the nighttime hours for construction noise levels. The City of Riverside Municipal Code construction noise standards are shown on 4.11-8 and included in Appendix M.

County of Riverside Construction Noise Standards

Section 9.52.020(I) of the County's Noise Regulation Ordinance indicates that noise associated with any private construction activity located within one-quarter of a mile from an inhabited dwelling is considered exempt between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May. Neither the County's General Plan nor County Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what the California Environmental Quality Act (CEQA) constitutes a *substantial temporary or periodic noise increase*.

To allow for a quantified determination of what the Noise Regulation Ordinance constitutes as noise that *may jeopardize the health, safety or general welfare of Riverside County residents and degrade their quality of life* due to construction activity, relevant quantified stationary source noise standards established in the General Plan, Policy N 4.1, are used in this analysis to assess the construction noise levels at nearby sensitive receivers located within Riverside County. Therefore, the daytime noise level standard of 65 dBA L_{eq} and nighttime noise level standard of 45 dBA L_{eq} are used to evaluate the potential Project-related construction noise impacts at residential receivers within Riverside County. These standards are included in Table 4.11-4.

Table 4.11-4. Summary of Applicable Construction Noise Standards

Jurisdiction	Land Use	Permitted Hours of Construction Activity	Construction Noise Level Limit at Receiving Use[1]	
			Daytime	*Nighttime*
March JPA[2]	n/a	If within 500 feet of the property line of a residential use: 7:00 a.m. to 7:00 p.m. on weekdays; 8:00 a.m. to 5:00 p.m. on Saturdays; no work on Sundays or federal holidays	n/a	
City of Riverside[3]	Residential	7:00 a.m. to 7:00 p.m. on weekdays; 8:00 a.m. to 5:00 p.m. on Saturdays; no work on Sundays or federal holidays	75 dBA L_{max}	65 dBA L_{max}
County of Riverside[4]	Residential	6:00 a.m. to 6:00 p.m. June to September; 7:00 a.m. to 6:00 p.m. October to May	65 dBA L_{eq}	45 dBA L_{eq}

Notes:
1 Source: Thresholds based on the City of Riverside and County of Riverside noise level standard for non-transportation noise sources.
2 Source: March Joint Powers Authority, Development Code, Chapter 9.10, Performance Standards, Section 9.10.140 (Appendix M).
3 Source: City of Riverside Municipal Code, Section 7.35.020(G), Table 7.25.010A (Appendix M).
4 Source: County of Riverside County Code, Section 9.52.020 (I)

Construction Vibration Standards

The March JPA and the City of Riverside General Plans and Municipal Codes do not identify specific vibration level standards. Therefore, the impacts due to vibration are assessed based on vibration level limits identified in the County of Riverside General Plan Noise Element. Vibration levels with a PPV of 0.0787 inches per second (in/sec) are considered readily perceptible and PPV above 0.1968 in/sec are considered annoying to people in buildings. Further, County of Riverside General Plan Policy 16.3 identifies a motion velocity perception threshold for vibration due to passing trains of 0.01 in/sec over the range of one to 100 Hertz. For the purposes of this analysis, the vibration perception threshold of 0.01 in/sec shall be used to assess the potential impacts due to Project construction at nearby sensitive receiver locations. The vibration standards are shown on Table 4.11-5.

Typically, the human response at the perception threshold for vibration includes annoyance in residential areas as previously shown in Figure 4.11-3, when vibration levels expressed in vibration decibels (VdB) approach 75 VdB. The County of Riverside, however, identifies a vibration perception threshold of 0.01 in/sec. For vibration levels expressed in velocity, the human body responds to the average vibration amplitude often described as RMS. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a one-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as VdB, which serves to reduce the range of numbers used to describe human response to vibration. Therefore, the vibration standard of 0.01 in/sec in RMS velocity levels is used in this analysis to assess the human perception of vibration levels due to Project-related construction activities. The County of Riverside General Plan Policy 16.3 vibration perception threshold of 0.01 RMS in/sec was intended to control perceptible ground vibration for very low range of noise frequency (0 to 100 Hertz) due to passing trains. This policy is more restrictive than the vibration thresholds outlined by the FTA to control construction vibration levels.

Table 4.11-5. Vibration Annoyance Standards

Jurisdiction	Root Mean Square Velocity (inches per second)
March JPA	n/a
City of Riverside	n/a
County of Riverside[1]	0.01

Notes:
[1] **Source**: County of Riverside 2015 (Policy N 16.3).
n/a = The General Plan and Municipal Code do not identify specific vibration level standards.

March Air Reserve Base/Inland Port Airport Land Use Compatibility

The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located less than one mile east of the Project site. The Riverside County Airport Land Use Compatibility Plan Policy Document (RC ALUCP) includes the policies for determining the land use compatibility of the Project. Policy 4.1.5 Noise Exposure for Other Land Uses of the RC ALUCP requires that land uses, demonstrate compatibility with the acceptable noise levels on Table 2B. The Table 2B Supporting Compatibility Criteria: Noise matrix is shown on Figure 4.11-8 and indicates that the Project's mixed use, business park and industrial land uses (service commercial, wholesale trade, warehousing, light industrial) experience clearly acceptable exterior noise levels below 60 dBA CNEL. Normally acceptable noise levels for industrial land uses range from 60 to 65 dBA CNEL. Marginally acceptable noise levels at industrial land uses range from 65 to 70 dBA CNEL.

According to the Supporting Compatibility Criteria: Noise matrix, the Project's Park use will experience clearly acceptable exterior noise levels below 55 dBA CNEL, normally acceptable noise levels from 55 to 65 dBA CNEL and marginally acceptable noise levels above 65 dBA CNEL. For marginally acceptable noise levels: the indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.

The noise contour boundaries used to determine the potential aircraft-related noise impacts at the Project site are found on Figure 6-9 of the March Air Reserve Base 2018 Final Air Installations Compatible Uses Zones Study and are presented on Figure 4.11-4 of this report. Based on the 2018 noise level contours for the MARB/IPA, the Project development area is located mostly between the 60 to 65 dBA CNEL noise level contour boundaries and is considered normally acceptable. In addition, the outdoor activities at the business park and mixed-use land uses within the Project site are expected to be minimal and include employees traveling from their vehicles to the office buildings within the site. Therefore, based on the RC ALUCP compatibility criteria, conventional construction methods will eliminate noise intrusions upon indoor activities and thus is allowed under the RC ALUCP.

4.11.3 Project Design Features

The following Project Design Features have been incorporated to avoid noise and vibration impacts.

PDF-NOI-1 **Hours of Construction.** Project construction activities shall not be conducted during the period from 10:00 p.m. on a given day until 6:00 a.m. on the following day. Additionally, outdoor construction and grading activities, including the operation of any tools or equipment associated with construction, drilling, repair, alteration, grading/grubbing or demolition work within 500 feet of the

property line of a residential use, shall be prohibited between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday, between 5:00 p.m. and 8:00 a.m. on Saturdays, and at any time on Sunday or a Federal Holiday.

PDF-NOI-2 **Blasting and Drilling Limits**. No blasting shall occur within 1,000 feet of any residence or other sensitive receptor. In the event bedrock material that is not rippable by bulldozer is encountered within 1,000 feet of any residence or other sensitive receptor, the construction contractor shall utilize expansive epoxy or other non-explosive demolition agent for any necessary removal operations. In addition to the distance limits, any blasting or drilling activities shall not exceed the City construction noise threshold of 75 dBA Leq for City residents or the County's construction noise threshold of 65 dBA Lmax for County residents.

PDF-NOI-3 **Blasting Activities.** All blasting activities shall be designed to meet the regulatory construction noise and vibration thresholds outlined on Table 4.11-7 of this EIR.

4.11.4 Thresholds of Significance

CEQA Guidelines

The significance criteria used to evaluate the Project impacts related to noise are based on the March JPA 2022 CEQA Guidelines. According to of the March JPA 2022 CEQA Guidelines, a significant impact related to noise would occur if the Project would (March JPA 2022):

1. **NOI-1:** 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.
2. **NOI-2:** Result in generation of excessive groundborne vibration or groundborne noise levels.
3. **NOI-3:** 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.
4. **NOI-4:** Aircraft operations (i.e., aircraft landings and/or takeoffs) at the March Inland Port Airport between 10:00 p.m. and 6:59 a.m. that could expose people within the March Inland Port Airport's vicinity to a significant risk of sleep disturbance due to noise, as based on a single event noise exposure level analysis.

While the CEQA Guidelines and the March JPA General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts, they do not define the levels at which increases are considered substantial for use under Threshold NOI-1. Similarly, the CEQA Guidelines and the March JPA General Plan Guidelines provide direction relative to vibration impacts, yet do not identify numeric thresholds for use in the analysis of Project vibration impacts. Further refinement to the CEQA guideline criteria for application to the Project is provided in a subsequent sub-section below (Significance Thresholds Applicable to the Project).

CEQA Guidelines Not Further Analyzed (NOI-3 and NOI-4)

The closest airport which would require additional noise analysis under Threshold NOI-3 is the March Air Reserve Base/Inland Port Airport (MARB/IPA) which is located less than one mile east of the Project site. As previously indicated in Section 4.11.1, Existing Conditions, the noise contour boundaries of MARB/IPA are presented on Figure 4.11-4 and show that the Project's mixed use, business park and industrial land uses are considered normally acceptable land uses since the Specific Plan Area is located either in an area encompassed by the 60 to 65 dBA CNEL contour, or outside of this contour (where airport noise levels would be less than 60 dBA CNEL). The very limited portion at the northeast extreme of the Project site that falls within the 65 – 70 dBA CNEL contour is proposed for Open Space designation, where no development would occur. Therefore, the Project impacts are considered less than significant, and no further noise analysis is provided under Threshold NOI-3. Additionally, at its May 12, 2022 hearing, the Riverside County Airport Land Use Commission found the proposed Project to be conditionally consistent with the March ARB/IP ALUCP.

Threshold NOI-4 is applied to any proposal that would increase the incidence of commercial cargo flights departing or arriving at MARB/IPA. The Project does not propose any air cargo operations that would use MARB/IPA, nor does it include residential land uses that could be impacted sleep disturbance resulting from increased nighttime air cargo operations at MARB/IPA. Therefore, the Project would have no impacts and no further noise analysis is provided under Threshold NOI-4.

Significance Thresholds Applicable to the Project

Noise level increases resulting from the Project are evaluated based on the CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. An important way of determining a person's subjective reaction to a new noise is the comparison of the new noise level against the existing ambient noise environment.

The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of Project-generated permanent increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such CNEL and L_{eq}. FICON identifies that a *readily perceptible* 5 dBA or greater Project-related noise level increase is considered a significant impact where ambient noise levels are at 60 dBA or less. Per FICON, in areas where the without Project noise levels range from 60 to 65 dBA, a 3 dBA *barely perceptible* noise level increase appears to be appropriate for most people. When the without Project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact. Table 4.11-6 provides a summary of the noise impact significance criteria for permanent noise increases associated with the Project, based on guidance from FICON.

Table 4.11-6. Significance of Permanent Noise Increase Impacts at Noise-Sensitive Receivers

Without Project Noise Level	Potential Significant Impact
< 60 dBA	5 dBA or more
60 – 65 dBA	3 dBA or more
> 65 dBA	1.5 dBA or more

Source: FICON 1992.

To assess noise-generating construction activities, the temporary or periodic noise level increases over the existing ambient conditions must be considered under Threshold NOI-1. Caltrans Traffic Noise Analysis Protocol identifies a 12 dBA L_{eq} increase significance threshold for assessment of permanent project noise level increases (i.e., increases in traffic-related noise resulting from the project) (Caltrans 2013); the Caltrans limit represents an allowable noise increase that would be perceived as more than twice the existing noise level, making it both noticeable and likely annoying. Therefore, while the Caltrans threshold is intended for permanent noise increases, it is reasonable to employ this as a short-term construction noise threshold. If the Project-related construction noise levels generate a temporary noise level increase above the existing ambient noise levels of up to 12 dBA L_{eq}, then the Project construction noise level increases would be considered a potentially significant impact. Although the Caltrans recommendations were specifically developed to assess traffic noise impacts on a permanent basis, the 12 dBA L_{eq} substantial noise level increase threshold has been used in California to address temporary construction-related noise level increases as compared to existing ambient conditions. However, the construction activities associated with the West Campus Upper Plateau Project are likely to take several years and cannot reasonably be considered as a short-term temporary noise impact. Therefore, due to the expected duration of construction, a "barely-perceptible" 5 dBA noise level increase threshold has been used to assess the potential impacts associated with the construction related noise level increases.

The adopted 1999 March JPA General Noise/Air Quality Element recommends adoption of the *State Land Use Compatibility* matrix to establish satisfactory noise levels for noise-sensitive and non-noise-sensitive land uses in the Project study area; the noise analysis relies on the *State Land Use Compatibility* matrix land use compatibility criteria and noise policies outlined in the adopted 1999 General Plan. The OPR noise compatibility matrix exterior noise level criteria for a non-noise-sensitive land use, such as industrial use, is 70 dBA CNEL. Noise levels greater than 70 dBA CNEL are considered *conditionally acceptable* per the *State Land Use Compatibility* matrix, previously shown in Table 4.11-2.

To determine if Project-related traffic noise level increases would be significant at off-site non-noise-sensitive land uses, the FICON standards are applied. When the without Project noise levels at the non-noise-sensitive land uses are below 60 dBA CNEL, a *readily perceptible* 5 dBA or greater noise level increase is considered a significant impact. When the without Project noise levels are between 60 – 65 dBA CNEL a *barely perceptible* 3 dBA or greater noise level increase is considered a significant impact. When the without Project noise levels are greater than 65 dBA CNEL, a 1.5 dBA or greater noise level increase is considered a significant impact.

Significance Criteria Summary

Noise impacts would be considered significant if any of the following occur as a direct result of the proposed development. Table 4.11-7 provides a significance criteria summary matrix.

Off-Site Traffic Noise

- When the noise levels at existing and future noise-sensitive land uses (e.g., residential):
  1. are less than 60 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project-related noise level increase; or
  2. range from 60 to 65 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project-related noise level increase; or
  3. already exceed 65 dBA, and the Project creates a community noise level increase of greater than 1.5 dBA (FICON 1992).

When the noise levels at existing and future non-noise-sensitive land uses (e.g., industrial):

1. are less than the March JPA General Plan Noise/Air Quality Element industrial land use exposure limit of 70 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project-related noise level increase; or
2. are greater than the March JPA General Plan Noise/Air Quality Element industrial land use exposure limit of 70 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project-related noise level increase.

Operational Noise

If Project-related operational (stationary-source) noise levels:

1. exceed the exterior 55 dBA Leq noise level standards at nearby sensitive residential land uses within the March JPA planning area (March JPA Development Code, Section 9.10.140); or
2. exceed the exterior 55 dBA L50 daytime or 45 dBA L50 nighttime noise level standards for sensitive residential land uses. These standards shall not be exceeded plus 5 dBA for a cumulative period of 30 minutes (L50), or plus 5 dBA cannot be exceeded for a cumulative period of more than 15 minutes (L25) in any hour, or the standard plus 10 dBA for a cumulative period of more than 5 minutes (L8) in any hour, or the standard plus 15 dBA for a cumulative period of more than 1 minute (L2) in any hour, or the standard plus 20 dBA at any time (Lmax) (City of Riverside Municipal Code, Section 7.25.010 [A]); or

If the existing ambient noise levels at the nearby noise-sensitive receivers near the Project site:

1. are less than 60 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project-related noise level increase; or
2. range from 60 to 65 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project-related noise level increase; or
3. already exceed 65 dBA, and the Project creates a community noise level increase of greater than 1.5 dBA (FICON 1992).

Construction Noise

If Project-related construction activities:

1. within 500 feet of the property line of a residential use, occur at any time between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday, between 5:00 p.m. and 8:00 a.m. on Saturdays or at any time on Sunday or a federal holiday (March JPA Development Code, Section 9.10.140) unless otherwise permitted; or
2. occur at any other than the permitted hours of 7:00 a.m. to 7:00 p.m. weekdays and 8:00 a.m. and 5:00 p.m. Saturdays (City of Riverside Municipal Code, Section 7.25.010[A]);
3. occur at any other than the permitted hours of 6:00 a.m. to 6:00 p.m. June to September or 7:00 a.m. to 6:00 p.m. October to May (County of Riverside County Code, Section 9.52.020 [I]); or
4. generate Project construction-related noise level increases which exceed the 5 dBA L_{eq} noise level increase threshold at noise-sensitive receiver locations (FICON 1992).

Vibration

A significant vibration impact would occur if construction activity or Project operations would result in a vibration level greater than 0.1 in/sec RMS at a vicinity receptor (County of Riverside 2015, Policy N 16.3).

Table 4.11-7. Significance Thresholds Summary

Analysis	Land Use	Jurisdiction	Condition(s)	Significance Criteria	
				Daytime	*Nighttime*
Off-Site Traffic	Noise-Sensitive	All [1]	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
			If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
			If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
	Non-Noise-Sensitive	All [1]	If ambient is < 70 dBA CNEL	≥ 5 dBA CNEL Project increase	
			If ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational	Noise-Sensitive	March JPA	Noise Level Threshold	55 dBA L_{eq}	
		City of Riverside	Exterior Noise Level Standard	55 dBA L_{eq}	45 dBA L_{eq}
		County of Riverside	Exterior Noise Level Standard	65 dBA L_{eq}	45 dBA L_{eq}
		All [1]	If ambient is < 60 dBA L_{eq}	≥ 5 dBA L_{eq} Project increase	
			If ambient is 60 - 65 dBA L_{eq}	≥ 3 dBA L_{eq} Project increase	
			If ambient is > 65 dBA L_{eq}	≥ 1.5 dBA L_{eq} Project increase	
Construction	Noise-Sensitive	March JPA	Work within 500 feet of the property line of a residential use shall be prohibited between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday and between 5:00 p.m. and 8:00 a.m. on Saturdays or at any time on Sunday or a federal holiday.		
		City of Riverside	Noise-generating construction activity shall be prohibited between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between the hours of 5:00 p.m. and 8:00 a.m. on Saturdays, or at any time on Sunday or a federal holiday.	75 dBA L_{max}	65 dBA L_{max}
		County of Riverside	Noise-generating construction work prohibited between 6:00 p.m. and 6:00 a.m. June to September, and between 6:00 p.m. and 7:00 a.m. October to May	65 dBA L_{eq}	45 dBA L_{eq}
		All	Noise Level Increase [1]	5 dBA L_{eq}	n/a
			Vibration Annoyance Threshold [2]	0.01 in/sec RMS	
Blasting	Noise-Sensitive	All [3]	Vibration Annoyance Threshold	0.01 in/sec RMS	n/a

Source: Appendix M.

Notes:

1 Ficon standard applied in the absence of a standard that has been adopted by the local jurisdiction.

2 County of Riverside threshold applied as the most restrictive local standard.

3 Caltrans standard applied in the absence of a standard that has been adopted by local jurisdiction.

4 Threshold is applied at the closest structure (residence) to the blast zone.

4.11.5 Impacts Analysis

Threshold NOI-1. ***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?***

Specific Plan Area (Campus Development, Park, Infrastructure Improvements)

On-site noise-generating activities associated with Specific Plan buildout would include short-term construction as well as long-term operational noise associated with the warehouse, industrial, business park, and mixed-use operations; and other on-site noise sources (e.g., heating, ventilation, and air conditioning [HVAC] equipment). Specific Plan implementation would also generate off-site traffic noise along various roads in the area. The organization of the following discussion varies slightly from the Noise Study prepared for the proposed Project (Appendix M); the impact discussion below begins with construction-related impacts, then evaluates off-site traffic noise, and concludes with examination of operational noise from on-site sources, inclusive of the proposed Park. The noise impacts of the entirety of the Specific Plan Area buildout are evaluated herein.

Construction Noise

This section analyzes potential impacts resulting from the short-term construction activities associated with the Specific Plan buildout. Figure 4.11-7 shows the construction noise source locations in relation to the nearby sensitive receiver locations previously described. Appendix M provides the construction noise level calculations.

Construction Noise Standards

To accurately describe the potential construction noise level contributions to the existing noise environment, this analysis employs appropriate construction noise standards for each jurisdiction adjacent to the Specific Plan Area including: the March JPA, City of Riverside, and County of Riverside.. Construction noise standards are presented in Table 4.11-7.

Construction Noise Reference Levels

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the FHWA published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Using the reference construction equipment noise levels for a single piece of construction equipment of each type (i.e., tractor, dozer, etc.) and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Consistent with FTA guidance for general construction noise assessment, Table 4.11-8 presents the source noise level for each single piece of equipment at a distance of 50 feet, and the combined noise levels for the loudest construction equipment at 50 feet, assuming each piece of identified equipment operates at the same time.

Table 4.11-8. Construction Reference Noise Levels

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet[1]		Combined/Max Noise Level[2]	
		Leq	Lmax	Leq	Lmax
Mass Grading	Graders	81	85	83	85
	Excavators	77	81		
	Compactors	76	83		
Blasting	Drilling Rig	72	79	82	94
	Warning Horn	70	83		
	Blasting	81	94		
Remedial Grading	Graders	81	85	83	85
	Excavators	77	81		
	Compactors	76	83		
Building Construction	Cranes	73	81	81	84
	Tractors	80	84		
	Welders	70	74		
Architectural Coating	Cranes	73	81	77	81
	Air Compressors	74	78		
	Generator Sets	70	73		
Paving	Pavers	74	77	83	85
	Paving Equipment	82	85		
	Rollers	73	80		

Notes:
1 FHWA Roadway Construction Noise Model (RCNM).
2 Represents the combined noise level for all equipment assuming they operate at the same time consistent with FTA Transit Noise and Vibration Impact Assessment guidance.

Using the construction reference noise levels and identified distanced to sensitive receivers (i.e., residences) CadnaA was employed to predict construction activity noise levels at each of the identified receivers, As shown on Table 4.11-9, the highest construction noise levels are expected to range from 39.7 to 48.0 dBA L_{eq} and 44.7 to 53.0 dBA L_{max} at the nearby receiver locations. Appendix M includes the detailed CadnaA construction noise model inputs.

Table 4.11-9. Construction Equipment and Activity Noise Level Summary

Receiver Location[1]	Mass Grading	Blasting	Remedial Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
Average Construction Noise Levels (dBA L_{eq})							
R1	47.2	46.2	47.2	45.2	47.2	41.2	47.2
R2	48.0	47.0	48.0	46.0	48.0	42.0	48.0
R3	46.8	45.8	46.8	44.8	46.8	40.8	46.8
R4	39.7	38.7	39.7	37.7	39.7	33.7	39.7
R5	42.3	41.3	42.3	40.3	42.3	36.3	42.3

Table 4.11-9. Construction Equipment and Activity Noise Level Summary

Receiver Location[1]	Mass Grading	Blasting	Remedial Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R6	44.7	43.7	44.7	42.7	44.7	38.7	44.7
R7	43.5	42.5	43.5	41.5	43.5	37.5	43.5
R8	46.0	45.0	46.0	44.0	46.0	40.0	46.0
R9	47.2	46.2	47.2	45.2	47.2	41.2	47.2
R10	47.8	46.8	47.8	45.8	47.8	41.8	47.8
Maximum Construction Noise Levels (dBA L_{max})							
R1	49.2	58.2	49.2	48.2	45.2	49.2	58.2
R2	50.0	59.0	50.0	49.0	46.0	50.0	59.0
R3	48.8	57.8	48.8	47.8	44.8	48.8	57.8
R4	41.7	50.7	41.7	40.7	37.7	41.7	50.7
R5	44.3	53.3	44.3	43.3	40.3	44.3	53.3
R6	46.7	55.7	46.7	45.7	42.7	46.7	55.7
R7	45.5	54.5	45.5	44.5	41.5	45.5	54.5
R8	48.0	57.0	48.0	47.0	44.0	48.0	57.0
R9	49.2	58.2	49.2	48.2	45.2	49.2	58.2
R10	49.8	58.8	49.8	48.8	45.8	49.8	58.8

Notes:

1 Noise receiver locations are shown on Figure 4.11-6.

2 Construction noise level calculations based on distance from the construction activity, which is measured from the Specific Plan Area boundary to the nearest receiver locations (Figure 4.11-7). CadnaA construction noise model inputs are included in Appendix M.

Construction Noise Levels – Compliance With Standards

Daytime Construction

The construction noise analysis shows that the highest construction noise levels will occur when construction activities take place at the edge of the Specific Plan Area. Table 4.11-10 shows the unmitigated peak daytime construction noise levels at the nearby sensitive receiver locations will range from 46.8 to 47.2 dBA L_{eq} and 50.7 to 59.0 dBA L_{max} and will not exceed the daytime construction noise level thresholds for each jurisdiction at the nearby sensitive receiver locations. Therefore, daytime noise impacts due to construction noise are considered **less than significant** at all receiver locations, and no mitigation is required.

Table 4.11-10. Daytime Construction Noise Level Compliance With Standards

Receiver Location[1]	Jurisdiction	Peak Construction Activity Noise Levels[2]		Threshold[3]		Threshold Exceeded?[4]	
		L_{eq}	*L_{max}*	*L_{eq}*	*L_{max}*	*L_{eq}*	*L_{max}*
R1	County of Riverside	47.2	—	65	—	No	—
R2		48.0	—	65	—	No	—
R3		46.8	—	65	—	No	—
R4		—	50.7	—	75	—	No

Table 4.11-10. Daytime Construction Noise Level Compliance With Standards

Receiver Location[1]	Jurisdiction	Peak Construction Activity Noise Levels[2]		Threshold[3]		Threshold Exceeded?[4]	
		L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
R5	City of Riverside	—	53.3	—	75	—	No
R6		—	55.7	—	75	—	No
R7		—	54.5	—	75	—	No
R8		—	57.0	—	75	—	No
R9		—	58.2	—	75	—	No
R10		—	58.8	—	75	—	No

Notes:
1 Construction noise receiver locations are shown on Exhibit 4.11-7.
2 Estimated construction noise levels during peak operating conditions, as shown on Table 4.11-9.
3 Construction noise standards as shown on Table 4.11-4.
4 Do the estimated Project operational noise source activities exceed the noise level standards?
"Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

Construction Noise Level Increases

To describe the construction noise level contributions to the existing ambient noise environment, the construction noise levels were combined with the existing ambient noise levels measurements at the off-site receiver locations. The difference between the combined construction and ambient noise levels are used to describe the construction noise level contributions. Noise level increases that would be experienced at sensitive receiver locations when construction-source noise is added to the ambient daytime conditions are presented on Tables 4.11-11. A temporary noise level increase of 12 dBA is considered a potentially significant impact based on the Caltrans substantial noise level increase criteria. However, the construction activities associated with the West Campus Upper Plateau Project are likely to take several years and cannot reasonably be considered as a short-term temporary noise impact. Therefore, due to the expected duration of construction, a "barely-perceptible" 5 dBA noise level increase threshold has been used to assess the potential impacts associated with the construction related noise level increases.

As indicated in Table 4.11-11, the Specific Plan would contribute construction noise level increases ranging from 0.5 to 3.0 dBA L_{eq} during the daytime hours at the closest sensitive receiver locations. Since the worst-case noise level increases of up to 3.0 dBA L_{eq} during construction would be below the FICON-based 5 dBA noise level increase significance threshold, the unmitigated construction noise level increases would be **less-than-significant** noise impacts, and no mitigation is required.

Table 4.11-11. Unmitigated Daytime Construction Noise Level Increases

Receiver Location	Total Project Construction Noise Level	Measurement Location	Reference Ambient Noise Levels	Combined Project and Ambient	Project Increase	FICON Increase Criteria	Increase Criteria Exceeded?
R1	47.2	L1	52.7	53.8	1.1	5	No
R2	48.0	L2	51.8	53.3	1.5	5	No
R3	46.8	L3	50.0	51.7	1.7	5	No

Table 4.11-11. Unmitigated Daytime Construction Noise Level Increases

Receiver Location	Total Project Construction Noise Level	Measurement Location	Reference Ambient Noise Levels	Combined Project and Ambient	Project Increase	FICON Increase Criteria	Increase Criteria Exceeded?
R4	39.7	L4	48.4	48.9	0.5	5	No
R5	42.3	L5	49.0	49.8	0.8	5	No
R6	44.7	L5	49.0	50.4	1.4	5	No
R7	43.5	L5	49.0	50.1	1.1	5	No
R8	46.0	L7	51.6	52.7	1.1	5	No
R9	47.2	L8	47.3	50.3	3.0	5	No
R10	47.8	L1	52.7	53.9	1.2	5	No

Source: Appendix M

Construction Blasting Noise Impacts

Although not specifically proposed, if blasting is determined to be required during excavation and grading, the blasting contractor is required to obtain blasting permit(s) from the state, and to notify Riverside County Sheriff's Department within 24 hours of planned blasting events. All blasting activities shall be designed to meet the regulatory construction noise and vibration thresholds outlined on Table 4.11-7, as required under **PDF-NOI-3**. These construction thresholds may be satisfied by modifying the blast design and/or through the use alternative rock breaking methods. Alternative rock breaking methods may include the use of non-explosive techniques such as expanding chemical agents (epoxy resin). Even though the epoxy resin is capable of breaking rock overtime without explosive blasting, these activities still require drilling and other construction equipment to complete. In addition, while these alternative methods are effective in breaking rock without the use of explosives, they are typically more costly and time intensive.

Off-Site Traffic Noise

The expected roadway noise level increases resulting from vehicle trip contributions were calculated by Urban Crossroads using a computer program that replicates the FHWA's Traffic Noise Prediction Model-FHWA-RD-77-108 (DOT 1978). The FHWA Model inputs include the total average daily traffic, the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relating to the absorption of the ground, pavement, or landscaping), and the percentage of total average daily traffic that flows each hour throughout a 24-hour period.

Appendix M contains the roadway parameters used to assess the Specific Plan's off-site transportation noise impacts for the 19 study area roadway segments, including roadway classification, the distance from the centerline to adjacent receiving land use based on the roadway classifications, and the posted vehicle speeds

Appendix M also contains data addressing the existing vehicle mix on each studied roadway segment (i.e., percentage of automobiles, medium trucks, and heavy trucks) for each of the traffic scenarios described below. The traffic volumes, expressed as average daily trips (ADT) used for each studied roadway for all the traffic scenarios described below are also contained in Appendix M.

Traffic noise analysis was conducted for the following traffic scenarios:

- Existing (2021)
- Existing plus Project (E+P)
- Existing plus Ambient Growth (EA)
- Existing plus Ambient Growth plus Project (EAP)
- Opening Year Cumulative (2028) Without Project (OYC)
- Opening Year Cumulative (2028) With Project (OYCP)
- Horizon Year (2045) Without Project
- Horizon Year (2045) With Project

To assess the off-site transportation noise level impacts associated with the Specific Plan, noise contours were developed based on the West Campus Upper Plateau Traffic Analysis (Appendix N). Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

Traffic Noise Contours

Traffic noise modeling was conducted in order to construct noise level contours, to assess the Specific Plan's incremental traffic-related noise impacts at receiving land uses adjacent to roadways conveying Specific Plan traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. Tables 4.11-12 through 4.11-19 present a summary of the exterior traffic noise levels, without barrier attenuation, for the 19 study area roadway segments analyzed from the without Project conditions to the with Project conditions in each of the four timeframes: Existing, Ambient Growth, Opening Year Cumulative 2028, and Horizon Year 2045 conditions. Appendix M includes a summary of the traffic noise level contours for each of the eight traffic scenarios.

Table 4.11-12. Existing (No Project) Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	78.1	208	448	966
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	77.8	200	431	928
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	75.8	107	230	495
4	Barton St.	n/o Van Buren Blvd.	Sensitive	65.8	RW	RW	80
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	72.9	86	186	401
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	71.9	75	162	350
7	Day St.	n/o Alessandro Blvd.	Sensitive	67.5	RW	65	140
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	71.3	RW	116	251
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.1	207	446	961

Table 4.11-12. Existing (No Project) Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
10	Alessandro Blvd.	e/o Barton St.	Sensitive	78.1	207	446	962
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.5	163	352	758
12	Alessandro Blvd.	w/o Day St.	Sensitive	74.8	139	300	645
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	72.9	93	201	433
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	74.8	139	300	645
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.3	67	144	310
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	76.1	154	331	713
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	75.8	145	313	675
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	75.8	145	313	674
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.2	155	335	721

Notes:
[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Table 4.11-13. Existing Plus Project Conditions Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	78.2	210	452	974
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	77.9	203	437	941
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	75.8	107	231	497
4	Barton St.	n/o Van Buren Blvd.	Sensitive	65.9	RW	RW	82
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	73.5	95	204	440
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	73.5	96	206	444
7	Day St.	n/o Alessandro Blvd.	Sensitive	67.6	RW	65	141
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	71.4	55	118	254
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.2	212	457	985
10	Alessandro Blvd.	e/o Barton St.	Sensitive	78.2	212	457	984
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.7	168	362	779
12	Alessandro Blvd.	w/o Day St.	Sensitive	74.8	140	303	652
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	77.3	184	396	853
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	75.0	145	312	671
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.3	67	144	310

Table 4.11-13. Existing Plus Project Conditions Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	76.2	156	335	723
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	75.9	148	319	688
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	76.0	150	324	697
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.7	167	359	774

Notes:
[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Table 4.11-14. Existing plus Ambient Growth (EA) Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	78.7	228	492	1059
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	78.4	219	472	1017
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	76.4	117	252	543
4	Barton St.	n/o Van Buren Blvd.	Sensitive	66.4	RW	RW	88
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	73.6	95	204	440
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	72.5	83	178	383
7	Day St.	n/o Alessandro Blvd.	Sensitive	68.1	RW	71	153
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	71.9	59	128	275
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.7	227	489	1054
10	Alessandro Blvd.	e/o Barton St.	Sensitive	78.7	227	490	1055
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	77.1	179	386	831
12	Alessandro Blvd.	w/o Day St.	Sensitive	75.4	152	329	708
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	73.5	102	220	475
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	75.4	152	329	708
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.9	73	158	340
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	76.7	168	363	782
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	76.4	159	343	740
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	76.4	159	343	739

Table 4.11-14. Existing plus Ambient Growth (EA) Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.8	170	367	791

Notes:

1 Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
2 The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Table 4.11-15. Existing plus Ambient Growth Plus Project (EAP) Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	78.8	230	495	1067
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	78.5	222	478	1030
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	76.4	117	253	544
4	Barton St.	n/o Van Buren Blvd.	Sensitive	66.5	RW	RW	90
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	74.1	103	221	477
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	73.9	102	220	475
7	Day St.	n/o Alessandro Blvd.	Sensitive	68.2	RW	72	154
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	72.0	60	129	278
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.8	232	500	1077
10	Alessandro Blvd.	e/o Barton St.	Sensitive	78.8	232	500	1076
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	77.3	183	395	852
12	Alessandro Blvd.	w/o Day St.	Sensitive	75.4	154	331	714
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	77.5	190	410	883
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	75.6	158	340	733
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.9	73	158	340
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	76.8	170	367	791
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	76.5	162	349	753
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	76.6	164	353	762
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	77.2	181	391	842

Notes:

1 Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
2 The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Table 4.11-16. Opening Year Cumulative (2028) Without Project (OYC) Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	78.9	236	507	1093
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	78.9	236	508	1095
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	78.1	152	327	705
4	Barton St.	n/o Van Buren Blvd.	Sensitive	68.0	RW	RW	113
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	74.0	102	219	471
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	72.8	86	185	399
7	Day St.	n/o Alessandro Blvd.	Sensitive	68.7	RW	77	167
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	72.2	62	134	288
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.8	231	497	1071
10	Alessandro Blvd.	e/o Barton St.	Sensitive	78.8	233	501	1080
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	77.3	184	397	855
12	Alessandro Blvd.	w/o Day St.	Sensitive	76.1	172	371	798
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	73.5	102	221	475
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	76.1	172	371	798
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.9	74	159	342
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	77.6	194	417	898
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	77.5	189	408	879
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	78.1	208	449	966
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	80.1	282	607	1308

Notes:
[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Table 4.11-17. Opening Year Cumulative (2028) With Project (OYC) Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	79.0	237	511	1101
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	79.0	238	514	1107
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	78.1	152	328	707
4	Barton St.	n/o Van Buren Blvd.	Sensitive	68.1	RW	RW	115
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	74.5	109	235	507
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	74.1	105	227	488

Table 4.11-17. Opening Year Cumulative (2028) With Project (OYC) Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
7	Day St.	n/o Alessandro Blvd.	Sensitive	68.7	RW	78	168
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	72.3	63	135	291
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.9	236	508	1094
10	Alessandro Blvd.	e/o Barton St.	Sensitive	79.0	237	511	1101
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	77.5	189	406	875
12	Alessandro Blvd.	w/o Day St.	Sensitive	76.2	173	373	804
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	77.5	190	410	884
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	76.3	177	382	822
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.9	74	159	342
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	77.7	195	421	907
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	77.6	192	414	891
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	78.2	212	458	986
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	80.3	291	626	1348

Notes:
[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Table 4.11-18. Horizon Year (2045) Without Project Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	79.6	261	563	1212
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	79.6	262	564	1216
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	78.7	168	362	779
4	Barton St.	n/o Van Buren Blvd.	Sensitive	68.8	RW	59	127
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	74.7	113	243	523

Table 4.11-18. Horizon Year (2045) Without Project Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	73.7	99	213	459
7	Day St.	n/o Alessandro Blvd.	Sensitive	69.4	RW	86	185
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	72.9	69	149	320
9	Alessandro Blvd.	w/o Barton St.	Sensitive	79.5	257	554	1194
10	Alessandro Blvd.	e/o Barton St.	Sensitive	79.5	259	558	1203
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	78.0	206	444	956
12	Alessandro Blvd.	w/o Day St.	Sensitive	76.8	191	411	886
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	74.6	121	261	562
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	76.8	191	411	886
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	74.4	108	233	503
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	78.3	215	463	997
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	78.2	211	454	977
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	78.8	232	500	1077
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	80.7	312	673	1449

Notes:
1 Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
2 The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Table 4.11-19. Horizon Year (2045) With Project Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	79.6	263	566	1220
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	79.7	264	570	1227
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	78.7	168	362	781
4	Barton St.	n/o Van Buren Blvd.	Sensitive	68.8	RW	60	128
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	75.1	120	258	557
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	74.8	117	252	544
7	Day St.	n/o Alessandro Blvd.	Sensitive	69.4	RW	86	186

Table 4.11-19. Horizon Year (2045) With Project Roadway Traffic Noise Contours

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	*65 dBA CNEL*	*60 dBA CNEL*
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	73.0	70	150	323
9	Alessandro Blvd.	w/o Barton St.	Sensitive	79.6	262	564	1216
10	Alessandro Blvd.	e/o Barton St.	Sensitive	79.6	263	567	1223
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	78.2	210	452	975
12	Alessandro Blvd.	w/o Day St.	Sensitive	76.9	192	414	891
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	78.0	204	440	949
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	77.0	196	421	908
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	74.4	108	233	503
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	78.4	217	467	1006
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	78.3	213	459	989
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	78.9	236	509	1096
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	80.9	320	690	1488

Notes:
[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Existing Plus Project Traffic Noise Level Increases

An analysis of existing traffic noise levels plus traffic noise generated by Specific Plan buildout has been included to fully analyze all the existing traffic scenarios identified in the West Campus Upper Plateau Traffic Analysis. This scenario is analyzed to show the potential impacts of the Project using the existing baseline consistent with the Project Traffic Analysis. Table 4.11-12 shows the Existing conditions CNEL noise levels. The Existing exterior noise levels are expected to range from 65.8 to 78.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 4.11-13 shows the Existing Plus Project conditions will range from 65.9 to 78.2 dBA CNEL. Table 4.11-20 shows that the Project off-site traffic noise level impacts will range from 0.0 to 4.4 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4.11-7, one of the non-sensitive study area roadway segments is shown to experience **potentially significant** off-site traffic noise level increases due to the proposed Project conditions. The segment is described below.

- Cactus Avenue east of Meridian Parkway (Segment No. 13).

All other roadway segments would not experience noise level increases under Existing + Project conditions that would exceed the established thresholds of significance. Refer to discussion under sub-heading Off-Site Traffic Noise Impacts Summary for a discussion of mitigations considered and dismissed. Off-site traffic noise impacts for the Cactus Avenue segment east of Meridian Parkway are considered an unavoidably significant impact for which there are no feasible mitigation measures available to reduce to a level less than significant.

Table 4.11-20. Traffic Noise Level Changes Existing Versus Existing Plus Project

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	*With Project*	*Project Addition*	*Limit*	*Exceeded?*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	78.1	78.2	0.1	1.5	No
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	77.8	77.9	0.1	1.5	No
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	75.8	75.8	0.0	1.5	No
4	Barton St.	n/o Van Buren Blvd.	Sensitive	65.8	65.9	0.1	1.5	No
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	72.9	73.5	0.6	3.0	No
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	71.9	73.5	1.6	3.0	No
7	Day St.	n/o Alessandro Blvd.	Sensitive	67.5	67.6	0.1	1.5	No
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	71.3	71.4	0.1	3.0	No
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.1	78.2	0.1	1.5	No
10	Alessandro Blvd.	e/o Barton St.	Sensitive	78.1	78.2	0.1	1.5	No
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.5	76.7	0.2	3.0	No
12	Alessandro Blvd.	w/o Day St.	Sensitive	74.8	74.8	0.0	1.5	No
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	72.9	77.3	4.4	3.0	Yes
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	74.8	75.0	0.2	3.0	No
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.3	71.3	0.0	1.5	No
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	76.1	76.2	0.1	1.5	No
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	75.8	75.9	0.1	1.5	No
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	75.8	76.0	0.2	1.5	No
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.2	76.7	0.5	3.0	No

Notes:

1 Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

2 The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

3 Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4.11-7)?

Existing Plus Ambient Growth Project Traffic Noise Level Increases

Table 4.11-14 presents the Existing plus Ambient Growth conditions CNEL noise levels. The Existing plus Ambient Growth exterior noise levels are expected to range from 66.4 to 78.7 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 4.11-15 shows the EAP conditions will range from 66.5 to 78.8 dBA CNEL. Table 4.11-21 shows that the Project off-site traffic noise level increases will range from 0.0 to 4.0 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4.11-7, one of the non-sensitive study area roadway segments is shown to experience **potentially significant** off-site traffic noise level increases due to the proposed Project conditions. The segment is described below.

- Cactus Avenue east of Meridian Parkway (Segment No. 13).

All other roadway segments would not experience noise level increases under the EAP conditions that would exceed the established thresholds of significance. Refer to discussion under sub-heading Off-Site Traffic Noise Impacts Summary for a discussion of mitigations considered and dismissed. Off-site traffic noise impacts for the Cactus Avenue segment east of Meridian Parkway are considered an unavoidably significant impact for which there are no feasible mitigation measures available to reduce to a level less than significant.

Table 4.11-21. Traffic Noise Level Changes EA Versus EAP

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	*With Project*	*Project Addition*	*Limit*	*Exceeded?*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	78.7	78.8	0.1	1.5	No
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	78.4	78.5	0.1	1.5	No
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	76.4	76.4	0.0	1.5	No
4	Barton St.	n/o Van Buren Blvd.	Sensitive	66.4	66.5	0.1	1.5	No
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	73.6	74.1	0.5	3.0	No
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	72.5	73.9	1.4	3.0	No
7	Day St.	n/o Alessandro Blvd.	Sensitive	68.1	68.2	0.1	1.5	No
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	71.9	72.0	0.1	3.0	No
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.7	78.8	0.1	1.5	No
10	Alessandro Blvd.	e/o Barton St.	Sensitive	78.7	78.8	0.1	1.5	No
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	77.1	77.3	0.2	3.0	No
12	Alessandro Blvd.	w/o Day St.	Sensitive	75.4	75.4	0.0	1.5	No

Table 4.11-21. Traffic Noise Level Changes EA Versus EAP

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	*With Project*	*Project Addition*	*Limit*	*Exceeded?*
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	73.5	77.5	4.0	3.0	**Yes**
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	75.4	75.6	0.2	3.0	No
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.9	71.9	0.0	1.5	No
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	76.7	76.8	0.1	1.5	No
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	76.4	76.5	0.1	1.5	No
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	76.4	76.6	0.2	1.5	No
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.8	77.2	0.4	3.0	No

Notes:
1 Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
2 The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
3 Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4.11-7)?

Opening Year Cumulative 2028 Project Traffic Noise Level Contributions

Table 4.11-16 presents the Opening Year Cumulative (2028) conditions CNEL noise levels. The Opening Year Cumulative (2028) exterior noise levels are expected to range from 68.0 to 80.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 4.11-17 shows the Opening Year Cumulative (2028) with Project conditions will range from 68.1 to 80.3 dBA CNEL. Table 4.11-22 shows that the Project off-site traffic noise level increases will range from 0.0 to 4.0 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4.11-7, one of the non-sensitive study area roadway segments is shown to experience **potentially significant** off-site traffic noise level increases due to the proposed Project conditions. The segment is described below.

- Cactus Avenue east of Meridian Parkway (Segment No. 13).

All other roadway segments would not experience noise level increases under Opening Year Cumulative (2028) with Project conditions that would exceed the established thresholds of significance. Refer to discussion under sub-heading Off-Site Traffic Noise Impacts Summary for a discussion of mitigations considered and dismissed. Off-site traffic noise impacts for the Cactus Avenue segment east of Meridian Parkway are considered an unavoidably significant impact for which there are no feasible mitigation measures available to reduce to a level less than significant.

Table 4.11-22. Traffic Noise Level Changes Opening Year Cumulative 2028 Versus Opening Year Cumulative 2028 With Project

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	*With Project*	*Project Addition*	*Limit*	*Exceeded?*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	78.9	79.0	0.1	1.5	No
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	78.9	79.0	0.1	1.5	No
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	78.1	78.1	0.0	1.5	No
4	Barton St.	n/o Van Buren Blvd.	Sensitive	68.0	68.1	0.1	1.5	No
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	74.0	74.5	0.5	3.0	No
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	72.8	74.1	1.3	3.0	No
7	Day St.	n/o Alessandro Blvd.	Sensitive	68.7	68.7	0.0	1.5	No
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	72.2	72.3	0.1	3.0	No
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.8	78.9	0.1	1.5	No
10	Alessandro Blvd.	e/o Barton St.	Sensitive	78.8	79.0	0.2	1.5	No
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	77.3	77.5	0.2	3.0	No
12	Alessandro Blvd.	w/o Day St.	Sensitive	76.1	76.2	0.1	1.5	No
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	73.5	77.5	4.0	3.0	**Yes**
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	76.1	76.3	0.2	3.0	No
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.9	71.9	0.0	1.5	No
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	77.6	77.7	0.1	1.5	No
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	77.5	77.6	0.1	1.5	No
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	78.1	78.2	0.1	1.5	No
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	80.1	80.3	0.2	3.0	No

Notes:

1 Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

2 The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

3 Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4.11-7)?

Horizon Year 2045 Project Traffic Noise Level Contributions

Table 4.11-18 presents the Horizon Year (2045) conditions CNEL noise levels. The Horizon Year (2045) exterior noise levels are expected to range from 68.8 to 80.7 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 4.11-19 shows the Horizon Year (2045) with Project conditions will range from 68.8 to 80.9 dBA CNEL. Table 4.11-23 shows that the Project off-site traffic noise level increases will range from 0.0 to 3.4 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4.11-7, one of the non-sensitive study area roadway segments is shown to experience **potentially significant** off-site traffic noise level increases due to the proposed Project conditions. The segment is described below.

- Cactus Avenue east of Meridian Parkway (Segment No. 13).

All other roadway segments would not experience noise level increases under Horizon Year (2045) with Project conditions that would exceed the established thresholds of significance. Refer to discussion under sub-heading Off-Site Traffic Noise Impacts Summary for a discussion of mitigations considered and dismissed. Off-site traffic noise impacts for the Cactus Avenue segment east of Meridian Parkway are considered an unavoidably significant impact for which there are no feasible mitigation measures available to reduce to a level less than significant.

Table 4.11-23. Traffic Noise Level Changes Horizon Year 2045 Versus Horizon Year 2045 with Project

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	*With Project*	*Project Addition*	*Limit*	*Exceeded?*
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	79.6	79.6	0.0	1.5	No
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	79.6	79.7	0.1	1.5	No
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	78.7	78.7	0.0	1.5	No
4	Barton St.	n/o Van Buren Blvd.	Sensitive	68.8	68.8	0.0	1.5	No
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	74.7	75.1	0.4	3.0	No
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	73.7	74.8	1.1	3.0	No
7	Day St.	n/o Alessandro Blvd.	Sensitive	69.4	69.4	0.0	1.5	No
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	72.9	73.0	0.1	3.0	No
9	Alessandro Blvd.	w/o Barton St.	Sensitive	79.5	79.6	0.1	1.5	No
10	Alessandro Blvd.	e/o Barton St.	Sensitive	79.5	79.6	0.1	1.5	No
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	78.0	78.2	0.2	3.0	No
12	Alessandro Blvd.	w/o Day St.	Sensitive	76.8	76.9	0.1	1.5	No

Table 4.11-23. Traffic Noise Level Changes Horizon Year 2045 Versus Horizon Year 2045 with Project

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	*With Project*	*Project Addition*	*Limit*	*Exceeded?*
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	74.6	78.0	3.4	3.0	**Yes**
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	76.8	77.0	0.2	3.0	No
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	74.4	74.4	0.0	1.5	No
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	78.3	78.4	0.1	1.5	No
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	78.2	78.3	0.1	1.5	No
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	78.8	78.9	0.1	1.5	No
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	80.7	80.9	0.2	3.0	No

Notes:
1 Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
2 The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
3 Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4.11-7)?

Off-Site Traffic Noise Impacts Summary

The study area roadway segment that would exceed the established thresholds of significance criteria is limited to the non-noise sensitive land uses adjacent to Cactus Avenue east of Meridian Parkway (Segment No. 13). All other roadway segments will experience off-site traffic noise level impacts that are considered less than significant. The off-site Traffic Noise Analysis shows that Specific Plan traffic noise level increases on one non-sensitive study area, roadway segment no. 13, would exceed the incremental noise level increase thresholds for the following traffic conditions.

- Existing plus Project (E+P) Conditions
- Existing plus Ambient Growth plus Project (EAP)
- Opening Year Cumulative (2028) With Project Conditions (OYCP)
- Horizon Year (2045) With Project Conditions

Segment No. 13 is in a developed industrial area and is not located immediately adjacent to any noise sensitive land uses. To reduce the **potentially significant** traffic noise level increases on the study area roadway segment (Segment No. 13) for the traffic conditions mentioned above, a potential noise mitigation measure of incorporating rubberized asphalt was considered, as discussed below.

Rubberized Asphalt

Due to the potential noise attenuation benefits, rubberized asphalt is considered as a mitigation measure for the off-site Project-related traffic noise level increases. To reduce traffic noise levels at the noise source, Caltrans research has shown that rubberized asphalt can provide noise attenuation of approximately 4 dBA for automobile

traffic noise levels. Changing the pavement type of a roadway has been shown to reduce the amount of tire/pavement noise produced at the source under both near-term and long-term conditions. Traffic noise is generated primarily by the interaction of the tires and pavement, the engine, and exhaust systems. For automobile noise, as much as 75% to 90% of traffic noise is generated by the interaction of the tires and pavement, especially when traveling at higher and constant speeds. According to research conducted by Caltrans and the Canadian Ministry of Transportation and Highways, a 4 dBA reduction in tire/pavement noise is attainable using rubberized asphalt under typical operating conditions.

The effectiveness of reducing traffic noise levels on roadways with high percentages of heavy trucks is limited, since the heavy truck engine and exhaust noise is not affected by rubberized alternative pavement due to the truck engine and exhaust stack height above the pavement itself. Per Caltrans guidance, a truck stack height is modeled using a height of 11.5 feet above the road. With the primary off-site traffic noise source for the Project consisting of heavy trucks with a stack height of 11.5 feet off the ground, the tire/pavement noise reduction benefits associated rubberized asphalt will be primarily limited to autos.

While the off-site Project-related traffic noise level increases could theoretically be reduced with the 4 dBA reduction provided by rubberized asphalt, the reduction would not provide reliable benefits for the noise levels generated by heavy truck traffic. This is, as previously stated, due to the noise source height difference between automobiles and trucks. While rubberized asphalt would provide some noise reduction, this noise study recognizes that this is only effective for tire-on-pavement noise at higher speeds and would not reduce truck-related off-site traffic noise levels associated with truck engine and exhaust stacks to less than significant levels (i.e., a minimum of 1.2 dBA reduction). Since the use of rubberized asphalt would not lower the off-site traffic noise levels below a level of significance, rubberized asphalt is not proposed as mitigation for the Project.

Rubberized asphalt was considered as a potential noise mitigation measure to reduce the potentially significant off-site traffic noise level increases shown on Tables 4.11-20 to 4.11-23. However, as discussed above, the use of rubberized asphalt would not significantly reduce the off-site traffic noise level increases to the non-noise sensitive land uses adjacent to Cactus Avenue east of Meridian Parkway (Segment No. 13). Therefore, the Specific Plan-related off-site traffic noise level increases are considered a **significant and unavoidable impact** for the non-noise sensitive land uses adjacent to Cactus Avenue east of Meridian Parkway (Segment No. 13). All other roadway segments would experience off-site traffic noise level impacts that are considered less than significant.

On-Site Operational Noise

This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities within the Specific Plan Area. To present the potential worst-case noise conditions, this analysis assumes the Specific Plan would be operational 24 hours per day, seven days per week. Consistent with similar warehouse and industrial uses, the Specific Plan business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. The on-site Specific Plan-related noise sources are expected to include loading dock activity, roof-top air conditioning, trash enclosure activity, parking lot vehicle movements, truck movements, and park activities.

To estimate the Specific Plan operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the Specific Plan (Appendix M provides further detail regarding the operational noise source measurement program). A description of each of the reference noise levels used to estimate the Specific Plan operational noise impacts follows the summary

presented in Table 4.11-24. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, roof-top air conditioning, trash enclosure activity, parking lot vehicle movements, and truck movements all operating at the same time. These sources of noise activity will likely vary throughout the day. The locations of major on-site noise sources associated with the Specific Plan are depicted on Figure 4.11-9, Operational Noise Source Locations.

Table 4.11-24. Hourly Average Noise Level Measurement Results for Reference Sound Sources

Noise Source	Noise Source Height (Feet)	Min./Hour		Reference Noise Level (dBA L_{eq}) @ 50 Feet	Sound Power Level (dBA)
		Day	*Night*		
Loading Dock Activity	8’	60	60	62.8	103.4
Roof-Top Air Conditioning Units	5’	39	28	57.2	88.9
Trash Enclosure Activity	5’	10	10	57.3	89.0
Parking Lot Vehicle Movements	5’	60	60	56.1	87.8
Truck Movements	8’	—	—	59.8	93.2
Park Activities	5’	60’	0’	49.4	81.1

Source: Appendix M

Loading Dock Activity

The reference loading dock activities are intended to describe the typical outdoor operational noise activities associated with the Specific Plan. Since the noise levels generated by cold storage loading dock activity can be slightly higher due to the use of refrigerated trucks or reefers, the loading dock noise level includes truck idling, reefer activity (refrigerator truck/cold storage), deliveries, backup alarms, trailer docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background operation activities. The reference noise level measurement was taken in the center of the loading dock activity area and represents multiple concurrent noise sources resulting in a combined noise level of 65.7 dBA L_{eq} at a uniform distance of 50 feet. Specifically, the reference noise level measurement represents one truck located approximately 30 feet from the noise level meter with another truck passing by to park roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement, a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked.

Roof-Top Air Conditioning Units

The noise level measurements describe a single mechanical roof-top air conditioning unit. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. At the uniform reference distance of 50 feet, the reference noise levels are 57.2 dBA L_{eq}. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for an average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. These operating conditions reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. For this noise analysis, the air conditioning units are expected to be located on the roof of the Specific Plan buildings.

Trash Enclosure Activity

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Specific Plan Area. The measured reference noise level at the uniform 50-foot reference distance is 57.3 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Specific Plan's proposed buildings. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

Parking Lot Vehicle Movements

To describe the on-site parking lot activity, a long-term 29-hour reference noise level measurement was collected in the center of activity within the staff parking lot of a warehouse distribution center. At 50 feet from the center of activity, the parking lot produced a reference noise level of 56.1 dBA L_{eq}. Parking activities are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours. The parking lot noise levels are mainly due to cars pulling in and out of parking spaces in combination with car doors opening and closing.

Truck Movements

The truck movements reference noise level measurement was collected over a period of 1 hour and 28 minutes and represents multiple heavy trucks entering and exiting the outdoor loading dock area producing a reference noise level of 59.8 dBA L_{eq} at 50 feet. The noise sources included at this measurement location account for trucks entering and existing the Specific Plan driveways and maneuvering in and out of the outdoor loading dock activity area.

Park Activities

To represent the potential noise level impacts associated with the Project's Park activities, a reference noise level measurement was collected at the Founders Park in the unincorporated community of Ladera Ranch in the County of Orange. The reference noise levels collected at the Founders Park are expected to reflect the noise level activities within the open space-recreation land use areas of the Project site, since the reference noise level measurement includes girls' youth soccer games, coaches shouting instructions, and parents speaking on cell phones at five feet from the noise level measurement location, and background noise levels from kids playing on swing sets and people cheering and clapping at 50 feet from the noise level measurement location. Using the uniform reference distance of 50 feet, the reference park activity noise level is 49.4 dBA L_{eq}. The playground activities are estimated to occur for 60 minutes during the peak hour conditions.

Operational Noise Modeling (CADNA A)

To fully describe the exterior operational noise levels from the Specific Plan, Urban Crossroads Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground

absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by each noise source.

Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the CadnaA noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix M includes a more detailed description of the CadnaA modeling effort used to estimate the Specific Plan operational noise levels presented in this sub-section.

Project Operational Noise (Modeling Results)

Using the reference noise levels to represent the Specific Plan operations that include loading dock activity, roof-top air conditioning, trash enclosure activity, parking lot vehicle movements, truck movements, and park activities, CadnaA was used to calculate the operational source noise levels that are expected to be generated at the Specific Plan Area and the Specific Plan-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 4.11-25 shows the Specific Plan operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 33.9 to 47.7 dBA L_{eq}.

Table 4.11-25. Project Operational Noise Levels (Daytime)

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)									
	R1	*R2*	*R3*	*R4*	*R5*	*R6*	*R7*	*R8*	*R9*	*R10*
Loading Dock Activity	45.3	42.0	36.5	37.4	29.4	43.2	39.4	41.6	33.1	36.8
Roof-Top Air Conditioning Units	36.2	35.2	33.2	27.6	25.9	34.7	31.3	35.9	29.2	31.7
Trash Enclosure Activity	13.6	9.8	5.8	6.4	0.0	14.7	12.7	20.9	5.6	12.1
Parking Lot Vehicle Movements	27.1	22.7	19.0	20.4	12.3	26.1	22.2	34.1	24.1	19.9
Truck Movements	43.0	38.6	36.1	41.9	30.8	43.5	35.8	45.3	35.4	36.7
Park Activities	22.3	13.6	5.7	3.6	2.0	14.8	15.7	27.6	27.3	20.8
Total (All Noise Sources)	**47.7**	**44.3**	**40.3**	**43.4**	**33.9**	**46.7**	**41.5**	**47.4**	**38.5**	**40.5**

Note:
[1] See Figure 4.11-7 for the noise source locations. CadnaA noise model calculations are included in Appendix M.

Table 4.11-26 shows the Specific Plan operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 31.0 to 45.9 dBA L_{eq}. The differences between the daytime and nighttime noise levels are largely related to the estimated duration of noise activity as outlined in Appendix M.

Table 4.11-26. Project Operational Noise Levels (Nighttime)

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA L_{eq})									
	R1	*R2*	*R3*	*R4*	*R5*	*R6*	*R7*	*R8*	*R9*	*R10*
Loading Dock Activity	45.3	42.0	36.5	37.4	29.4	43.2	39.4	41.6	33.1	36.8
Roof-Top Air Conditioning Units	33.8	32.8	30.8	25.2	23.5	32.2	28.9	33.5	26.8	29.3
Trash Enclosure Activity	12.7	8.8	4.8	5.5	0.0	13.7	11.7	20.0	4.6	11.2
Parking Lot Vehicle Movements	27.1	22.7	19.0	20.4	12.3	26.1	22.2	34.1	24.1	19.9
Truck Movements	34.0	29.6	27.1	32.9	21.8	34.5	26.8	36.2	26.3	27.7
Park Activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (All Noise Sources)	**45.9**	**42.8**	**38.0**	**39.0**	**31.0**	**44.1**	**40.1**	**43.7**	**35.1**	**38.0**

Note:
[1] See Figure 4.11-7 for the noise source locations. CadnaA noise model calculations are included in Appendix M.

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the March JPA, County of Riverside and City of Riverside exterior noise level standards at the nearest noise-sensitive receiver locations. Table 4.11-27 shows the operational noise levels associated with West Campus Upper Plateau Project would not exceed the daytime and nighttime exterior noise level standards. Therefore, the operational noise impacts are considered **less than significant** at the nearby noise-sensitive receiver locations, and no mitigation is required.

Table 4.11-27. Operational Noise Level Compliance

Receiver Location[1]	Jurisdiction	Project Operational Noise Levels (dBA L_{eq})[2]		Noise Level Standards (dBA L_{eq})[3]		Noise Level Standards Exceeded?[4]	
		Daytime	*Nighttime*	*Daytime*	*Nighttime*	*Daytime*	*Nighttime*
R1	County of Riverside	47.7	45.9	65	55	No	No
R2		44.3	42.8	65	55	No	No
R3		40.3	38.0	65	55	No	No
R4	City of Riverside	43.4	39.0	55	45	No	No
R5		33.9	31.0	55	45	No	No
R6		46.7	44.1	55	45	No	No
R7		41.5	40.1	55	45	No	No
R8		47.4	43.7	55	45	No	No
R9		38.5	35.1	55	45	No	No
R10		40.5	38.0	55	45	No	No

Notes:
[1] See Figure 4.11-6 for the receiver locations.
[2] Proposed Project operational noise levels as shown on Tables 4.11-27 and 4.11-28.
[3] Exterior noise level standards, as shown on Table 4.11-7.
[4] Do the estimated Project operational noise source activities exceed the noise level standards?
"Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

Operational Noise Level Contributions Combined With Ambient

To describe the Specific Plan operational noise level increases, the Specific Plan operational noise levels are combined with the existing ambient noise levels measurements for the nearest receiver locations potentially impacted by Specific Plan operational noise sources. Since the units used to measure noise, decibels (dB), are

logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Specific Plan-operational and existing ambient noise levels. The difference between the combined Specific Plan and ambient noise levels describe the Specific Plan noise level contributions to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Specific Plan-source noise is added to the daytime and nighttime ambient conditions are presented on Tables 4.11-28 and 4.11-29, respectively. As indicated on Tables 4.11-28 and 4.11-29, the Specific Plan would generate daytime and nighttime operational noise level increases ranging from 0.1 to 2.3 dBA L_{eq} at the nearby receiver locations. Project-related operational noise level contributions would therefore remain below the operational noise level significance criteria presented in Table 4.11-7; consequently, Project operational noise contribution increases at the sensitive receiver locations would be **less than significant**, and no mitigation is required.

Table 4.11-28. Project Operational Noise Level Contributions (Daytime)

Receiver Location	Total Project Operational Noise Level	Measurement Location	Reference Ambient Noise Levels	Combined Project and Ambient	Project Increase	Increase Criteria	Increase Criteria Exceeded?
R1	47.7	L1	52.7	53.9	1.2	5.0	No
R2	44.3	L2	51.8	52.5	0.7	5.0	No
R3	40.3	L3	50.0	50.4	0.4	5.0	No
R4	43.4	L4	48.4	49.6	1.2	5.0	No
R5	33.9	L5	49.0	49.1	0.1	5.0	No
R6	46.7	L5	49.0	51.0	2.0	5.0	No
R7	41.5	L5	49.0	49.7	0.7	5.0	No
R8	47.4	L7	51.6	53.0	1.4	5.0	No
R9	38.5	L8	47.3	47.8	0.5	5.0	No
R10	40.5	L1	52.7	53.0	0.3	5.0	No

Source: Appendix M.

Table 4.11-29. Project Operational Noise Level Contributions (Nighttime)

Receiver Location	Total Project Operational Noise Level	Measurement Location	Reference Ambient Noise Levels	Combined Project and Ambient	Project Increase	Increase Criteria	Increase Criteria Exceeded?
R1	45.9	L1	50.3	51.7	1.4	5.0	No
R2	42.8	L2	49.0	49.9	0.9	5.0	No
R3	38.0	L3	46.5	47.1	0.6	5.0	No
R4	39.0	L4	45.0	46.0	1.0	5.0	No
R5	31.0	L5	45.6	45.7	0.1	5.0	No
R6	44.1	L5	45.6	47.9	2.3	5.0	No
R7	40.1	L5	45.6	46.7	1.1	5.0	No
R8	43.7	L7	47.5	49.0	1.5	5.0	No

Table 4.11-29. Project Operational Noise Level Contributions (Nighttime)

Receiver Location	Total Project Operational Noise Level	Measurement Location	Reference Ambient Noise Levels	Combined Project and Ambient	Project Increase	Increase Criteria	Increase Criteria Exceeded?
R9	35.1	L8	43.9	44.4	0.5	5.0	No
R10	38.0	L1	50.3	50.5	0.2	5.0	No

Source: Appendix M.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No construction activities would occur within the Conservation Easement, and no change to existing conditions would occur. As such, **no impacts** with respect to noise would occur with the establishment of the Conservation Easement.

Threshold NOI-2. ***Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?***

Specific Plan Area (Campus Development, Park, Infrastructure Improvements)

Construction

Construction Equipment and Activity Vibration Impacts

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Specific Plan construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Specific Plan Area were estimated by data published by the FTA (FTA 2018). However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 4.11-30.

Table 4.11-30. Vibration Source Levels for Construction Equipment

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Source: FTA 2018

Using the vibration source level of construction equipment provided on Table 4.11-31 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Specific Plan vibration impacts. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

Table 4.11-31 presents the expected Specific Plan related vibration levels at the nearby receiver locations employing this equation, the vibration source levels from Table 4.11-30, and the distance between construction equipment operation areas and the closest residential receivers. At distances ranging from 304 to 1,596 feet from construction activities, construction vibration velocity levels are estimated to range from 0.000 to 0.001 in/sec RMS and would remain below the County of Riverside threshold of 0.01 in/sec RMS at all receiver locations, as shown in Table 4.11-32. Moreover, the impacts at the site of the nearest sensitive receiver locations are unlikely to be sustained during the entire construction period but would occur rather only during the times that heavy construction equipment is operating adjacent to the Specific Plan Area perimeter. Therefore, the vibration impacts are considered **less than significant** during the construction activities, and no mitigation is required.

Table 4.11-31. Project Construction Vibration Levels

Receiver	Distance to Const. Activity (Feet)	Receiver Levels (in/sec) RMS					Threshold (in/sec) RMS	Threshold Exceeded?
		Small Bulldozer	*Jack-hammer*	*Loaded Trucks*	*Large Bulldozer*	*Peak Vibration*		
R1	342’	0.000	0.000	0.001	0.001	0.001	0.01	No
R2	311’	0.000	0.001	0.001	0.001	0.001	0.01	No
R3	304’	0.000	0.001	0.001	0.001	0.001	0.01	No
R4	1,057’	0.000	0.000	0.000	0.000	0.000	0.01	No
R5	1,596’	0.000	0.000	0.000	0.000	0.000	0.01	No
R6	787’	0.000	0.000	0.000	0.000	0.000	0.01	No
R7	996’	0.000	0.000	0.000	0.000	0.000	0.01	No
R8	695’	0.000	0.000	0.000	0.000	0.000	0.01	No
R9	328’	0.000	0.001	0.001	0.001	0.001	0.01	No
R10	322’	0.000	0.001	0.001	0.001	0.001	0.01	No

Source: Appendix M.

Operations

To assess the potential vibration impacts from truck haul trips associated with operational activities, the County of Riverside threshold for vibration of 0.01 in/sec RMS is used. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. According to the FTA Transit Noise Impact and Vibration Assessment, trucks rarely create vibration that exceeds 70 VdB or 0.003 in/sec RMS (unless there are bumps due to frequent potholes in the road). Trucks transiting on site would be travelling at very low speeds so it is expected that delivery truck vibration impacts at nearby homes would satisfy the County of Riverside vibration threshold of 0.01 in/sec RMS, and therefore, would be **less than significant**. No mitigation is required.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No construction activities would occur within the Conservation Easement, and no change to existing conditions would occur. As such, **no impacts** with respect to vibration would occur with the establishment of the Conservation Easement.

4.11.6 Mitigation Measures

As discussed in Section 4.11.4, above, the Project would result in a potentially significant increase in traffic noise along one non-sensitive roadway segment, Cactus Avenue east of Meridian Parkway (Segment No. 13). Rubberized asphalt was investigated as a possible mitigation measure but would not reduce the Project-related traffic noise increase to below the significance threshold. It would also remain beyond the authority of the Project sponsors to erect a sound wall along this public street, nor would it be considered feasible to guarantee erection of a sound wall on private properties along this roadway segment.

As such, there are no feasible mitigation measures available to reduce Project-related significant traffic noise increases along the following non-sensitive roadway segment:

- Cactus Avenue east of Meridian Parkway (Segment No. 13).

4.11.7 Level of Significance After Mitigation

Because no feasible mitigation measures exist to address potentially significant traffic noise level increases along Cactus Avenue east of Meridian Parkway (Segment No. 13), the Project would result in a **significant and unavoidable impact** with respect to traffic noise increases on this one roadway segment**.** All other noise and vibration impacts associated with construction and operation of the Project would be less than significant.

4.11.8 Cumulative Effects

Construction noise and vibration impacts are highly localized (i.e., construction noise from a given site does not generally affect the community noise level at distances beyond 1,500 feet; construction vibration from a given site does not typically affect background vibration levels at distances greater than 200 feet). However, with simultaneous construction activities occurring at two or more project sites in close proximity to one another, the construction noise levels experienced at local receivers could be greater than for construction of each individual project. Nonetheless, given the large scale of the Project site, and therefore the distribution of equipment across a large area at any given point in time during Project construction, the average construction noise levels at any given residence in proximity to the Project site would not be anticipated to be materially different for Project construction efforts combined with other local projects that could overlap in construction schedule, as compared to the Project by itself. With the very rapid attenuation of ground-borne vibration levels, it is not anticipated that Project construction-related vibration would contribute to off-site vibration levels associated with other construction efforts that could occur in the region.

Non-transportation noise sources (e.g., Project operation) are typically Project-specific and highly localized (i.e., these do not generally affect the community noise level at distances beyond several hundred feet). As other development occurs in the area, noise from different types of uses (e.g., traffic, aircraft, 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 on-site non-transportation sources do not significantly contribute to cumulative noise impacts at distant locations.

The Project would generate roadway traffic, which would be added to roadway volumes generated by other projects on the assembled cumulative project list. The traffic impact assessment evaluated the resulting roadway volumes from the proposed Project, in combination with the traffic generated from the cumulative project list.

Table 4.11-32 compares existing community noise levels at receptors along roadways to which the Project would contribute trips against traffic noise levels at the same receptors for traffic generated by cumulative development in the community, including the Project.

Table 4.11-32. Traffic Noise Level Increase: Existing Versus Cumulative (with Project)

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]			Threshold	Significant
				Existing	*Cumulative With Project*	*Increase*		
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	78.1	79.6	1.5	1.5	No
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	77.8	79.7	1.9	1.5	Yes
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	75.8	78.7	2.9	1.5	Yes
4	Barton St.	n/o Van Buren Blvd.	Sensitive	65.8	68.8	3.0	1.5	Yes
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	72.9	75.1	2.2	3.0	No
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	71.9	74.8	2.9	3.0	No
7	Day St.	n/o Alessandro Blvd.	Sensitive	67.5	69.4	1.9	1.5	Yes
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	71.3	73.0	1.7	3.0	No
9	Alessandro Blvd.	w/o Barton St.	Sensitive	78.1	79.6	1.5	1.5	No
10	Alessandro Blvd.	e/o Barton St.	Sensitive	78.1	79.6	1.5	1.5	No
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.5	78.2	1.7	3.0	No
12	Alessandro Blvd.	w/o Day St.	Sensitive	74.8	76.9	2.1	1.5	Yes
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	72.9	78.0	5.1	3.0	Yes
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	74.8	77.0	2.2	3.0	No
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	71.3	74.4	3.1	1.5	Yes
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	76.1	78.4	2.3	1.5	Yes
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	75.8	78.3	2.5	1.5	Yes
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	75.8	78.9	3.1	1.5	Yes

Table 4.11-32. Traffic Noise Level Increase: Existing Versus Cumulative (with Project)

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]			Threshold	Significant
				Existing	*Cumulative With Project*	*Increase*		
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	76.2	80.9	4.7	3.0	Yes

As indicated in Table 4.11-32, 11 of the 19 roadway segments would experience traffic noise level increases from cumulative development that would exceed the applicable significance threshold, indicating that traffic increases in the community from anticipated future development would result in **significant cumulative traffic noise impacts.**

Based upon information presented in Table 4.11-23, the Project would have a negligible contribution to noise levels at 18 of the 19 roadway segments in Table 4.11-32 (a less than substantial contribution). However, the Project itself would result in a significant and unavoidable impact along Segment No. 13, and therefore would have a substantial contribution to the identified cumulative traffic noise impact. There are no feasible mitigation measures available to reduce the Project's contribution to cumulatively significant traffic noise impacts. Therefore, cumulative traffic noise impacts would remain **significant and unavoidable, as well as cumulatively considerable**.

4.11.9 References Cited

Caltrans (California Department of Transportation). 1995. Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report. June 1995. FHWA/CA/TL-95/23.

Caltrans. 2013. Technical Noise Supplement – A Technical Supplement to the Traffic Noise Analysis Protocol. Sacramento, California, September 2013.

Caltrans. 2020. Transportation and Construction Vibration Guidance Manual. April 2020.

County of Riverside. 2014. Airport Land Use Compatibility Plan. October 2004.

County of Riverside. 2015. General Plan Noise Element. December 2015.

DOT (U.S. Department of Transportation). 1978. FHWA Highway Traffic Noise Prediction Model. December 1978. FHWA-RD-77-108. Federal Highway Administration Office of Environment and Planning, Noise and Air Quality Branch

DOT. 2011. Highway Traffic Noise Analysis and Abatement Policy and Guidance. December 2011.

EPA (U.S. Environmental Protection Agency). 1979. Noise Effects Handbook A Desk Reference to Health and Welfare Effects of Noise. October 1979.. Office of Noise Abatement and Control.

FICON (Federal Interagency Committee on Noise). 1992. Federal Agency Review of Selected Airport Noise Analysis Issues. August 1992.

FTA (Federal Transit Authority). 2018. Transit Noise and Vibration Impact Assessment Manual. September 2018.

Hopler, R.B. 1998. ISEE Blasters' Handbook. Cleveland, Ohio: International Society of Explosives Engineers, 1998.

March JPA (Joint Powers Authority). 1999. General Plan Noise/Air Quality Element. 1999.

March JPA. 2022. *Local Guidelines for Implementing the California Environmental Quality Act for March Joint Powers Authority and March Inland Port Airport Authority and Successor Agency of the Former March Joint Power Redevelopment Agency and March Joint Powers Utilities Authority*. https://www.marchjpa.com/documents/docs_forms/05172022_MJPA_2022_CEQA_Guidelines.pdf.

OPR (State of California, Governor's Office of Planning and Research). 2003. General Plan Guidelines.

U.S. Air Force. 2018. Final Air Installations Compatible Use Zones Study (AICUZ) March Air Reserve Base, Riverside California. November 28, 2017. Air Force Reserve Command.

INTENTIONALLY LEFT BLANK

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: EPA, 1974

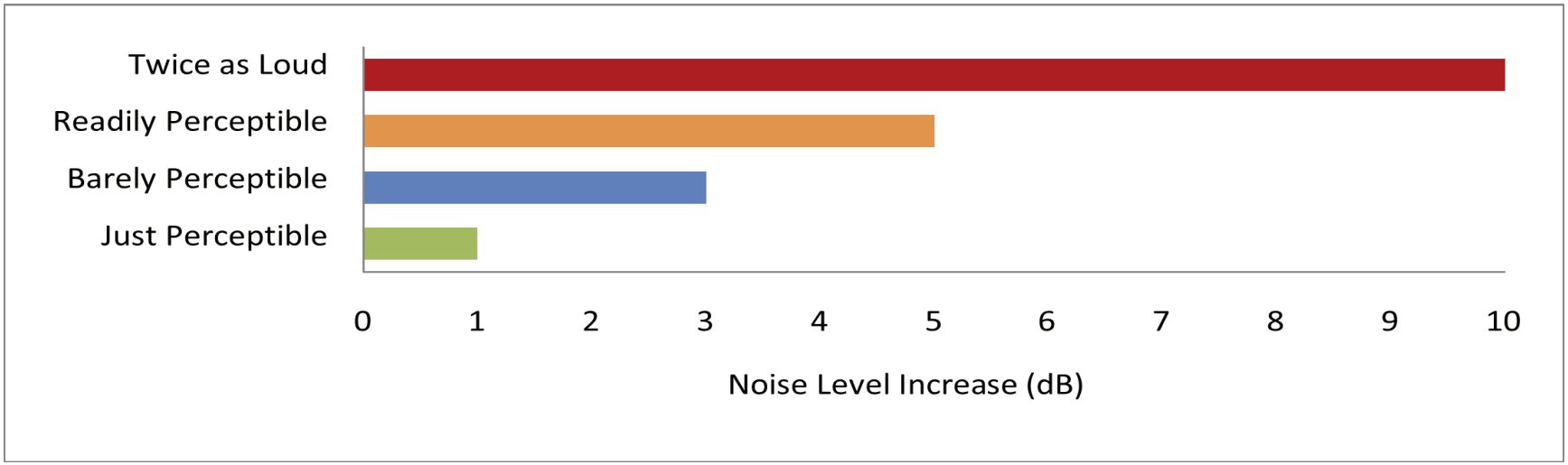
FIGURE 4.11-1

Typical Noise Levels

West Campus Upper Plateau Project

DUDEK

INTENTIONALLY LEFT BLANK



Source: Caltrain, 2013

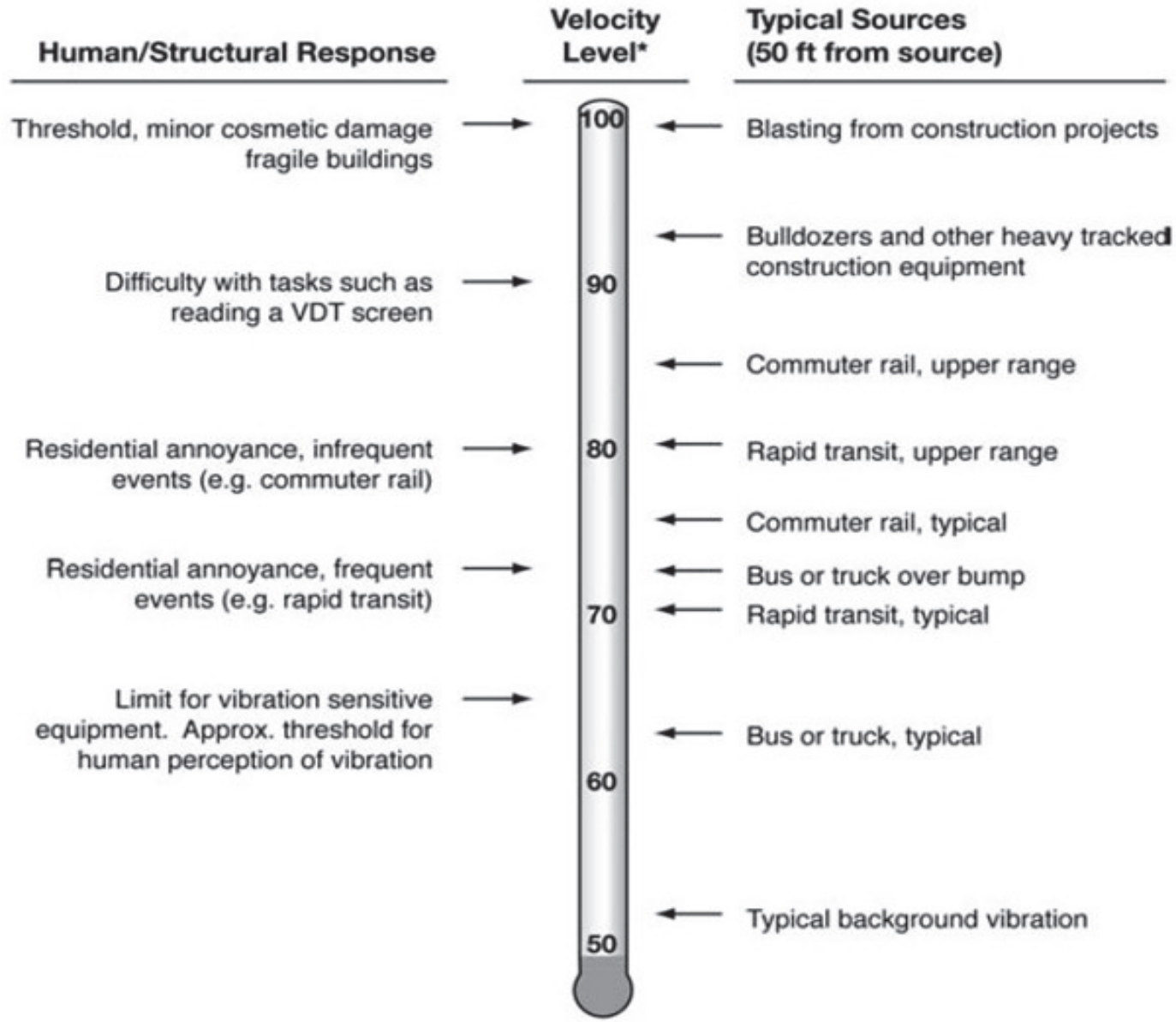
FIGURE 4.11-2

Noise Level Increase Perception

West Campus Upper Plateau Project

DUDEK

INTENTIONALLY LEFT BLANK



Source: FTA, 2018

FIGURE 4.11-3

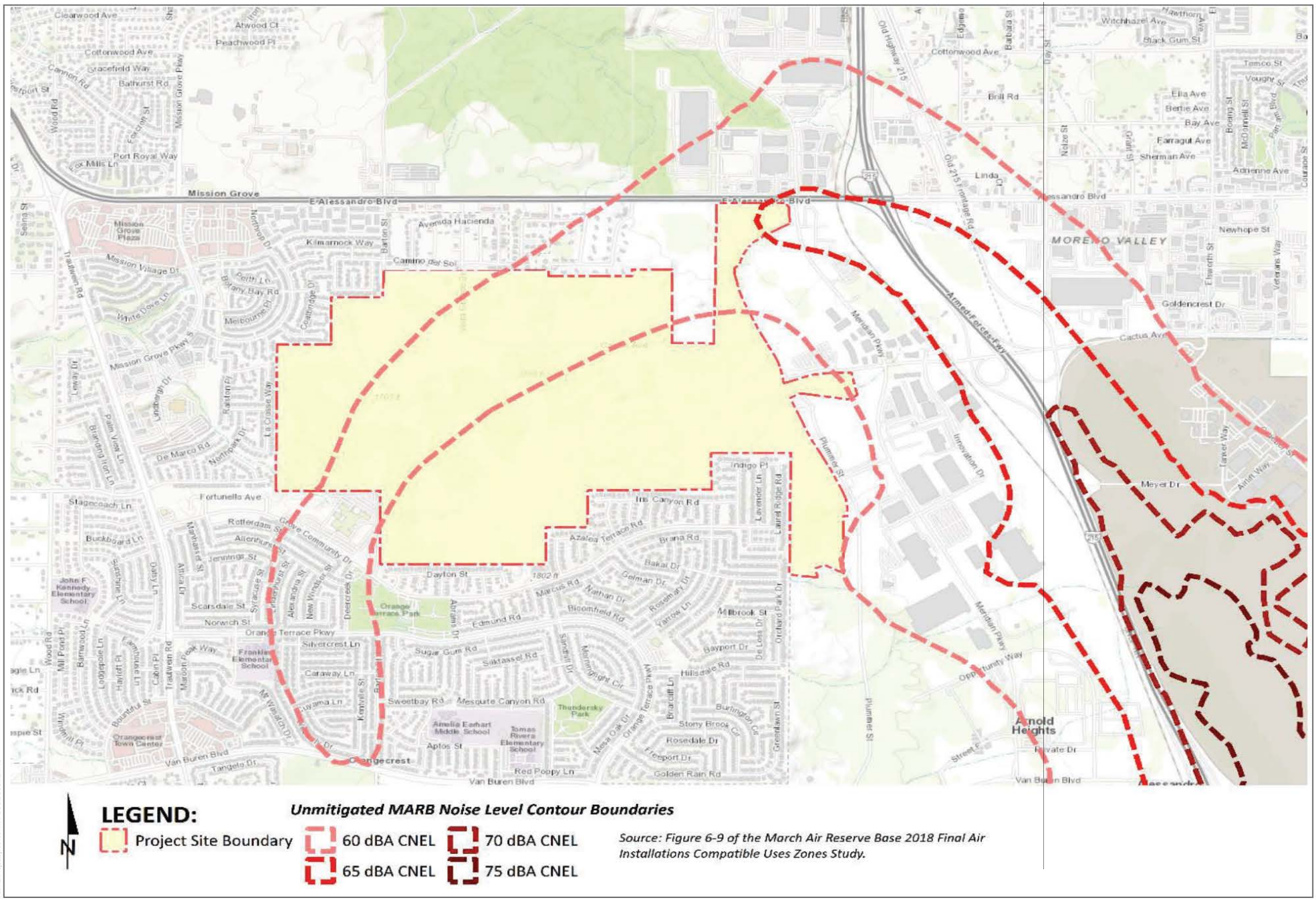
Typical Levels of Ground-Borne Vibration and Human Response

West Campus Upper Plateau Project

DUDEK

INTENTIONALLY LEFT BLANK

EXHIBIT 3-C: MARB/IPA FUTURE AIRPORT NOISE CONTOURS



SOURCE: Urban Crossroads, 2022

064-10 Noise Study

DUDEK

0 1000 2,000 Feet

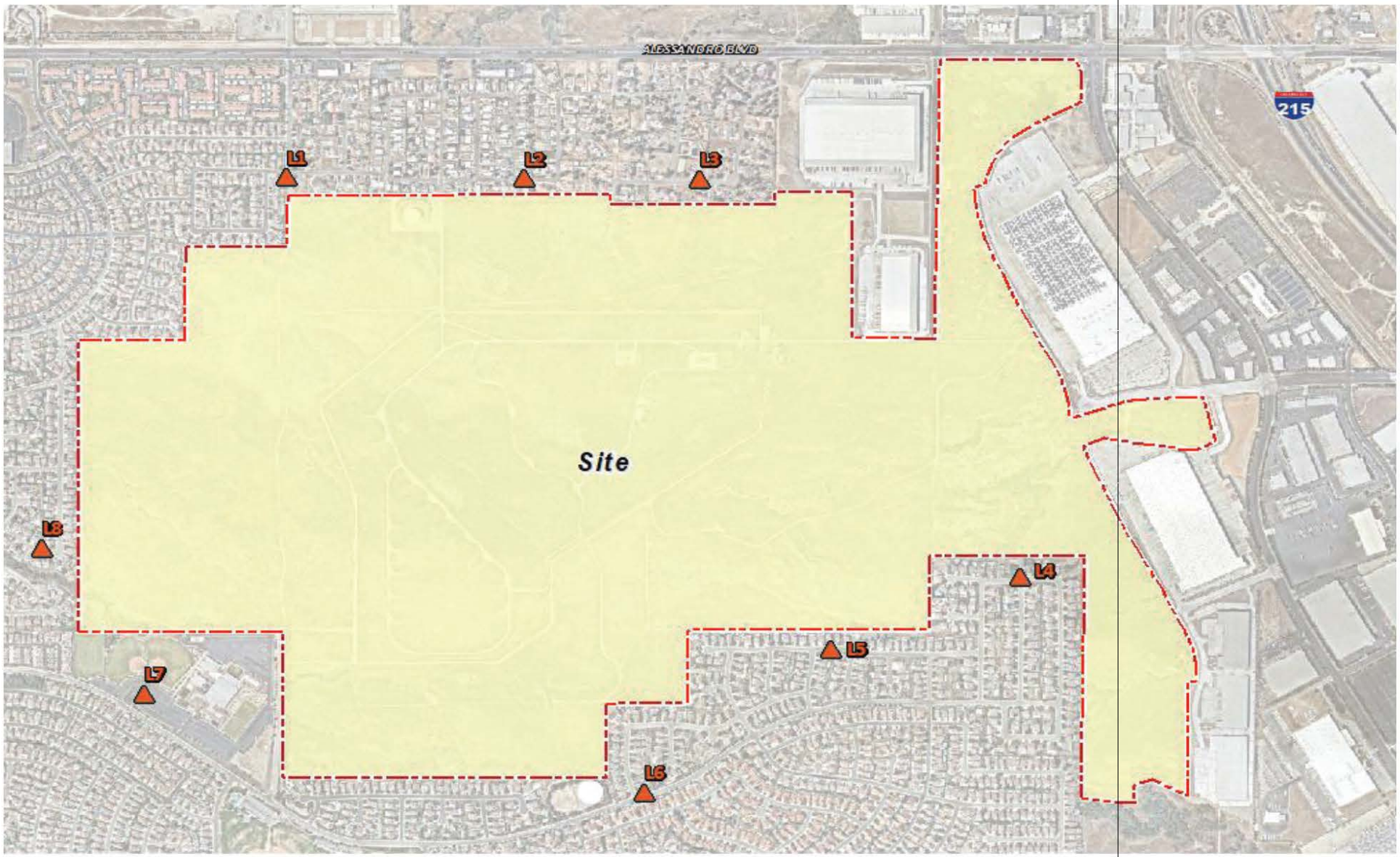
FIGURE 4.11-4

MARB/IPA Future Airport Noise Contours

West Campus Upper Plateau Project

INTENTIONALLY LEFT BLANK

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



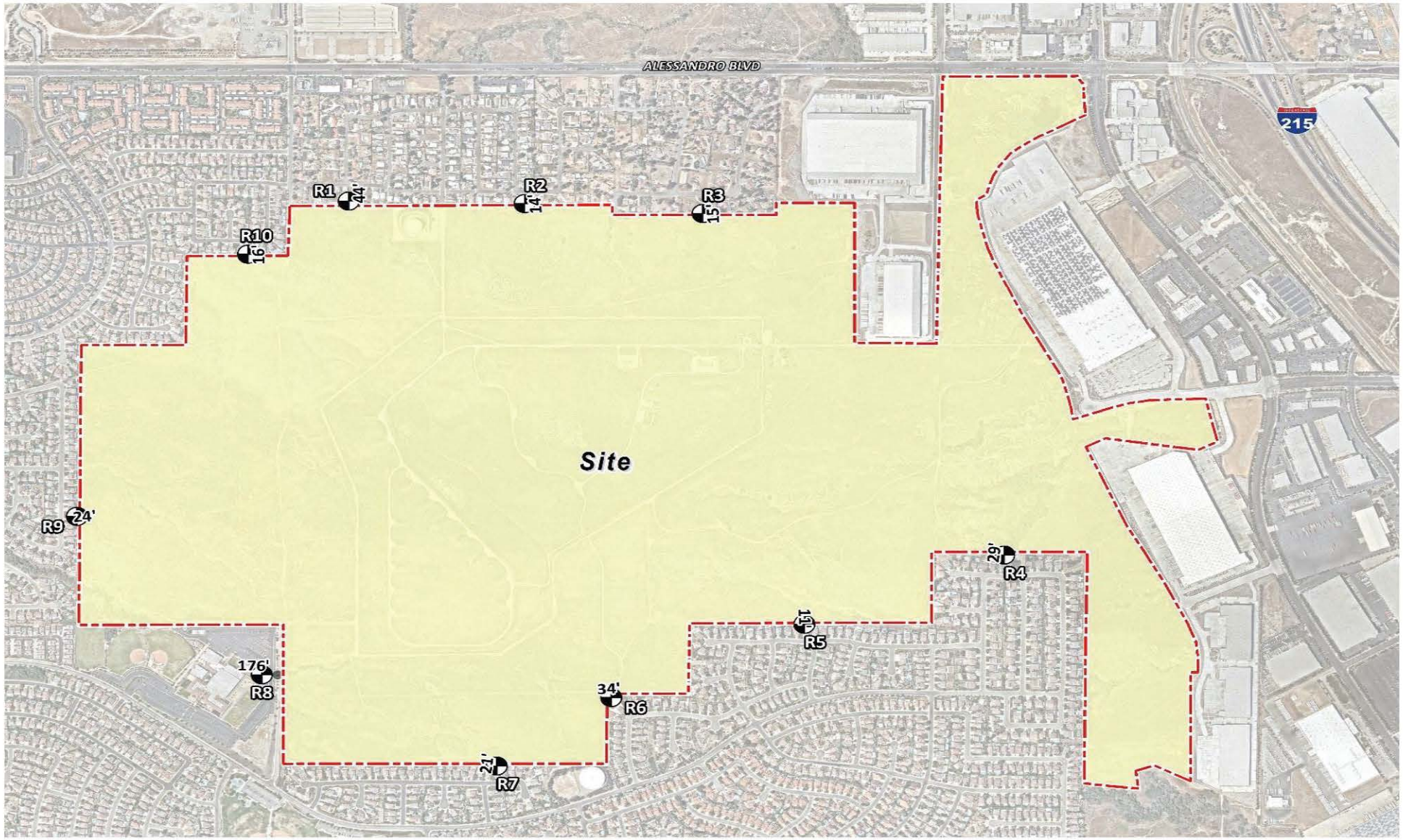
SOURCE: Urban Crossroads, 2022

FIGURE 4.11-5

Ambient Noise Measurement Locations

West Campus Upper Plateau Project

INTENTIONALLY LEFT BLANK



SOURCE: Urban Crossroads, 2022

DUDEK 0 1000 2,000 Feet

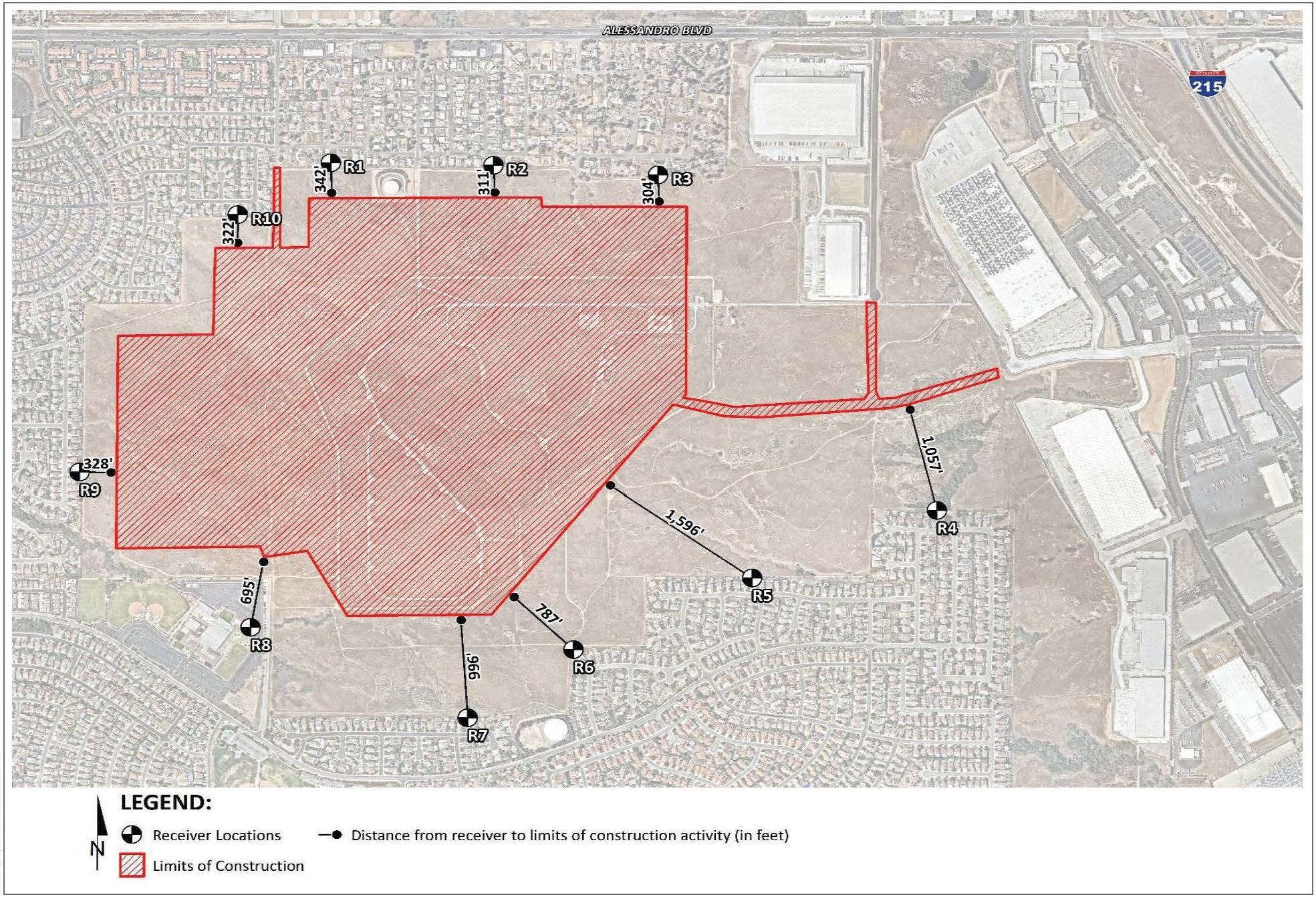
FIGURE 4.11-6

Noise Sensitive Receiver Locations

West Campus Upper Plateau Project

INTENTIONALLY LEFT BLANK

EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE ACTIVITY



SOURCE: Urban Crossroads, 2022

FIGURE 4.11-7

Construction Noise Source Boundary and Receiver Locations

West Campus Upper Plateau Project

INTENTIONALLY LEFT BLANK

Land Use Category	CNEL (dB) 50–55	55–60	60–65	65–70	70–75
Residential *					
single-family, nursing homes, mobile homes	++	o	–	– –	– –
multi-family, apartments, condominiums	++	+	o	– –	– –
Public					
schools, libraries, hospitals	+	o	–	– –	– –
churches, auditoriums, concert halls	+	o	o	–	– –
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	– –	– –

Land Use Acceptability		Interpretation/Comments
++	*Clearly Acceptable*	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	*Normally Acceptable*	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	*Marginally Acceptable*	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	*Normally Unacceptable*	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
– –	*Clearly Unacceptable*	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

* Subtract 5 dB for low-activity outlying airports (Chiriaco Summit and Desert Center)

Source: County of Riverside 2014, Table 2B

FIGURE 4.11-8

Riverside County ALUCP Supporting Compatibility Criteria: Noise

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

SOURCE: Urban Crossroads, 2022

FIGURE 4.11-9

Operational Noise Source Locations

West Campus Upper Plateau Project

INTENTIONALLY LEFT BLANK

4.12 Population and Housing

This section analyzes the potential impacts of the proposed West Campus Upper Plateau Project (Project) to the population and housing conditions of the site and its surroundings.

In addition to other documents, the following references were used in the preparation of this section of the EIR:

- March Joint Powers Authority (JPA) General Plan (March JPA 1999)
- Southern California Association of Local Governments (SCAG) Local Profiles Report 2019 (SCAG 2019a, 2019b)
- 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (SCAG 2020a)

As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.12.1 Existing Conditions

The following provides an overview of existing conditions related to population and housing in Southern California and in the unincorporated area of Riverside County (County) where the Project is located.

Regional

SCAG is the nation's largest metropolitan planning organization, representing 6 counties, 191 cities, and approximately 19 million residents. Table 4.12-1 indicates the SCAG growth forecasts for the region in terms of population, housing, and employment. The SCAG region is the second most populous metropolitan region in the nation. According to data from the six counties in the SCAG region, there were 6 million households and 8.3 million jobs in the region in 2016 (SCAG 2020a).

After the loss of approximately 700,000 jobs between 2007 and 2010, the SCAG region experienced tremendous job growth between 2010 and 2019, reaching nearly 8.7 million jobs and cresting the previous high of 8.1 million reached in 2007. The population to employment (P-E) ratio is used to measure the balance between population and employment in the region and by county. The P-E ratio is high during a recession and low during a better business cycle. The SCAG region experienced a P-E ratio of 2.45 in 2010, while it decreased to 2.2 in 2018.

Table 4.12-1. SCAG and Riverside County Population, Households, and Employment Forecasts

	2016	2020	2030	2045	Net Change (2016-2020)	Percent Change (%)	Projections (2020-2030)	Percent Change (%)	Projections (2020-2045)	Percent Change (%)
SCAG Region										
Population	18,832,000	19,518,000	20,821,000	22,504,000	686,000	3.64%	1,303,000	6.68%	2,986,000	15.3%
Households	6,012,000	6,333,000	6,903,000	7,633,000	321,000	5.34%	570,000	9%	1,300,000	20.5%
Employment	8,389,000	8,695,000	9,304,000	10,049,000	306,000	3.65%	609,000	7%	1,354,000	15.6%
Riverside County										
Population	2,364,000	2,493,000	2,853,000	3,252,000	129,000	5.46%	360,000	14.44%	759,000	30.5%
Households	716,000	785,000	930,000	1,086,000	69,000	9.64%	145,000	18.47%	301,000	38.3%
Employment	743,000	823,000	961,000	1,103,000	80,000	10.7%	138,000	16.77%	280,000	34.0%

Source: SCAG 2020b, Table 13.

Riverside County

Population

As shown in Table 4.12-1, the 2020 population in Riverside County was approximately 2,493,000, which has increased by approximately 129,000 people over the past 4 years. This increase represents a population growth rate of 5.46%, which is higher than the SCAG region growth rate of 3.64% over the same time frame. In 2018, unincorporated areas of Riverside County (such as the Project site) had a total population of 385,953 (SCAG 2019b).

Housing

As shown in Table 4.12-1, a total of 785,000 households were estimated for Riverside County in 2020. The average household size in the County is 3.3 persons per household, which is slightly greater than the SCAG regional average household size of 3.1 (SCAG 2019a). As of 2018, there were 138,782 households estimated within unincorporated Riverside County (SCAG 2019b).

Employment

As shown in Table 4.12-1, a total of 823,000 jobs were estimated in the Riverside County in 2020. A total of 46.9% of Riverside County residents commute to work within the County's boundaries. Others commute outside of Riverside County to Los Angeles County (13.7%), San Bernardino County (13.9%), Orange County (12.7%), San Diego County (7%), and other destinations (5.5%) (SCAG 2019a). Additionally, the County has the highest P-E ratio in the SCAG region at 3.7 in 2010 and 3.1 in 2015. In 2017, a total of 78,237 jobs were located in unincorporated areas of Riverside County. A total of 48.6% of residents within unincorporated Riverside County work and live in the County, while 51.4% commute outside of the County (SCAG 2019b). According to the U.S. Census Bureau, 5.8% of Riverside County's working age civilian population (16 years and over) were unemployed in 2019 compared to 5.9% in San Bernardino County, 5.0% in Los Angeles County, 4.1% in Orange County, and 5.6% in San Diego County (U.S. Census 2019).[1]

Jobs/Housing Balance

A jobs/housing balance is a ratio that indicates the number of available jobs in a jurisdiction compared to the number of available housing units. The ratio is one potential indicator of a community's ability to reduce commuter traffic and overall vehicle miles traveled (VMT) by maintaining a balance between employment and housing in close proximity (e.g., within the jurisdiction's municipal boundaries).

A general measure of the balance of a community's employment opportunities with the needs of its residents is through a "jobs–housing balance" test. A balanced community would have a match between employment and housing opportunities so that most of the residents could also work in the community. Moreover, SCAG defines a balanced community as an area extending about 14 miles around an employment center with a ratio of 1.0 to 1.29 jobs per household (SCAG 2001). Connect SoCal provides the data required to calculate the local jobs-housing balance. Due to the proximity of the joint-use airport, March JPA has extremely limited residential land uses (see the discussion under Section 4.12.2 regarding March JPA's General Plan), therefore a comparison of Riverside County as a whole was conducted. As shown in Tables 4.12-1, SCAG projected 785,000 households and 823,000 jobs were in Riverside

[1] Given the fact that unemployment rates during the COVID-19 pandemic may be skewed when compared to previous years, the 2019 rates were also evaluated.

County in 2020. Thus, the County maintained a 1.05:1 jobs-to-housing ratio,[2] which according to SCAG translates to a balanced community. Assuming a 2030 housing stock of 930,000 and a 2030 employment of 961,000, the County would represent a slightly jobs-rich community with a 1.03:1 jobs-to-housing ratio[3] (SCAG 2020b). However, assuming a 2045 housing stock of 1,086,000 and a 2045 employment of 1,103,000, the County would be balanced with a 1.02:1 jobs-to-housing ratio[4] (SCAG 2020b).

Furthermore, in addition to SCAG's estimates (detailed in Table 4.12-1), jurisdictions within the SCAG region are planning for increased housing growth within SCAG's 6th Cycle between the years 2021 and 2029. Although March JPA extremely limits residential land uses, Section 4.12.2, below, states March JPA's four member jurisdictions' (County of Riverside, City of Riverside, City of Perris, and City of Moreno Valley) housing elements are incorporated by reference and recognized by the State of California as in compliance with Housing Element Law. Thus, as shown in Table 4.12-2, SCAG's 6th Cycle Final RHNA Allocation, planned housing growth for each of March JPA's member jurisdictions are as follows: unincorporated Riverside County (40,647 units), City of Riverside (18,458 units), City of Perris (7,805 units), and City of Moreno Valley (13,627 units). Therefore, a total of 80,537 housing units[5] are planned for 2029.

4.12.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal programs, policies, or regulations related to population and housing that are applicable to the Project.

State

Department of Housing and Community Development

State law requires that jurisdictions provide their fair share of regional housing needs. The California Department of Housing and Community Development (HCD) is mandated to determine the statewide housing need. In cooperation with the HCD, local governments and councils of governments are charged with making a determination of the existing and projected housing need as a share of the statewide housing need of their jurisdiction. The housing need is based on four household income categories: very low (households making less than 50% of area median family income), low (50% to 80% of area median family income), moderate (80% to 120% of area median family income), and above moderate (more than 120% of area median family income).

The "fair share" allocation process begins with the California Department of Finance's projection of statewide housing demand for an 8-year period, which is then apportioned by the HCD among each of the state's designated regions. The regions are represented by an agency typically termed a council of government. A local jurisdiction's fair share of regional housing need is the number of additional dwelling units that will need to be constructed during a given 8-year planning period. Once a local government has received its final RHNA, it must revise its Housing Element to show how it plans to accommodate its portion of the region's housing need.

2 823,000 divided by 785,000 = 1.048 (1.05)
3 961,000 divided by 930,000 = 1.03
4 1,103,000 divided by 1,086,000 = 1.015 (1.02)
5 40,647 + 18,458 + 7,805 + 13,627 = 80,537

Regional

Southern California Association of Governments

SCAG is the Metropolitan Planning Organization for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties. As the designated Metropolitan Planning Organization, SCAG is mandated to research and develop plans for transportation, growth management, hazardous waste management, and air quality. SCAG is responsible for planning efforts that result in the RTP and the Federal Transportation Improvement Program; SCAG also develops the SCS to reduce greenhouse gas emissions as required by the Sustainable Communities and Climate Protection Act (Senate Bill 375). To facilitate regional planning efforts, SCAG's planning area is further organized into 14 subregions. The March JPA is located in the Western Riverside Council of Governments' subregion.

SCAG is responsible for developing demographic projections; developing land use, housing, employment, transportation programs and strategies for South Coast Air Quality Management District; ensuring that the RTP and the Federal Transportation Improvement Program conform to the State Implementation Plans for transportation-related criteria pollutants, per the Clean Air Act; preparing the Regional Housing Needs Assessment, including planning for future population, housing, and employment growth throughout the SCAG region; and preparing the Southern California Hazardous Waste Management Plan. SCAG is the responsible agency for developing and adopting regional housing, population, and employment growth forecasts within the SCAG region. SCAG's demographic data is developed to enable the proper planning of infrastructure and facilities to adequately meet the needs of the anticipated growth. Growth forecasts contained in the RTP/SCS for Riverside County (including unincorporated areas) are used in this section to analyze population, housing, and employment forecasts.

Regional Transportation Plan/Sustainable Communities Strategy

The RTP is a long-range transportation plan that is developed and updated by SCAG every 4 years to guide transportation investments throughout the region. The SCS is a required element of the RTP that integrates land use and transportation strategies to achieve California Air Resources Board emissions reduction targets pursuant to Senate Bill 375. On September 3, 2020, the SCAG Regional Council adopted the 2020-2045 RTP/SCS (Connect SoCal). The RTP/SCS includes goals to increase mobility and enhance sustainability for the region's residents and visitors. The RTP/SCS encompasses three principles to improve the region's future: mobility, economy, and sustainability. The RTP/SCS provides a regional investment framework to address the region's transportation and related challenges, while enhancing the existing transportation system and integrating land use into transportation planning (SCAG 2020a).

To address the mobility challenge of the region's continuing roadway congestion, the RTP/SCS proposes transportation investments in transit; passenger and high-speed rail; active transportation; transportation demand management; transportation systems management; highways; arterials; goods movement; aviation and airport ground access; and operations and maintenance projects. The RTP/SCS recommends local jurisdictions accommodate future growth within existing urbanized areas, particularly near existing transit, to reduce VMT, congestion, and greenhouse gas emissions. The RTP/SCS approach to sustainably manage growth and transportation demand would reduce the distance and barriers between new housing, jobs, and services and would reduce vehicle travel and greenhouse gas emissions. As part of its RTP/SCS document, SCAG develops population and housing forecasts for the SCAG region and for the jurisdictions that make up the SCAG region.

Regional Housing Needs Allocation (RHNA)

The RHNA is mandated by the State Housing Law as part of a periodic process of updating local housing elements in city and county general plans. The RHNA is produced by SCAG and contains a forecast of housing needs within each jurisdiction within the SCAG region for eight-year periods. The RHNA provides an allocation of the existing and future housing needs by jurisdiction that represents the jurisdiction's fair share allocation of the projected regional population growth. The future housing needs allocations are broken down by income level so that each jurisdiction is responsible for the development of affordable housing units to meet future housing needs. SCAG's 6th Cycle RHNA allocation to local jurisdictions based on the Regional Council-approved Final RHNA Methodology, shown in Table 4.12-2. On March 22, 2021, HCD approved SCAG's adopted 2021-2029 RHNA Plan.

Table 4.12-2. SCAG's 6th Cycle Final RHNA Allocation

Total	Very-Low Income	Low Income	Moderate Income	Above Moderate Income
SCAG Region				
1,341,827	351,796	206,807	223,957	559,267
Riverside County (total)				
167,351	41,995	26,473	29,167	69,716
Riverside County (unincorporated)				
40,647	10,371	6,627	7,347	16,302
City of Riverside				
18,458	4,861	3,064	3,139	7,394
City of Perris				
7,805	2,030	1,127	1,274	3,374
City of Moreno Valley				
13,627	3,779	2,051	2,165	5,632

Source: SCAG 2020c

Local

March Joint Powers Authority General Plan

The Housing Element of the March JPA General Plan incorporates the four housing elements of each member jurisdiction of the March JPA, by reference; each which are certified by the Department of Housing and Community Development. March JPA is the redevelopment agency under the Department of Defense base reuse process. A base master reuse plan was prepared for the March Air Force Base (AFB), which realigned to March Air Reserve Base (ARB) April 1, 1996. The master base reuse plan for March recognized the existing Green Acres housing area and an expansion area for the Air Force Village West senior community (aka Westmont Village), but did not create other housing opportunities within the planning area due to incompatible land uses with the airfield, the need to focus on the reestablishment of the numerous jobs lost due to base realignment, and the housing rich environment of Western Riverside County. Since adoption of March JPA's General Plan in 1999, a housing facility for homeless veterans has been constructed within the March JPA's northeast corner, generally near Heacock Street and Meyer Drive, but all other development has been employment generating. Therefore, incorporation of the four member jurisdictions' (County of Riverside, City of Riverside, City of Perris, and City of Moreno Valley) housing elements by reference is consistent with the goals and policies of the Joint Powers Commission (JPC) and the base reuse

process. The State of California's HCD, in recognition of the unique governance and responsibilities of March JPA and the adequacy of housing sites within the member jurisdictions, has resolved that incorporation by reference of the four housing elements complies with the guidelines and requirements of a Housing Element.

4.12.3 Thresholds of Significance

The significance criteria used to evaluate the Project's impacts related to population and housing are based on the following 2022 March JPA California Environmental Quality Act (CEQA) Guidelines. A project would result in significant impacts if it would:

a) 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)?
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Through the analysis provided in the Initial Study prepared for the Project (see Appendix A), it was determined that the Project would not displace substantial numbers of existing people or housing, and no impact would occur. Accordingly, this issue is not further analyzed in this EIR. For details regarding this threshold, please refer to Chapter 5, Other CEQA Considerations, and the Initial Study included as Appendix A. For the purposes of this analysis, a significant impact would occur if the Project would:

POP-1: 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)?

4.12.4 Impacts Analysis

Threshold POP-1. 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)?

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan.

The Project would be constructed in two phases. Phase 1 would include all rough grading, including removal of 14 of the bunkers and construction of associated infrastructure for the proposed Specific Plan Area. Phase 1 construction is expected to last 9 months, commencing in mid-2023 and ending in early 2024. Phase 2 would include site preparation, construction of the new park, and construction of the buildings throughout the Project site. Phase 2 would last approximately 3.5 years, commencing in early 2024 and ending in late 2027. The Project site

would be fully occupied and operational in 2028. Construction activities at the Project site would lead to the temporary need for construction workers, which may come from surrounding communities or elsewhere within the SCAG region. The proposed Project involves fairly common construction requirements that would not require a highly specialized labor force to permanently relocate from other regions. The different construction activities require specific skill sets for a much shorter duration than the overall construction schedule. Because construction workers would not be needed continuously and only for varying portions of the Project phases, it is reasonable to assume that workers/crews would work at the Project site on a temporary basis only, and thus, are not likely to relocate their households as a consequence of the construction job opportunities presented by the Project. Because the demand for construction workers would be short-term, and because the Project site within an urban metropolitan region with a high diversity of skilled labor, a permanent need for new workers to relocate in order to accommodate the proposed Project's temporary construction workforce is not anticipated. Any changes in the local or regional population, housing, or employment due to short-term construction activities would be less than significant.

Under the buildout scenario, it is anticipated that the Project would employ approximately 2,600 full-time employees, as shown in Table 4.15-3 in Section 4.15, Transportation. As shown, Table 4.15-3 presents the estimated number of Specific Plan Area employees by land use type, which estimates approximately 2,000 industrial employees, 340 service employees, and 255 retail employees. Thus, a total of 2,595 (or approximately 2,600 employees) is assumed under the Project's buildout. Based on the County's unemployment rate, this EIR assumes that the Project's employees will be primarily existing residents of Riverside County.

Employment Projections

The population has increased throughout the southern California region (as shown in Table 4.12-1), and in particular, Riverside County has shown the addition of 129,000 new residents since 2016 (see Table 4.12-1). In the same timeframe, the County added 80,000 new jobs (see Table 4.12-1). The Project is anticipated to generate approximately 2,600 full-time jobs, which could be filled by existing residents of the County. With the occupancy of the proposed Project, this would account for a nominal percentage of SCAG's 2030 projections (1.88% of 138,000 jobs) and 2045 projections (0.93% of 280,000 jobs) for Riverside County[6] and a nominal percentage (0.32%) of the County's estimated 2019 labor force.[7] Furthermore, assuming the Project's future employees would be filled by existing residents of the County, the County's unemployment rate would reduce from 5.8% (111,788 unemployed)[8] to 5.7%[9] (109,188 unemployed)[10] (U.S. Census 2019).

As such, the anticipated number of jobs generated by the Project would be a nominal addition to the County's existing and projected labor force. Thus, the employment growth that can be attributed to the Project is consistent with SCAG's overall growth projections and would not result in a substantial increase of unplanned population growth.

Housing Projections

The March JPA planning area supports only very limited residential land uses due to incompatibility with the existing joint-use airfield east of the Project site. It is assumed that new employees would commute from the cities and communities surrounding the Project site. The California Housing Element Law requires that each jurisdiction develop local housing programs designed to meet its fair share of existing and future housing needs for all income

6 2600 ÷ 138000 = 0.01884 (1.88%)
7 2600 ÷ 823000 = 0.00315 x 100 = 0.315%
8 5.8% x 1,927,382 (Riverside County population 16 years and over) = 111,788 people/jobs
9 109,188 ÷ 1,927,382 = 0.0566 (5.7%)
10 111,788 – 2,600 = 109,188

groups. This effort is coordinated by each jurisdiction's Council of Governments (March JPA and its member jurisdictions are a part of the Western Riverside Council of Governments) to prepare state-mandated Housing Elements. The fair share allocation (also known as RHNA) seeks to ensure that each jurisdiction plans for the housing needs of, not only its resident population, but for all households that might reasonably be expected to reside within the jurisdiction.

Because the March JPA General Plan supports only very limited residential land uses, housing needs within the four member jurisdictions (County of Riverside, City of Riverside, City of Perris, and City of Moreno Valley) are evaluated, below. Table 4.12-2 details the RHNA numbers for each of the four member jurisdictions. As detailed above, unincorporated Riverside County was allocated a total RHNA of 40,647 dwelling units, the City of Riverside has a total allocation of 18,458 dwelling units, the City of Perris has a total allocation of 7,805 dwelling units, and the City of Moreno Valley has a total allocation of 13,627 dwelling units (SCAG 2020c). Thus, March JPA's member agencies are required to collectively plan for 80,537 additional dwelling units[11] within the 2021-2029 planning period. Each jurisdiction needs to plan for the total allocation of housing units identified, consisting of a variety of housing types to accommodate very low, low, moderate, and above moderate-income households to keep pace with housing demand.

According to the SCAG RTP/SCS, the estimated 2016 housing stock for unincorporated Riverside County was 113,600 units. Additionally, SCAG estimated approximately 94,500 housing units exist within the City of Riverside, 17,200 units within the City of Perris, and 52,700 units within the City of Moreno Valley (SCAG 2020b). Given with the assumption that the Project's anticipated employment growth would be primarily filled by existing residents of Riverside County, the potential need to provide housing for approximately 2,600 employees is supported by existing conditions within unincorporated Riverside County or within surrounding cities within the County. Therefore, the Project would not result unplanned population growth to support the Project's anticipated employment generation.

Jobs/Housing Balance

As previously described under Section 4.12.1, Existing Conditions, Riverside County was considered to be a balanced community with a 1.05:1 jobs-to-housing ratio[12] in 2020. However, SCAG projects the County would represent a slightly jobs-rich community with a 1.03:1 jobs-to-housing ratio by 2030 (SCAG 2020b).By 2045, SCAG projects the County would become balanced with a 1.02:1 jobs-to-housing ratio (SCAG 2020b). The Project would generate approximately 2,600 employees and as previously mentioned, the additional employment opportunities would be supported by the existing housing stock surrounding the Project site. In addition, the Project's employees would be primarily filled by existing residents of the County, resulting in a reduction of the County's unemployment rate from 5.8% (111,788 unemployed in 2019) to 5.7% (U.S. Census 2019). As such, the Project's future employees would not need to relocate, resulting in unplanned population growth. While in the nearer term (i.e., 2030), the Project would contribute to a more jobs in the community, during the planning horizon year of 2045, the jobs-to-housing ratio would decrease slightly to 1.02:1. The Project would contribute nominal employment growth to existing and future projected conditions of Riverside County. Thus, Riverside County would maintain balanced jobs-housing ratio between 1.0 to 1.29 jobs per household with the implementation of the Project.

In summary, while the Project's Campus Development could be growth inducing (in that approximately 2,600 employees would result from the Project), its growth is not considered substantial or significant population growth. As demonstrated above, the Project's anticipated employment growth would be primarily supported by existing

11 40,647 + 18,458 + 7,805 + 13,627 = 80,537. See Table 4.12-2
12 823,000 divided by 785,000 = 1.048 (1.05)

residents located within the surrounding areas of the Project site. Therefore, impacts would be **less than significant**, and no mitigation would be required.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The provision of this additional recreational facility would not be considered growth inducing (new employees or residents) thereby resulting in substantial unplanned population growth. Therefore, impacts would be **less than significant**, and no mitigation would be required.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank. The provision of infrastructure improvements would not be considered growth inducing as it would not result in the generation of new employees and residents. Given that the infrastructure improvements would not result in new employment opportunities or population growth within the region, **no impact** would occur.

Conservation Easement

The developer and the March JPA propose to establish a 445.43-acre Conservation Easement. No new development would occur within this area, and the Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to population and housing.

4.12.5 Mitigation Measures

The Project would result in **less than significant impacts** relative to population and housing; as such, no mitigation measures are required.

4.12.6 Level of Significance After Mitigation

The Project would result in a **less than significant impact** to population and housing.

4.12.7 Cumulative Effects

Cumulative impacts to population and housing would result from a combination of projects that induce population growth. Individually, the Project would result in employment growth in Riverside County; however, as previously discussed, this growth projection is minimal and consistent with SCAG's growth projections for the County. As shown in Table 4.12-1, SCAG projects 138,000 new jobs (17% growth) between 2020 and 2030. The proposed Project would account for a nominal percentage (1.88%) of SCAG's 2030 projections. Additionally, in Table 4.12-1, SCAG projects 280,000 new jobs (34% growth) between 2020 and 2045. As such, the proposed Project would account for a nominal percentage (0.93%) of SCAG's 2045 projections. Moreover, the Project would contribute to reducing Riverside County's unemployed population of 5.8% (111,788 County residents).

As discussed above, the Project would not result in the construction of new housing. Instead, the Project's anticipated employees would primarily come from the existing population within the County. SCAG estimated approximately 94,500 housing units exist within the City of Riverside, 17,200 units within the City of Perris, and 52,700 units within the City of Moreno Valley (SCAG 2020b). Given the Project's assumption that jobs would primarily be filled by existing residents, similar assumptions can be made about future related projects such that future employment could come from the existing population within the County (e.g., the cities surrounding March JPA). Additionally, as shown in Table 4.12-2, future planned housing production is anticipated through RHNA goals. As detailed above, unincorporated Riverside County was allocated a total RHNA of 40,647 dwelling units, the City of Riverside has a total allocation of 18,458 dwelling units, the City of Perris has a total allocation of 7,805 dwelling units, and the City of Moreno Valley has a total allocation of 13,627 dwelling units (SCAG 2020c). Each jurisdiction needs to plan for the total allocation of housing units identified, consisting of a variety of housing types to accommodate very low, low, moderate, and above moderate-income households to keep pace with housing demand over an 8-year period between 2021 and 2029. Therefore, the Project would not impact housing projections and, thus, would not result in a cumulatively considerable impact associated with unplanned population growth.

The region is expected to see continued population growth, and the Project would not result in a substantial increase beyond SCAG's overall growth projections. SCAG projects the County would represent a slightly jobs-rich county with a 1.03:1 jobs-to-housing ratio in 2030 (SCAG 2020b). Additionally, SCAG projects the County would represent a slightly above balanced county with a 1.02:1 jobs-to-housing ratio in 2045 (SCAG 2020b). The cumulative growth induced by the Project combined with other approved and proposed projects is unlikely to result in substantial employment growth beyond that which is already planned for in the County and region. In combination with the Project, impacts to population growth or housing availability **would not be cumulatively considerable.**

4.12.8 References Cited

March JPA (Joint Powers Authority). 1999. *General Plan of the March Joint Powers Authority*. https://www.marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

SCAG (Southern California Association of Governments). 2001. *The New Economy and Jobs/Housing Balance in Southern California*. April 2001. Accessed April 2022. https://scag.ca.gov/sites/main/files/file-attachments/neweconomyjobshousingbalance.pdf?1604179652.

SCAG. 2019a. *Profile of Riverside County: Local Profiles Report 2019*. May 2019. Accessed August 2021. https://scag.ca.gov/sites/main/files/file-attachments/riversidecountylp.pdf?1606013116.

SCAG. 2019b. *Profile of Unincorporated Riverside County: Local Profiles Report 2019*. May 2019. Accessed August 2021. https://scag.ca.gov/sites/main/files/file-attachments/unincareariversidecounty_0.pdf?1606013120.

SCAG. 2020a. 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments (also known as "Connect SoCal"). Adopted on September 3, 2020. Accessed August 18, 2021. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176.

SCAG. 2020b. Connect SoCal: Current Context Demographics and Growth Forecast Technical Report. Adopted September 3, 2020. Accessed November 2021. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579.

SCAG. 2020c. SCAG 6th Cycle Final RHNA Allocation Plan. Approved by HCD on March 22, 2021 and modified on July 1, 2021. https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-final-allocation-plan.pdf?1625161899.

U.S. Census (United States Census Bureau). 2019. American Community Survey, S2301: Employment Status. 2019: ACS 1-Year Estimates Subject Tables. Riverside County, San Bernardino County, Los Angeles County, Orange County, and San Diego County, California. Accessed January 2022. https://data.census.gov/cedsci/table?q=Riverside%20County,%20California&t=Employment&g=0500000US06037,06059,06071,06073&tid=ACSDP1Y2019.DP03&moe=false&tp=true

4.13 Public Services

This section of the Environmental Impact Report (EIR) describes the potential effect of the proposed West Campus Upper Plateau Project (Project) site on existing public services, identifies associated regulatory requirements, and evaluates potential impacts.

In addition to other documents, the following references were used in the preparation of this section of the EIR:

- March Joint Powers Authority (JPA) General Plan (March JPA 1999)
- Draft/Final Environmental Impact Report for the Meridian West Campus-Lower Plateau Project (March JPA 2017)
- Fire Protection Plan – West Campus Upper Plateau, prepared by Dudek (Appendix Q)

As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.13.1 Existing Conditions

Police Protection

The Project site is in unincorporated Riverside County (County) and law enforcement services fall under the Riverside County Sheriff's Department (Sheriff's Department). The Sheriff's Department provides for the protection of life and property, enforces applicable laws, orders, and regulations, and provides traffic control, including restricting and rerouting of traffic as needed. It also provides, in coordination with the fire department and other volunteer organizations, for the evacuation and relocation of persons. The closest sheriff station is the Moreno Valley patrol station (22850 Calle San Juan De Los Lagos), which is located approximately 1.47 miles northeast of the Project site. Overall response times from the Moreno Valley substation are approximately 5 minutes for priority one emergencies and 10 minutes for priority two emergencies. Riverside County Sheriff's Department has established the following criteria for its staffing requirements in unincorporated areas of the County (March JPA 2017).

- One sworn officer per 1,000 population
- One supervisor and one support staff employee per seven officers

- One patrol vehicle per three sworn officers

The March JPA receives a base level of service from the County Sheriff, which covers both emergency and non-emergency response. Operations and maintenance for base level sheriff services are financed through the Law Enforcement sales tax and property taxes. In addition to the base level of service from the County Sheriff's Department, March JPA contracts with the Sheriff's Department for 40 hours of patrol service per week and truck route enforcement paid through an existing truck route mitigation fund. Sheriff's department capital facilities are financed through the March JPA Criminal Justice development impact fees (DIFs) (March JPA 2015).

Fire Protection

The County of Riverside contracts with the California Department of Forestry and Fire Protection (CAL FIRE) for fire protection. Under CAL FIRE "Riverside Operational Unit" management, the Riverside County Fire Department (RCFD) operates 96 fire stations in 17 battalions with approximately 230 pieces of equipment. Fifty-one of these stations, as well as three stations operated directly by CAL FIRE, are located in the unincorporated portion of Riverside County. Within its service area, RCFD provides fire suppression, emergency medical, rescue and fire prevention services and is equipped to fight both urban and wildland emergency conditions. RCFD operating costs are paid through the structural fire tax that is levied on properties within Riverside County. March JPA collects development impact fees for a future County Fire Station planned to be located at the northeast corner of Meridian Parkway and Opportunity Way. The RCFD provides fire protection services to the March JPA Planning Area, which includes the Project site. In addition, additional fire stations serve the Project site's vicinity, including those under the jurisdiction of the City of Riverside (RFD), as detailed above in Table 4.13-1.

Table 4.13-1. Nearby Fire Stations and Locations

Station	Location	Approximate Distance and Direction from Project Site
Station 6 – Towngate (RCFD)	22250 Eucalyptus Avenue, Moreno Valley, California 92553	1.45 miles northeast
Station 65 – Kennedy Park (RCFD)	15111 Indian Street, Moreno Valley, California 92551	3.25 miles east
Station 2 – Sunnymead (RCFD)	24935 Hemlock, Moreno Valley, California 92557	4.05 miles northeast
Station 48 – Sunnymead Ranch (RCFD)	10511 Village Road, Moreno Valley, California 92557	4.25 miles northeast
Station 91 – College Park (RCFD)	16110 Lasselle Street, Moreno Valley, California 92553	4.75 miles southeast
Station 59 – Mead Valley (RCFD)	21510 Pinewood Street, Perris, California 92570	5 miles south
Station 99 – Morrison Park (RCFD)	13400 Morrison Street, Moreno Valley, California 92555	5.35 miles east
Station 58 – Moreno Beach (RCFD)	28040 Eucalyptus Avenue, Moreno Valley, California 92555	7 miles northeast
Station 1 – Perris (RCFD)	210 West San Jacinto Avenue, Perris, California 92570	8.35 miles southeast

Table 4.13-1. Nearby Fire Stations and Locations

Station	Location	Approximate Distance and Direction from Project Site
Station 11 – Orangecrest (RFD)	19595 Orange Terrace Parkway, Riverside California 92508	0.5 miles southwest
Station 13 – Sycamore Canyon (RFD)	6490 Sycamore Canyon Boulevard, Riverside, California 92507	1.25 miles north

Source: March JPA 2015.

As shown in Table 4.13-1, Station 6 (Towngate) is the closest RCFD facility to the Project site, located at 22250 Eucalyptus Avenue, Moreno Valley, California 92553 (approximately 1.45 miles northeast). However, the closest fire station to the Project site is Station 11 (Orangecrest Fire Station), located at 19595 Orange Terrace Parkway and approximately 0.5 miles southwest. The City of Riverside Fire Department operates the Orangecrest Fire Station (Station 11) and Sycamore Canyon Fire Station (Station 13). Both stations are identified as designated fire stations that would provide services necessary to March JPA through an existing mutual aid agreement (see Section 4.13.2, below). Although this agreement does not specify acceptable response times or service ratios, Riverside County's General Plan defines acceptable response times as within 5 minutes for urban areas, 10 minutes for suburban and rural community areas, and 20 minutes for rural outlying areas (County of Riverside 2003).

Schools

March JPA is served by Val Verde Unified School District, Moreno Valley Unified School District, and Riverside Unified School District (March JPA General Plan 1999). The closest school to the Project site is Benjamin Franklin Elementary School (19661 Orange Terrace Parkway), located approximately 0.5 miles southwest and Amelia Earhart Middle School (20202 Aptos Street), located 0.5 miles south of the Project site. Both schools are located within the Riverside Unified School District. However, according to March JPA School Districts map, the Project site is within the boundaries of the Moreno Valley Unified School District (March JPA 2022a).

Libraries

March JPA is served by the Riverside County Library System. The County Library System supports 35 libraries branches and 2 book mobiles through property tax assessment within unincorporated County areas and 15 participating cities. Service standards in the County branch libraries are 2.5 volumes per capita and 0.5 square feet per capita (County of Riverside 2003).

Parks

The March JPA jurisdictional boundaries includes the General Old Golf Course (golf course), which is located approximately 1.2 miles to the south/southeast of the Project site. The golf course is an 18-hole course open to the public, located on 314 acres owned by the United States Department of Veteran Affairs. As described in the Resource Management Element of the March JPA General Plan, a system of bikeways, trails, and/or linkage shall connect to adjacent trail systems within County of Riverside and City of Riverside jurisdictions. Additionally, trails utilize rights-of-way as provided by roadways, parkways, utility easements, and drainage channels. Under existing conditions, the March JPA Planning area includes the March Air Field Museum and the now-constructed 3-acre Veterans park and the adjacent 58.4-acre open space/trail system in the South Campus Specific Plan area. Additionally, Orange Terrace Community Park, Thundersky Park, and Sycamore Canyon Wilderness Park are located

within the City of Riverside approximately 700 feet to the south, 0.45 miles south, and just north of the Project site across from Alessandro Boulevard, respectively.

4.13.2 Relevant Plans, Policies, and Ordinances

Federal

There are no applicable federal plans, policies, or ordinances for public services.

State

California Code of Regulations Title 24 California Building Standards Code

California Building Code

Part 2 of Title 24 of the California Code of Regulations, the California Building Code (CBC), contains minimum standards for construction and the built environment intended to safeguard public health, safety, and general welfare. The CBC incorporates by adoption the International Building Code but has been modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local city and county building officials for compliance with the CBC.

Typical requirements of the CBC include provisions for building materials, accessibility and means of ingress/egress, energy efficiency, fire protection, and lifesaving systems. The Project would be required to comply with the standards set forth in the CBC in order to maintain a safe commercial environment and one that does not hinder the ability of local public services, such as fire and police, to serve the Project site and surrounding area.

California Fire Code

Part 9 of Title 24, the California Fire Code (CFC), contains fire safety-related building standards. The CFC incorporates by adoption the International Fire Code with necessary California amendments. The CFC establishes minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations. The CFC includes general provisions for fire protection features and systems, ingress/egress, and building materials, as well as provisions specific to certain uses and building types.

The CFC and Office of the State Fire Marshal provide regulations and guidance for local agencies in the development and enforcement of fire safety standards. The CFC is updated and published every 3 years by the California Building Standards Commission. The 2019 CFC took effect on January 1, 2020.

State Responsibility Area Fire Safe Regulations

The basic wildland fire protection standards of the California Board of Forestry are found in CAL FIRE's Fire Safe Regulations. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in State Responsibility Areas. Chapter 7 of Division 1.5 of Title 14, Fire Protection, of the California Code of Regulations regulates that the future design and construction of

structures, subdivisions, and developments in a State Responsibility Area shall provide basic emergency access and perimeter wildfire protection measures.

California Health and Safety Code

State fire regulations are set forth in Section 13100 et seq. of the California Health and Safety Code, including regulations for building standards (also set forth in the CBC), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8, Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Equipment, the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials; fire hose size requirements; restrictions on the use of compressed air; requirements for access roads; and guidelines for testing, maintaining, and using all firefighting and emergency medical equipment.

Mutual Aid Agreements

The California Disaster and Civil Defense Master Mutual Aid Agreement, as provided by the California Emergency Services Act, provides statewide mutual aid between and among local jurisdictions and the state. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever local resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities but can give and receive help whenever needed.

As an unincorporated portion of Riverside County, March JPA receives primary fire protection service from the Riverside County Fire Department/CAL FIRE. Supplemental fire protection service is provided by the City of Riverside and the March Air Reserve Base (ARB) Fire Department, through mutual aid agreements. For example, the City of Riverside Fire Department operates the Orangecrest Fire Station, which would be the nearest service station to the Project site. Existing mutual aid agreements such as the Cooperative Agreement for Automatic Aid (ID No. 8347) between the City and the County would support the Project site.

California Education Code

The facilities and services are subject to the rules and regulations of the California Education Code and governance of the State Board of Education. Traditionally, the state has passed legislation for the funding of local and public schools and provided the majority of monies to fund education in the state. To assist in providing facilities to serve students generated from new development projects, the state passed Assembly Bill 2926 in 1986, allowing school districts to collect impact fees from developers of new residential, commercial, and industrial developments. Development impact fees are also referenced in the 1987 Leroy Greene Lease-Purchase Act, which requires school districts to contribute a matching share of the cost of construction, modernization, or reconstruction of school facilities. Subsequent legislation has modified the fees structure and general guidelines. Section 65996 of the California Government Code designates Section 17620 of the Education Code (the mitigation fees authorized by Senate Bill [SB] 50) and Section 65970 of the Government Code to be the exclusive method for considering and mitigating development impacts on school facilities.

Senate Bill 50 and Proposition 1A

SB 50, the Leroy F. Greene School Facilities Act of 1998, was signed into law on August 27, 1998. It placed a $9.2 billion state bond measure (Proposition 1A), which includes grants for modernization of existing school and construction of new schools, on the ballot for the November 3, 1998, election. Proposition 1A was approved by voters, thereby enabling SB 50 to become fully operative. Under SB 50, a program for funding school facilities largely based on matching funds was created. Its construction grant provides funding on a 50/50 state and local match basis, while its modernization grant provides funding on a 60/40 basis. Districts unable to provide some, or all, of the local match requirement may meet financial hardship provisions and are potentially eligible for additional State funding. In addition, SB 50 allows governing boards of school districts to establish fees to offset costs associated with school facilities made necessary by new construction. Pursuant to California Government Code Section 65995, the payment of these fees by a developer serves to fully mitigate all potential impacts.

Quimby Act

The Quimby Act, California Government Code Section 66477, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fees are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public-school grounds.

Local

March JPA General Plan

Safety/Risk Management Element

The Safety/Risk Management Element of the March JPA General Plan presents a planning area wide approach for preventing the creation of hazards in the planning area and for minimizing the potential for injury, damage and disruption brought by natural and manmade catastrophes and emergencies. The Safety/Risk Management Element establishes safety standards and programs to protect life and property. The Safety/Risk Management Element is consistent with other elements of the General Plan, complementing the goals and policies of related elements.

The following policies from the Safety/risk Management Element pertain to safety and emergency response and may be applicable to the Project (March JPA 1999):

Policy 4.1: Ensure that law enforcement and fire services, such as fire equipment and response time, are adequate and able to respond to a major disaster.

Policy 4.4: Support the mutual aid agreement with March ARB Fire Department.

Policy 8.1: Update emergency plans, contacts, and liaisons with regional, State and Federal emergency response organizations at least every five years.

Policy 8.2: Establish an emergency response organization consisting of representatives from County agencies (Public Social Services, Sheriff, Fire), and local representatives from March JPA, and utilities.

Policy 8.5: Establish traffic control contingency plans for disaster routes.

Policy 8.6: Coordinate with County Sheriff and Fire agencies to identify casualty collection points and sheriff/fire staging areas.

Resources Management Element

The Resource Management Element provides for the conservation, development, and use of natural, historical, and cultural resources. The Resource Management Element also details plans and measures for the preservation of open space designed to promote the management of natural resources, outdoor recreation and public health and safety. This element identifies open space lands to include the golf course, installation restoration program clean-up sites, airfield and aviation related clear zones, riparian and open space habitat areas, and the expansion areas for the Riverside National Cemetery.

Recreational facilities in the March JPA Planning area consist of the golf course, the March Air Field Museum, and the now-constructed 3-acre park and 58.4-acre open space/trail system in the South Campus Specific Plan area.

The goals and policies relevant to recreation and the Project from the Resource Management Element are described below (March JPA 1999):

Water Resources

Policy 1.6: Promote the use of drought tolerant landscaping in development, and encourage the use of reclaimed water for irrigation in parks, golf courses, and industrial uses, as well as for other urban uses, whenever feasible and where legally permitted.

Earth Resource Conservation and Protection

Policy 3.1: Conserve hillsides and rock outcroppings in the planning area through the use of master-planned developments which create a "campus-like" setting, and encourage the creative siting of building areas as a means of retaining natural areas and open -space.

Flora and Fauna Resources

Policy 5.1: Where practical, conserve important plant communities and habitats such as riparian areas, wetlands, significant tree stands, and species by using buffers, creative site planning, revegetation and open space easement/dedications.

Policy 5.2: Encourage the planning of native species of trees and other drought-tolerant vegetation.

Policy 5.5: Where practical, allow development to remove only the minimum natural vegetation and encourage the revegetation of graded areas with native plant species.

Recreational Facilities

Goal 8: Develop and maintain recreational facilities as economically feasible, and that meet the needs of the community for recreational activities, relaxation and social interaction.

Policy 8.1: Provide active and passive park and recreational facilities, based on reasonable service areas within the planning area, to serve the unmet needs of the community and sub-region.

Policy 8.2: Encourage involvement of private investment in the development of recreational facilities, when appropriate, to increase the recreational opportunities of the area.

Policy 8.3: Seek out and pursue all forms of federal, state, local, private foundation and endowment support to assist in the development and programming of park and recreation resources in March JPA Planning Area.

Policy 8.4: Coordinate with the other recreational programs and agencies in providing regional recreational facilities in the area.

Protect and Provide for Open Space Areas

Goal 9: Create a network of open space areas and linkages throughout the Planning Area that serve to preserve natural resources, protect health and safety, contributes to the character of the community, provide active and passive recreational use, as well as visual and physical relief from urban development.

Policy 9.1: Encourage a "link" system of open space land to intermix with development providing both visual buffers and relief, as well as preservation and connectivity of the natural environment.

Policy 9.2: Seek funding sources for the preservation and maintenance of open space in the March JPA Planning Area.

Policy 9.3: Allow recreational uses on designated open space lands.

Policy 9.4: Manage passive recreational open spaces to optimize use while avoiding environmental disruption.

Policy 9.5: Link open space areas and trails with adjacent regional and local open space and trails networks.

Policy 9.6: Establish an open space conservation program that identifies areas of open space retention based upon capital costs, operation and maintenance costs, accessibility, needs, resource preservation, ability to complete or enhance the existing open space linkage system and natural environment.

Policy 9.7: As appropriate, designate washes, channels, utility corridors and transportation rights-of-way as major linkages of the open space network.

Policy 9.8: Enforce the standards of the military and FAA relative to aviation hazard areas to protect the use of the aviation field, and use of property within its vicinity.

4.13.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts related to public services are based on the following 2022 March JPA California Environmental Quality Act (CEQA) Guidelines. A project would result in significant impacts if it would (March JPA 2022b):

PUB-1: 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:

a. Fire protection?
b. Police protection?
c. Schools?
d. Parks?
e. Other public facilities?

4.13.4 Impacts Analysis

Threshold PUB-1. ***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:***

a.) Fire protection?

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The need for new or expanded public services (such as fire protection facilities) is typically associated with a population increase. Through buildout of the Specific Plan, construction workers would be needed to support Project implementation, which could result in demand for fire protection services. However, construction-related impacts would be temporary and once complete, such impacts would no longer occur (see Section 4.12, Population and Housing, of this EIR for additional details). Under the buildout scenario, it is anticipated that the Project would employ approximately 2,600 full-time employees. As discussed in detail in Section 4.12, the additional employment opportunities would be supported by the existing population in the communities surrounding the Project site. Therefore, it is likely that the majority of the future employees are already residents of the nearby communities. Additionally, the Project's anticipated employment generation is consistent with SCAG's growth

projections for the County. Therefore, the Project would not induce substantial unplanned population growth (see Section 4.12 of this EIR for additional details).

The Project would result in an increase in the intensity of land uses compared to existing conditions on the Project site, which could result in increased calls for service to the fire department. In addition, the nearest mapped Fire Hazard Severity Zone (FHSZ) is located near the Specific Plan Area given that the furthest distance flying embers are expected to travel is approximately 2 miles (see Section 4.18, Wildfire, of this Draft EIR for more details). Thus, the Project site could require increased demand for fire protection services in the event of a wildfire; however, development would be introduced on currently vacant and undeveloped land. The Project's anticipated employment-generated and number of calculated emergency calls were evaluated (Appendix Q) for their potential to impact RCFD's and RFD's response capabilities from its nearest existing stations. As projected, the addition of fewer than 181 calls per year, which would be serviced by numerous stations, including Station 6 (Towngate) – RCFD, Station 65 (Kennedy Park) – RCFD, Station 11 (Orangecrest) – RFD, and Station 13 (Sycamore Canyon) – RFD, is determined to be less than a significant impact on fire protection services. No new facilities would be required to serve the Project, and as such, no environmental impacts resulting from the construction of new facilities would occur. As shown in Table 4.13-1, Station 6 (Towngate) is the closest RCFD facility to the Project site, located at 22250 Eucalyptus Avenue, Moreno Valley, California 92553 (approximately 1.45 miles northeast). The closest fire station to the Project site is Station 11 (Orangecrest Fire Station), located at 19595 Orange Terrace Parkway and approximately 0.5 miles southwest. The City of Riverside Fire Department operates the Orangecrest Fire Station (Station 11) and Sycamore Canyon Fire Station (Station 13). Both stations are identified as designated fire stations that would provide services necessary to March JPA through existing mutual aid agreements (such as the Cooperative Agreement for Automatic Aid (ID No. 8347) between the City of Riverside and the County of Riverside approved in November 2018). Although this agreement does not specify acceptable response times or service ratios, Riverside County's General Plan defines acceptable response times as within 5 minutes for urban areas, 10 minutes for suburban and rural community areas, and 20 minutes for rural outlying areas (County of Riverside 2003). In addition, RCFD operating costs are paid through the structural fire tax that is levied on properties within Riverside County. March JPA collects development impact fees for a future County Fire Station planned to be located at the northeast corner of Meridian Parkway and Opportunity Way. Given existing agreements serving March JPA, the Project site would be adequately served by fire protection services through the buildout of the Specific Plan.

Additionally, buildout of the Project would be designed and constructed in accordance with all applicable regulatory requirements for fire protection, which would reduce the potential need for fire protection services serving the Project site during construction and operation. Applicable regulations include, but are not limited to, requirements for adequate fire flows, width of emergency access routes, turning radii, automatic sprinkler systems, fire alarms, and floor-to-sky height limits along emergency access routes. Fire hydrants would be located along fire access roadways and adjacent to each structure, as determined by the RCFD Fire Marshal and current fire code requirements to meet operational needs (Appendix Q). As discussed in Section 4.18, internal waterlines would supply sufficient fire flows and pressure to meet the demands for required fire hydrants and interior fire sprinkler systems for all structures. The Project would be consistent with County Fire Code Section 8.32.050 and California Fire Code Section 903.2 for fire flow and fire hydrant requirements within a HFHSZ, which requires a 2-hour fire flow requirement of 2,500 gallons per minute (gpm). Compliance with these requirements would be ensured through the application of **Mitigation Measure (MM) FIRE-1** (Pre-Construction Requirements), which would ensure adequate firebreaks and vegetation management is implemented prior to the issuance of grading and building permits (see Section 4.18 for more details). Further, per Section 9.10.070, Fire and Explosive Hazards, of the March JPA Development Code, the Project must adhere to fire and explosive hazard regulations for operation and activities in accordance with the Uniform Fire Code. Additionally, the Project would be subject to the payment of a DIF for

applicable fire facilities. Pursuant to Ordinance No. JPA 15-01, the Project's DIF amount for fire facility fees would be determined and paid at the time building permits are issued. Payment of development fees by the Project Applicant would be used to offset the costs of capital improvements that could be required to maintain acceptable service ratios, response times, and other performance objectives. In addition, the Project would be subject to the County's Structural Fire Tax, which would be used to offset the costs of increased operations and maintenance costs. The payment of development fees, along with a payment dedicated in the amount of $1.25 million, made during the recently authorized Disposition and Development Agreement, would further reduce impacts.

Given the above, although the Project's Campus Development would require fire protection services in the event of an emergency, the Project is not expected to result in the need for new or physically altered fire facilities, or to result in a station's inability to maintain acceptable service ratios, response times, or other performance objectives. No new facilities would be required to serve the Project, and as such, no environmental impacts resulting from the construction of new facilities would occur. The increase in demand for fire protection services due to the Project would result in a **less than significant impact**, and **MM-FIRE-1** would further reduce potential impacts. No additional mitigation is required.

Park

The proposed Project, under the Specific Plan buildout scenario, includes a 60.28-acre park west of the Barton Street extension. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. Access to the Park would be via Barton Street. As a Condition of Approval for this Project, an updated Parks Needs Assessment Report will be prepared to finalize the design and amenities included within the 60.28-acre park. For purposes of the analysis within this EIR, the most intensive park uses are assumed in order to provide a conservative estimate of potential environmental impacts associated with construction and operation of the Park. This proposed Park would provide a new recreational facility within for the region accessible to the public. The provision of this additional recreational facility would result in demand for fire protection services. However, the Park would be built in accordance with applicable fire code provisions, thereby reducing demand on fire protection services. Similar to the potential impacts associated with the Campus Development, **MM-FIRE-1** would be required to reduce potential impacts associated with wildfire risk during construction. Implementation of this mitigation measure would ensure regulatory compliance and would further reduce impacts. Therefore, the Park is not expected to result in the need for new or physically altered fire facilities, or to result in the station's inability to maintain acceptable service ratios, response times, or other performance objectives. The increase in demand for fire protection services due to the Project's Park would result in a **less than significant impact**, and **MM-FIRE-1** would further reduce potential impacts. No additional mitigation is required.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank. Construction of these improvements would result in demand for fire protection services. However, construction-related impacts are temporary and once complete, such impacts would no longer occur. In addition, such improvements would be built in accordance with applicable fire code provisions, thereby reducing demand on fire protection services. Similar to the potential impacts associated with the Campus Development, **MM-FIRE-1** would be required to reduce potential impacts associated with wildfire risk during construction. Implementation of this mitigation measure would ensure regulatory compliance and would further reduce impacts. Therefore, the Project's infrastructure improvements are

not expected to result in the need for new or physically altered fire facilities, or to result in the station's inability to maintain acceptable service ratios, response times, or other performance objectives. The increase in demand for fire protection services due to the Project's infrastructure improvements would result in a **less than significant impact**, and **MM-FIRE-1** would further reduce potential impacts. No additional mitigation is required.

Conservation Easement

The developer and the March JPA propose to establish a 445.43-acre Conservation Easement, which would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. Section 4.18. Wildfire, states the Conservation Easement is located near a Very High FHSZ given that it is located within 2 miles (the furthest distance flying embers are expected to travel). Although the Conservation Easement is near land susceptible to wildfire risk, no new development would occur within this area, in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Area is anticipated, there would be **no impact** with respect to fire protection services.

b.) Police protection?

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. As with fire protection services, increases in activities, visitors, employees, and events at the Project site as a result of Project implementation could increase the frequency of emergency and non-emergency calls to the Sheriff's Department from the Project site, as compared with existing conditions. Increased calls to the Sheriff's Department and/or increased need for Sheriff's Department support at the Project site would have the potential to increase the need for police protection services. A need for new or expanded public services, such as police facilities, is typically associated with a population increase. Through buildout of the Specific Plan Area, construction workers would be needed to support Project implementation, which could result in demand for police protection services. During construction, the Project applicant or its construction contractor would implement temporary security features including security fencing, lighting, and locked entries. These features would reduce the need for police protection services during the Project's construction phases. Temporary lane closures throughout the Project site may be expected. However, impacts would be limited given that the Project site is currently undeveloped and, instead, the Project would result in the construction of new roadways necessary for buildout. Overall, construction-related impacts would be temporary and once complete, such impacts would no longer occur (see Section 4.12 of this EIR for additional details). The Project would also not construct new housing on site, thus no future residential population would be generated as a result of the Project. While the Project would lead to increased employment on the site, it is determined that the Project would not induce substantial unplanned population growth (see Section 4.12 of this EIR), and with payment of Development Impact Fees (DIF), in the amount of $100,000 during the year the first mass grading permit is pulled as well as during the second year, the fees paid would account for any additional service patrols needed by the Sheriff's Department for the proposed Project.

The closest sheriff station is the Moreno Valley patrol station (22850 Calle San Juan De Los Lagos), located approximately 1.47 miles northeast of the Project site. As stated previously, overall response times from the Moreno

Valley substation is approximately 5 minutes for priority one emergencies and 10 minutes for priority two emergencies. In addition to existing services and response times, police units are continuously mobile and service calls are responded to by the nearest available mobile unit. As such, the location of the Project site relative to the nearest station would not affect police protection. In addition to the base level of service from the County Sheriff's Department, March JPA contracts with the Sheriff's Department for 40 hours of patrol service per week and truck route enforcement paid through an existing truck route mitigation fund. Operations and maintenance for base level sheriff services are financed through the Law Enforcement sales tax and property taxes. Additionally, the Project is subject to the payment of a DIF for police protection facilities. Pursuant to Ordinance No. JPA 15-01, the Project's DIF amount for police protection facilities would be determined and paid at the time building permits are issued (March JPA 2015). Payment of development fees by the Project Applicant would be used to offset the costs of capital improvements that could be required to maintain acceptable service ratios, response times, and other performance objectives. The payment of development fees would further reduce impacts.

Furthermore, the Project would be consistent with and would not conflict with the implementation of the March JPA General Plan policies pertaining to safety/risk management listed in Section 4.13.2. As substantiated in this analysis, the Project is not anticipated to adversely affect service ratios or response times for police services, through payment of required DIF, such that new or expanded police facilities would be required. Therefore, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities; impacts would be **less than significant**, and no mitigation is required.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. Access to the Park would be via the Barton Street extension. As a Condition of Approval for this Project, an updated Parks Needs Assessment Report will be prepared to finalize the design and amenities included within the 60.28-acre Park. For purposes of the analysis within this EIR, the most intensive park uses are assumed in order to provide a conservative estimate of potential environmental impacts associated with construction and operation of the Park. The provision of this additional recreational facility would result in demand for police protection services. The proposed recreational amenities would include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. These uses would be secured as required by the March JPA Development Code, including walls, fences, and lighting. All of which would further reduce demand and impacts related to police protection services. Therefore, the Park is not expected to result in the need for new or physically altered police facilities, or to result in the station's inability to maintain acceptable service ratios, response times, or other performance objectives. The increase in demand for police protection services due to the Project's Park would result in a **less than significant impact**, and no mitigation is required.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 MG reclaimed water tank. Similar to fire protection services, these improvements could result in demand for police protection services. However, these improvements would be implemented during the Project's construction phase. Once operational, the public facilities would be secured as required by the March JPA Development Code. Therefore, the Project's infrastructure improvements are not expected to result in the need for new or physically altered police facilities, or to result in the station's inability to

maintain acceptable service ratios, response times, or other performance objectives. The increase in demand for police protection services due to the Project's infrastructure improvements would result in a **less than significant impact**, and no mitigation is required.

Conservation Easement

The developer and the March JPA propose to establish a 445.43-acre Conservation Easement, which would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. No new development would occur within this area, and the Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Area is anticipated, there would be **no impact** with respect to police protection services.

c.) Schools?

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan.

The Project site is located within the Moreno Valley Unified School District. In the 2020-2021 school year, Moreno Valley Unified School District had a cumulative total of 31,597 students enrolled (Ed-Data 2021). Through buildout of the Specific Plan, construction workers would be needed to support Project implementation. As described in Section 4.12, construction activities would be temporary, drawing workers from the surrounding regional population, which would not increase population or impacts to local schools. During operations, the Project would generate approximately 2,600 new jobs and would not result in the construction of new housing on the site. As discussed in Section 4.12, the Project would not result in a substantial increase of unplanned population growth. Instead, it is likely that the majority of the future employees are already residents of the nearby communities. Therefore, the Project would not directly generate significant additional student enrollment within the surrounding area. Instead, it is assumed the Project's future employees are currently served and enrolled by the Project area's schools. As such, the minimal potential student enrollment generated as an indirect result of the Project would be distributed amongst nearby school districts.

Additionally, per Senate Bill 50 (1998) and the California Education Code (as described in Section 4.13.2, above), the governing board of any school district may collect impact fees from developers of new residential, commercial, and industrial developments within the boundaries of the district for the purpose of funding the construction or reconstruction of school facilities. Furthermore, the payment of these fees by a developer serves to fully mitigate all potential project impacts on school facilities from implementation of a project to less-than-significant levels. Sections 65996(a) and (b) state that such fees collected by school districts provide full and complete school facilities mitigation under CEQA. Therefore, with the payment of the applicable school fees, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental

impacts to maintain acceptable service ratios, or other performance objectives for schools. Impacts to schools would be **less than significant**, and no mitigation is required.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. These uses would not result in the generation of a new residential population necessary for the generation of a potential student enrollment. Given this, the Park is not expected to result in the need for new or physically altered school facilities, or to result in schools' inability to maintain acceptable service ratios, response times, or other performance objectives. As no student generation is anticipated as a result of the Project's park, there would be **no impact** with respect to school services.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 MG reclaimed water tank. Similar to the Project's park component, proposed infrastructure improvements would not result in the generation of a new residential population necessary for the generation of a potential student enrollment. Given this, the infrastructure improvements are not expected to result in the need for new or physically altered school facilities, or to result in schools' inability to maintain performance objectives. As no student generation is anticipated as a result of the Project's infrastructure improvements, there would be **no impact** with respect to school services.

Conservation Easement

The developer and the March JPA propose to establish a 445.43-acre Conservation Easement, which would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. No new development would occur within this area, and the Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Area is anticipated, there would be **no impact** with respect to school services.

d.) Parks?

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan.

A need for new or expanded parks is typically associated with a population increase. Through buildout of the Specific Plan, construction workers would be needed to support Project implementation. As described in Section 4.12, construction activities would be temporary, drawing workers from the surrounding regional population, which would

not increase population or impacts to parks. The Project would not result in the construction of new housing on site or within the jurisdiction of March JPA. However, it is anticipated that the Project would employ approximately 2,600 employees. As shown in Section 4.12, the Project would not result in a substantial increase of unplanned population growth. Instead, it is likely that the majority of the future employees are already residents of the nearby communities. As such, the Project would not result in increased use of existing parks and recreational facilities surrounding the Project site. Under existing conditions, the Project site is surrounded by existing parks and recreational facilities. For example, March JPA includes the General Old Golf Course, which is an 18-hole course open to the public. The March JPA planning area also includes the now-constructed 3-acre Veterans park and 58.4-acre trail system/open space in the South Campus Specific Plan area. Additionally, Orange Terrace Community Park, Thundersky Park, and Sycamore Canyon Wilderness Park, located within the City of Riverside, serve the Project site and the surrounding vicinity. Given this, the Project site is currently supported by park services and the Project would not result in the generation of a residential population that would increase demand for park services. Therefore, the Project is not expected to result in the need for new or physically altered park facilities, or to result in existing parks' inability to maintain performance objectives. The increase in demand for park services due to the Project would result in a **less than significant impact**, and no mitigation is required.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. Access to the Park would be via the Barton Street extension. As a Condition of Approval for this Project, an updated Parks Needs Assessment Report will be prepared to finalize the design and amenities included within the 60.28-acre Park. For purposes of the analysis within this EIR, the most intensive park uses are assumed in order to provide a conservative estimate of potential environmental impacts associated with construction and operation of the Park. This proposed Park would provide a new recreational facility within for the region accessible to the public. The provision of this additional recreational facility would reduce demand for park services. Therefore, the 60.28-acre Park is not expected to result in the need for new or physically altered park facilities, or to result in the inability to maintain performance objectives. Therefore, impacts associated with parks and recreational facilities would be a **beneficial impact**, and no mitigation is required.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 MG reclaimed water tank. Proposed infrastructure improvements would not result in substantial unplanned population. Given this, the infrastructure improvements are not expected to directly result in the need for new or physically altered park facilities, or to result in parks' inability to maintain performance objectives. However, similar to the Project's Campus Development, these improvements would indirectly result in population growth through the facilitation of the Project's employees and operations. Therefore, the increase in demand for park services due to the Project's infrastructure improvements would result in a **less than significant impact**, and no mitigation is required.

Conservation Easement

The developer and the March JPA propose to establish a 445.43-acre Conservation Easement, which would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south

and east of the Specific Plan Area. No new development would occur within this area, and the Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Area is anticipated, there would be **no impact** with respect to parks.

e.) Other public facilities?

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan.

Other public facilities and services provided within the Project site's local vicinity include library services and administrative services. A need for new or expanded public facilities is typically associated with a population increase. Through buildout of the Specific Plan, construction workers would be needed to support Project implementation. As described in Section 4.12, construction activities would be temporary, drawing workers from the surrounding regional population, which would not increase population or impacts to other public facilities. During operations, the Project would not result in new housing, thus no future residential population would be generated as a result of the Project. While the Project would lead to increased employment on the site, it was determined that the Project would not induce substantial unplanned population growth (see Section 4.12 of this EIR). Further, the Project would be subject to the March JPA Ordinance No. JPA 15-01 (March JPA 2015), which allocates the funds collected from new development to public facilities. These fees would be used for the acquisition and construction of new public facilities. However, the Project would not require the construction of new or expanded other public service facilities (i.e., libraries and administrative services). Therefore, impacts to other public facilities would be **less than significant**, and no mitigation is required.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. These uses would not result in the generation of a new residential population. Given this, the Park is not expected to result in the need for other new or physically altered public facilities, or to result in these public facilities' inability to maintain performance objectives. As no residential generation is anticipated as a result of the Project's Park, there would be **no impact** with respect to other public services.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 MG reclaimed water tank. Construction of these improvements would not result in demand for other public services. Construction-related activities are temporary and once complete, associated impacts would no longer occur. Once operational, the Project's infrastructure improvements are not expected to result in the need for other new or physically altered public facilities, or to result

in these public services' inability to maintain performance objectives. As no residential generation is anticipated as a result of the Project's infrastructure improvements, there would be **no impact** with respect to other public services.

Conservation Easement

The developer and the March JPA propose to establish a 445.43-acre Conservation Easement, which would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. No new development would occur within this area, and the Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Area is anticipated, there would be **no impact** with respect to other public services and facilities.

4.13.5 Mitigation Measures

Impacts related to fire protection services would be less than significant and incorporate **MM-FIRE-1** (Pre-Construction Requirements) to further reduce impacts (see Section 4.18 for more discussion). Impacts related to all other public services would be less than significant, and no mitigation measures are required.

4.13.6 Level of Significance After Mitigation

Impacts related to fire protection services would be **less than significant**. With implementation of **MM-FIRE-1**, impacts related to fire protection services would be further reduced. No additional mitigation is required. All other public services would be **less than significant**, and no mitigation measures are required.

4.13.7 Cumulative Effects

As indicated above, the Project would result in less-than-significant impacts to public services. However, a significant adverse cumulative impact to public services would occur if the service demands of the Project were to combine with those of related projects, triggering a need for new or physically altered public services, the development of which could cause significant environmental impacts. A significant adverse cumulative impact could also occur if the Project were to make a considerable contribution to a previously existing deficit in public services.

Fire and Police

As discussed in Section 4.13.1, Existing Conditions, the Project site is served by the County Fire Department and the Sheriff's Department for fire and police protection services, respectively. In addition, supplemental fire protection service, if needed, is provided by the City of Riverside and the March ARB Fire Department, through mutual aid agreements. Cumulative growth within the Project vicinity would increase the demand for fire protection services. This growth would result in the need for future fire station facilities, as identified in the County of Riverside EIR No. 521 for the County of Riverside General Plan (County of Riverside, 2015). A new fire station, located at the northeast corner of Opportunity Way and Meridian Parkway within the Meridian North Campus of March JPA, was originally identified as a mitigation measure within the certified 2003 Focused EIR prepared for the approved March Business Center Specific Plan. In 2010, a Final Subsequent EIR (SEIR) was prepared for a 257.7-acre portion of the Specific Plan to address changes in land uses, development regulations and allowed uses set forth in the Specific Plan which is now referred to as the Meridian Specific Plan. The construction and operation of the new fire station was included in the 2010 SEIR analysis. Although the 2010 SEIR determined the overall project would have

significant and unavoidable traffic, air quality, and GHG impacts, the fire station contributed only a de minimus amount[1] and would be subject to all of the mitigation measures set forth in the 2010 SEIR. Therefore, construction and operation of the new fire station to serve cumulative development would have a less than significant impact.

Additionally, the Project alone would not have a significant effect on fire and police protection services and any cumulative impact is addressed through the recently approved Disposition and Development Agreement in which a total of $1.25 million was dedicated for the purposes of improving fire protection services and two payments in the amount of $100,000 would be made to offset cost increases for Sheriff Department services. As such, the Project would not cause the need for new or physically altered government facilities in order to maintain acceptable levels of service related to fire and police protection.

Construction-related impacts would be less than significant due to the temporary need for construction workers, which may come from surrounding communities or elsewhere within the SCAG region. In addition, the different construction activities require specific skill sets for a much shorter duration than the overall construction schedule and phasing. Because construction workers would not be needed continuously and only for varying portions of the Project phases, it is reasonable to assume that workers/crews would work at the Project site on a temporary basis only, and thus, are not likely to relocate their households as a consequence of the construction job opportunities presented by the Project. Because the demand for construction workers would be short-term, and because the Project site within an urban metropolitan region with a high diversity of skilled labor, a permanent need for new workers to relocate in order to accommodate the proposed Project's temporary construction workforce is not anticipated. Given this, the Project is not anticipated to result in significant impacts to fire and police protection services. Related projects within the Project site's vicinity would be required to comply with the applicable safety provisions required for construction activities. Similar to the proposed Project, related projects would result in short-term demand for construction workers in a Project area with a high diversity of skilled labor. As such, the Project, in combination with related projects, is not anticipated to result in a cumulatively significant impact to fire and police protection services during construction.

During operations, projects located in the surrounding area within incorporated cities would be served by their respective fire and police departments. Additionally, other projects within March JPA would be subject to the payment of DIF for fire and police capital facilities. Further, new development would also generate revenues (in the form of property taxes, sales tax revenue, etc.) that would be applied toward the provision of fire and police protection resources and related staffing, as applicable. As the Project would have a less-than-significant impact with respect to police and fire protection services, the Project **would not result in a cumulatively considerable contribution** to any cumulative police or fire protection services impacts, and no mitigation is required.

Parks, Schools, and Other Public Facilities

Cumulative impacts to schools would be offset by the payment of the fees per Senate Bill 50 and the California Education Code (Title 1, Chapter 6, Section 17620), which allows school districts to charge fees on new development within the district's boundaries. Further, increased use of parks and other public facilities, such as libraries, are generally attributed to residential development. As previously discussed, the Project does not include residential uses but does include new park facilities that will serve the region. As the Project would have a less-than-significant impact with respect to parks, schools, and other public services, the Project **would not result in a**

[1] The 2010 SEIR describes the fire station as a 10,000 square foot urban station out of 4,205,000 square feet of development (0.24%). According to the 2010 SEIR Traffic Report, Table 5-2, the fire station contributed 46 of the analyzed 19,678 project trips (0.23%).

cumulatively considerable contribution to any cumulative parks, schools, and other public services impacts, and no mitigation is required.

4.13.8 References Cited

County of Riverside. 2003. Final Program Environmental Impact Report No. 441 for the 2003 RCIP General Plan. SCH No. 2002051143, certified by Riverside County Board of Supervisors, October 7, 2003. https://planning.rctlma.org/Portals/0/genplan/content/eir/volume1.html.

County of Riverside. 2015. Draft Program EIR No. 521 for the Riverside County General Plan Update Project, State Clearinghouse No. 2009041065. Accessed January 3, 2023. https://planning.rctlma.org/Portals/14/genplan/general_plan_2015/DEIR%20521/DEIR%20No.%20521.pdf.

Ed-Data (Education Data Partnership). 2021. Moreno Valley Unified. District Summary. Accessed on February 2022. https://www.ed-data.org/district/Riverside/Moreno-Valley-Unified.

March JPA (Joint Powers Authority). 1999. General Plan of the March Joint Powers Authority. 1999. Accessed August 30, 2021. https://www.marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

March JPA. 2010. Meridian Specific Plan Amendment Final Subsequent Environmental Impact Report. State Clearinghouse No. 2009071069. July 2010.

March JPA. 2015. Ordinance #JPA 15-01. Development Impact Fees. Accessed September 01, 2021. http://marchjpa.com/documents/docs_forms/development_fees_2015.pdf.

March JPA. 2017. Draft Environmental Impact Report for the Meridian West Campus-Lower Plateau Project. State Clearinghouse No. 2016061020. June 2017.

March JPA. 2022a. School Districts. Map. Accessed January 2022. https://marchjpa.com/documents/docs_forms/MJPA_SchoolDistrict.pdf

March JPA. 2022b. *Local Guidelines for Implementing the California Environmental Quality Act for March Joint Powers Authority and March Inland Port Airport Authority and Successor Agency of the Former March Joint Power Redevelopment Agency and March Joint Powers Utilities Authority*. https://www.marchjpa.com/documents/docs_forms/05172022_MJPA_2022_CEQA_Guidelines.pdf.

4.14 Recreation

This section describes the potential impacts of the proposed West Campus Upper Plateau Project (Project) related to recreation, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to the implementation of the Project. In addition to other documents, the following references were used in the preparation of this section of the Draft Environmental Impact Report (EIR):

- March Joint Powers Authority (JPA) General Plan (March JPA 1999)
- City of Riverside General Plan 2025 – Parks and Recreation Element (City of Riverside 2012)
- County of Riverside General Plan – Multipurpose Open Space Element (County of Riverside 2015)

Other sources consulted are listed in Section 4.14.8, References Cited.

As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.14.1 Existing Conditions

Site Conditions

Existing development within the Project site consists of an unused water tower, asphalt paved and dirt access roads, seven buildings in various states of abandonment, chain-link fencing, and 16 bunkers that were previously used for munitions storage by the Air Force. All of the bunkers are currently used by Pyro Spectaculars Inc. for the storage of fireworks. The remainder of the site is generally unoccupied. While the Specific Plan Area encompasses existing development and previously disturbed land, the Conservation Easement area primarily consists of open space and undeveloped land. Existing trails within the Conservation Easement area are used by the public for passive recreational use consistent with the terms of the CBD Settlement Agreement (Appendix S).

General Plan and Zoning

Per March JPA General Plan Land Use Designations, the majority of the Conservation Easement's land use designation is Business Park (BP) and a substantial portion of the Specific Plan Area's land use designation is Park/Recreation/Open Space (P/R/OS) (Figure 3-2, March JPA Existing and Proposed General Plan Land Use Designations). The Project site has not been assigned a zoning designation per the official March JPA Zoning Map (Figure 3-3, March JPA Zoning).

Local and Regional Parks

The March JPA jurisdiction includes the General Old Golf Course (golf course), which is located approximately 1.2 miles south of the Project site. The golf course is an 18-hole course open to the public, located on 314 acres owned by the Riverside National Cemetery. In addition, under existing conditions, the March JPA Planning area includes the March Air Field Museum and the now-constructed 3-acre Veterans park and the adjacent 58.4-acre open space/trail system in the South Campus Specific Plan area. Orange Terrace Community Park, Thundersky Park, and Bergamont Park are located within the City of Riverside approximately 0.13 miles, 0.4 miles, and 1 mile south of the Project site, respectively.

4.14.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal regulations related to the provision of recreational facilities that are applicable to the Project.

State

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds. The Quimby Act only applies to development of residential subdivisions, and thus the Project would not be subject to the Act.

California Public Park Preservation Act

The primary instrument for protecting and preserving parkland is California's Public Park Preservation Act of 1971, California Public Resources Code Sections 5400 through 5409. Under the act, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation, land, or both, are provided to replace the parkland acquired.

The act only applies when a public agency both acquires real property that is in use as a public park, and the public agency uses the property for non-park purposes. The Project does not involve the public agency conversion of parkland to non-park uses. Therefore, the act does not apply. In addition, the proposed Project would not impact any existing land used for park purposes.

Local

March Joint Powers Authority General Plan

Resource Management Element

The Resource Management Element provides for the conservation, development, and use of natural, historical, and cultural resources. The Resource Management Element also details plans and measures for the preservation of open space designed to promote the management of natural resources, outdoor recreation and public health and safety. This Element identifies open space lands to include the golf course, installation restoration program clean-up sites, airfield and aviation related clear zones, riparian and open space habitat areas, and the expansion areas for the Riverside National Cemetery.

Recreational facilities in the March JPA Planning area consist of the golf course, the March Air Field Museum, and the now-constructed 61.4-acre open space and trail system located at the southwest corner of Village West Drive and Krameria Avenue, in the South Campus Specific Plan area.

The goals and policies relevant to recreation and the Project from the Resource Management Element are described below (March JPA 1999):

Water Resources

Policy 1.6: Promote the use of drought tolerant landscaping in development, and encourage the use of reclaimed water for irrigation in parks, golf courses, and industrial uses, as well as for other urban uses, whenever feasible and where legally permitted.

Earth Resource Conservation and Protection

Policy 3.1: Conserve hillsides and rock outcroppings in the planning area through the use of master-planned developments which create a "campus-like" setting, and encourage the creative siting of building areas as a means of retaining natural areas and open -space.

Flora and Fauna Resources

Policy 5.1: Where practical, conserve important plant communities and habitats such as riparian areas, wetlands, significant tree stands, and species by using buffers, creative site planning, revegetation and open space easement/dedications.

Policy 5.2: Encourage the planting of native species of trees and other drought-tolerant vegetation.

Policy 5.5: Where practical, allow development to remove only the minimum natural vegetation and encourage the revegetation of graded areas with native plant species.

Recreational Facilities

Goal 8: Develop and maintain recreational facilities as economically feasible, and that meet the needs of the community for recreational activities, relaxation and social interaction.

Policy 8.1: Provide active and passive park and recreational facilities, based on reasonable service areas within the planning area, to serve the unmet needs of the community and sub-region.

Policy 8.2: Encourage involvement of private investment in the development of recreational facilities, when appropriate, to increase the recreational opportunities of the area.

Policy 8.3: Seek out and pursue all forms of federal, state, local, private foundation and endowment support to assist in the development and programming of park and recreation resources in March JPA Planning Area.

Policy 8.4: Coordinate with the other recreational programs and agencies in providing regional recreational facilities in the area.

Protect and Provide for Open Space Areas

Goal 9: Create a network of open space areas and linkages throughout the Planning Area that serve to preserve natural resources, protect health and safety, contributes to the character of the community, provide active and passive recreational use, as well as visual and physical relief from urban development.

Policy 9.1: Encourage a "link" system of open space land to intermix with development providing both visual buffers and relief, as well as preservation and connectivity of the natural environment.

Policy 9.2: Seek funding sources for the preservation and maintenance of open space in the March JPA Planning Area.

Policy 9.3: Allow recreational uses on designated open space lands.

Policy 9.4: Manage passive recreational open spaces to optimize use while avoiding environmental disruption.

Policy 9.5: Link open space areas and trails with adjacent regional and local open space and trails networks.

Policy 9.6: Establish an open space conservation program that identifies areas of open space retention based upon capital costs, operation and maintenance costs, accessibility, needs, resource preservation, ability to complete or enhance the existing open space linkage system and natural environment.

Policy 9.7: As appropriate, designate washes, channels, utility corridors and transportation rights-of-way as major linkages of the open space network.

Policy 9.8: Enforce the standards of the military and FAA relative to aviation hazard areas to protect the use of the aviation field, and use of property within its vicinity.

Center for Biological Diversity v. Jim Bartel, et. al – CBD Settlement Agreement

The CBD Settlement Agreement (Appendix S) identified 60 acres to be dedicated as parkland or open space for active recreational use as depicted in Figure 3-4, CBD Settlement Agreement. As discussed in Section 3, the Project would include the construction of the park, including a park with Active uses, as envisioned within the CBD Settlement Agreement (Appendix S). The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users.

4.14.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts related to recreational facilities are based on the following 2022 March JPA California Environmental Quality Act (CEQA) Guidelines. The Project would result in significant impacts if it would:

REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

REC-2: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

4.14.4 Impacts Analysis

Threshold REC-1. ***Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. A recreational trail would be constructed within the southern open space parcel to connect the proposed park (see discussion below) with existing trails within the Conservation Easement. Under the buildout scenario, it is anticipated that the Project would employ approximately 2,600 full-time employees. As discussed in detail in Section 4.12, Population and Housing, the additional employment opportunities would be supported by the existing population in the communities surrounding the Project site. Therefore, it is likely that the majority of the future employees are already residents of the nearby communities and are already using the local parks and recreational facilities. Riverside County offers 35 Regional Parks, encompassing roughly 23,317 acres (County of Riverside 2015). The City of Riverside maintains 52 public parks and additional open space areas encompassing more than twenty-three hundred acres (City of Riverside 2012). Additionally, as detailed below, Project employees would have access to the new park constructed by the Project. Therefore, impacts associated with recreational facilities within the Campus Development would be **less than significant**.

Park

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. Access to the park would be via Barton Street. As a Condition of Approval for this Project, an updated Parks Needs Assessment Report will be prepared to finalize the design and amenities included within the 60.28-acre park. For purposes of the analysis within this EIR, the most intensive park uses are assumed in order to provide a conservative estimate of potential environmental impacts associated with construction and operation of the park. This new park would provide a new recreational facility for the region accessible to the public. The provision of this additional recreational facility would likely shift demand from other area parks, thereby reducing the demand for, and potential physical deterioration of other area parks. As such, construction and operation of the proposed park under this Project would result in **beneficial** recreation impacts.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank. No recreational facilities would be constructed as part of the infrastructure improvements. Given that the infrastructure improvements would not result in new employment opportunities or population growth within the region, impacts would be **less than significant**, and no mitigation is required.

Conservation Easement

In addition to the 60.28-acre park proposed within the Specific Plan Area, the Conservation Easement would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. The currently existing service roads within the Conservation Easement, as depicted by the red lines on Figure 3-4, would continue to be utilized by the public for passive recreation as authorized by the March JPA, consistent with the terms of the CBD Settlement Agreement (Appendix S). However, no new development would occur within this area, and the Conservation Easement would be established in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to recreational resources.

Threshold REC-2. 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?

Specific Plan Area

Campus Development

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. A recreational trail would be constructed within the southern open space parcel to connect the proposed park (see discussion below) with existing trails within the Conservation Easement.

Construction activities related to the recreational trail would involve introducing heavy machinery to the Specific Plan Area for grading and development. Staging of construction equipment and construction activities would be implemented according to March JPA Development Code Section 9.08.180, Storage. Impacts associated with trail construction would be temporary and short in duration. Therefore, impacts associated with construction of the recreational amenities associated with the southern open space parcel are **less than significant,** and no mitigation is required.

During operation, it is anticipated that Specific Plan implementation would employ approximately 2,600 full-time employees. As discussed in detail in Section 4.12, Population and Housing, the additional employment opportunities would be supported by the existing population in the communities surrounding the Specific Plan Area. Therefore, it is likely that the majority of the future employees are already residents of the nearby communities and are already using the local parks and recreational facilities. Riverside County offers 35 Regional Parks, encompassing roughly 23,317 acres (County of Riverside 2015). The City of Riverside maintains 52 public parks and additional open space areas encompassing more than twenty-three hundred acres (City of Riverside 2012). Additionally, as detailed below, Specific Plan Area employees would have access to the new park constructed by the Project. Therefore, recreational impacts associated with the Project's Campus Development would be **less than significant**, and no mitigation is required.

Park

Construction activities related to the Park would involve introducing heavy machinery to the Park site for grading and development of recreational facilities and amenities. Additionally, as discussed throughout this EIR, impacts associated with the Project's construction, including the Project's proposed recreational amenities, would incorporate mitigation measures to reduce construction impacts to the following topic areas: air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, transportation, and wildfire. Construction impacts related to cultural resources would be significant and unavoidable even with mitigation incorporated, as discussed within this EIR. However, staging of construction equipment and construction activities associated with the Park's construction would be implemented according to March JPA Development Code Section 9.08.180, Storage, regarding the storage of construction equipment and building materials. Impacts associated with Park construction would be temporary and short in duration. In addition, implementation of the recreational amenities associated with the Park would be required to comply to the proposed Specific Plan's design guidelines. Therefore, impacts associated with construction of the recreational facilities and amenities associated with the Park would be **less than significant**, and no additional mitigation is required.

During operation of the Park, this new 60.28-acre recreational amenity would be available to the public throughout the region. As discussed in both Section 4.12, Population and Housing, and Threshold REC-1, Specific Plan buildout would not generate substantial population growth and thus is not expected to significantly impact recreational facilities in the surrounding area. Additionally, as discussed throughout this EIR, impacts associated with the Project's operation, including the proposed recreational amenities, would incorporate mitigation measures to reduce operational impacts to the following topic areas: aesthetics, air quality, transportation, and tribal cultural resources. Impacts related to air quality and noise would be significant and unavoidable, as discussed within this EIR. However, the proposed Park would be available for both passive and active recreational use and would not generate significant new vehicle traffic or result in air emissions associated with vehicle traffic. As such, operational impacts associated with the proposed recreational facilities and amenities associated with the Park would be **less than significant**, and no additional mitigation is required.

Infrastructure Improvements

Infrastructure improvements associated within the proposed Specific Plan include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 MG reclaimed water tank. No recreational facilities would be constructed as part of the infrastructure improvements. Given that the infrastructure improvements would not result in new employment opportunities or population growth within the region and that the infrastructure improvements would not include any recreational amenities or features, impacts would be **less than significant**, and no mitigation is required.

Conservation Easement

The Conservation Easement would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. The currently existing service roads within the Conservation Easement, as depicted by the red lines on Figure 3-4, would continue to be utilized by the public for passive recreation as authorized by the March JPA, consistent with the terms of the CBD Settlement Agreement (Appendix S). However, no new development would occur within this area, and the Conservation Easement would be created in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to recreational resources.

4.14.5 Mitigation Measures

Although the construction of the Park component of the Project would result in less-than-significant impacts, as part of the overall Project, the following mitigation measures would be applicable to construction and operation:

- **MM-AES-1** through **MM-AES-3**
- **MM-AQ-1** through **MM-AQ-15**
- **MM-BIO-1** through **MM-BIO-9**
- **MM-CUL-1** through **MM-CUL-9**
- **MM-GEO-1** and **MM-GEO-2**
- **MM-HAZ-1** through **MM-HAZ-3**
- **MM-HYD-1** through **MM-HYD-3**
- **MM-TRA-1** and **MM-TRA-2**
- **MM-FIRE-1** through **MM-FIRE-3**

4.14.6 Level of Significance After Mitigation

The Project would result in a **less than significant impact** to recreation, and no additional, recreation-specific mitigation measures are required.

4.14.7 Cumulative Effects

Specific Plan Area

Table 4-2, Cumulative Projects, in Chapter 4, Environmental Analysis, of this EIR includes a list of cumulative development proposals within the vicinity of the proposed Project (related projects). Each related project would undergo an evaluation for physical effects to the environment, including impacts to existing recreational facilities and demand for new facilities. None of the related projects identified in Table 4-2 are recreational projects. Furthermore, related projects identified in Table 4-2 would be required to contribute to a fair share contribution of the cost of facilities based on standards such as the minimum parkland-to-population ratio for their respective jurisdictions. Impacts associated with the construction and operation of potential new recreational facilities would be analyzed within each related project's California Environmental Quality Act review. As such, each related project would be required to contribute to development impact fee programs, if applicable, or expand or construct new facilities, as needed. As discussed above, the proposed Project would result in less than significant impacts to recreational facilities. Therefore, the proposed Project, when viewed in context with the cumulative development proposals, is expected to result in **less than significant cumulative impacts** related to recreation.

Conservation Easement

As detailed above, no new development would occur within this area, and the Conservation Easement would be created in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be no impact with respect to recreational resources. Similar to the cumulative analysis for the Specific Plan area, impacts associated with the construction and operation of potential new recreational facilities would be analyzed within each related project's CEQA review. Therefore, the proposed Project, when viewed in context with the cumulative development proposals, is expected to result in **no cumulative impacts** related to recreation.

4.14.8 References Cited

City of Riverside. 2012. Riverside General Plan 2025 – Parks and Recreation Element. Amended November 2012. Accessed August 2021. https://riversideca.gov/cedd/sites/riversideca.gov.cedd/files/pdf/planning/general-plan/15_Park_and_Recreation_Element.pdf.

County of Riverside. 2015. County of Riverside General Plan - Multipurpose Open Space Element. Revised December 08, 2015. Accessed August 2021. https://planning.rctlma.org/Portals/14/genplan/general_Plan_2017/elements/OCT17/Ch05_MOSE_120815.pdf?ver=2017-10-11-102103-833.

March JPA (Joint Powers Authority). 1999. *General Plan of the March Joint Powers Authority*. Accessed May 2020. https://www.marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

INTENTIONALLY LEFT BLANK

4.15 Transportation

This section identifies associated regulatory requirements; describes the existing traffic conditions within the proposed West Campus Upper Plateau Project (Project) area; evaluates potential adverse impacts related to conflicts with an applicable program, plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities; conflicts or inconsistencies with California Environmental Quality Act (CEQA) Guidelines Section 15064.3(b); lists any applicable Project Design Features (PDFs); and identifies mitigation measures related to implementation of the proposed Project. The transportation analysis shown in this section presents and uses the vehicle miles traveled (VMT) metric per CEQA requirements.

The following documents were used in the preparation of this section of the Draft EIR. The complete reports are included as Appendix N of this Draft EIR.

- West Campus Upper Plateau Vehicle Miles Traveled (VMT) Analysis, prepared by Urban Crossroads, October 10, 2022
- West Campus Upper Plateau Traffic Analysis, Prepared by Urban Crossroads, October 18, 2022

The transportation analysis including the Vehicle Miles Traveled Analysis and Traffic Analysis (TA), were prepared per requirements established by the March Joint Powers Authority (JPA) CEQA Guidelines (BB&K 2022), March JPA Final Traffic Impact Study Preparation Guide (March JPA 2020), Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018), Western Riverside Council of Governments (WRCOG) Senate Bill (SB) 743 Implementation Pathway Document Package (WRCOG 2019) and Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (WRCOG 2020), and the California Department of Transportation (Caltrans) Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance (Caltrans 2020a). Additionally, consultation with March JPA, County of Riverside, City of Riverside, and City of Moreno Valley staff occurred during the scoping process., and the traffic study scoping agreement was approved on December 22, 2021.

As discussed in detail in Chapter 3, Project Description of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

Buildout of the Specific Plan Area would also include the extension of Cactus Avenue from its existing western terminus to provide access to the proposed Campus Development and the internal roadway system, consisting of

Airman Drive on the west, Arclight Drive on the north, Linebacker Drive on the east, and Bunker Hill Drive on the south, as shown in Figure 3-5. Barton Street would also be extended from Alessandro Boulevard to the north to connect to Grove Community Drive to the south, consistent with the Circulation Element of the City of Riverside's General Plan. An emergency vehicle access driveway, with a Knox box-controlled access gate that can only be locked and unlocked by emergency service providers, would be provided at the western terminus of Cactus Avenue to provide an emergency connection to Barton Street. This emergency vehicle access driveway would also serve as a pedestrian and bicyclist connection from Barton Street to Cactus Avenue to provide a linkage to the Specific Plan Area and the Metrolink station to the east of the Project site.

The new Park would be accessed from the north and south by extending Barton Street to connect from Alessandro Boulevard in the north to Grove Community Drive in the south. Secondary access to the Specific Plan Area would be via Brown Street, which would be extended south to connect from Alessandro Boulevard to the new extension of Cactus Avenue. Truck routes are proposed along Cactus Avenue to I-215, as well as along Linebacker Drive, Arclight Drive, Airman Drive, and Bunker Hill Drive (see Figure 3-6, Proposed Truck Routes), all of which would connect to existing truck routes along Alessandro Boulevard, Meridian Parkway, and Cactus Avenue (east of Meridian Parkway). As shown in Figure 3-6, trucks from the Specific Plan Area would be prohibited along the Barton Street extension. Trucks would also be prohibited from turning left on Brown Street to access Alessandro Boulevard.

Additionally, direct access to retail uses would be via internal roadways of Airman Drive, Arclight Drive, Linebacker Drive and Bunker Hill. There would be no direct access to retail uses from Barton Street.

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement. No development or ground disturbance is proposed within the Conservation Easement (Appendix S).

4.15.1 Existing Conditions

This section provides a summary of the existing circulation network, the March JPA General Plan Circulation Network, other General Plan Circulation Elements, bicycle and pedestrian facilities, truck routes and transit service.

The proposed Project is located within the March JPA planning area, on either side of Barton Street and Cactus Avenue, in unincorporated Riverside County, California. Interstate (I) 215 is located approximately 2.5 miles east of the Project site via Cactus Avenue, Alessandro Boulevard, and Van Buren Boulevard. Cactus Avenue will not extend west of Airman Drive to Barton Street; however, an emergency vehicle access (EVA) only connection will be maintained and not be accessible by any vehicular traffic. The Project would construct internal streets, consisting of Linebacker Drive, Airman Drive, Bunker Hill Drive, and Arclight Drive to facilitate internal on-site circulation.

Existing Circulation Network

Figure 4.15-1 illustrates the circulation network near the Project. The Project's traffic study area includes a total of 38 existing and future intersections as shown in Figure 4.15-1, Roadway Network near the Project.

General Plan Transportation Element

The Project site is located within the March JPA planning area, but the traffic study area includes intersections that share borders with the neighboring jurisdictions of the County of Riverside, City of Riverside, City of Moreno Valley, and Caltrans.

March Joint Powers Authority

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the March JPA General Plan Transportation Element. The March JPA General Plan Transportation Element (March JPA 1999) roadway classification map and roadway cross-sections are shown on Figure 4.15-2 and Figure 4.15-3, respectively.

County of Riverside, City of Riverside, and City of Moreno Valley

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the County of Riverside General Plan Circulation Element and roadway cross-sections, City of Moreno Valley General Plan Circulation Element and roadway cross-sections, City of Riverside General Plan Circulation Element and roadway cross-sections are shown on Exhibits 3-4 through 3-9 of the TA, included within Appendix N of this Draft EIR.

Truck Routes

The March JPA designated truck route map is shown on Figure 4.15-4. Alessandro Boulevard, Meridian Parkway, Cactus Avenue, and Van Buren Boulevard are the designated March JPA truck routes within the study area. Alessandro Boulevard, Cactus Avenue, Elsworth Street, Frederick Street, and Graham Street are also designated truck routes within the City of Moreno Valley.

Transit Service

The study area within the March JPA planning area and the surrounding Cities of Riverside and Moreno Valley are currently served by the Riverside Transit Authority (RTA), a public transit agency serving various jurisdictions within Riverside County. The existing bus routes provided within the area by RTA are shown on Figure 4.15-5. The existing RTA Route 20 provides to service from Alessandro Boulevard to the Moreno Valley March Field Metrolink Station. RTA Route 27 also runs along Orange Terrace Parkway and Van Buren Boulevard to the south of the Project. There is an existing bus stop on Alessandro Boulevard near Brown Street. Transit service is reviewed and updated by RTA periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

The Moreno Valley/March Field Metrolink Station is located on Meridian Parkway approximately 1.2 miles east of the Project site. The Metrolink Perris Valley Line serves the Riverside area, providing access to the City of Perris, Riverside, Anaheim, and downtown Los Angeles. The Perris Valley Line also provides transfer service to the Riverside and Inland Empire – Orange County Metrolink Lines and operates from 4:57 a.m. to 2:05 p.m. in the northbound direction and from 8:35 a.m. to 7:20 p.m. in the southbound direction at this station. There is no weekend or holiday service at the Moreno Valley/March Field Station.

Bicycle and Pedestrian Facilities

Field observations conducted in August 2019 (pre-COVID) showed light pedestrian and bicycle activity within the study area, specifically during the lunch time and afternoon hours when employees utilized sidewalks during breaks. Existing pedestrian facilities within the study area are shown on Figure 4.15-6. Existing sidewalks are currently in place along Cactus Avenue and parts of Barton Street. There are currently Class II bike lanes along Alessandro Boulevard, Cactus Avenue, Meridian Parkway, and Van Buren Boulevard near the Project site. Class II bikeways are bike lanes which are established adjacent to traffic lanes and shared the same roadway.

4.15.2 Methodology

In December 2018, CEQA Guidelines were updated to include a threshold for evaluating traffic impacts using the VMT methodology. This new methodology was required to be used statewide beginning on July 1, 2020. This section summarizes the methodologies used to perform the VMT analysis. The methodologies described are consistent with OPR and WRCOG guidelines and March JPA CEQA Guidelines.

Vehicle Miles Traveled

Beginning July 1, 2020, lead agencies must comply with CEQA Guidelines Section 15064.3, "Determining the Significance of Transportation Impacts". The Updated CEQA Guidelines state that "generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts" and define VMT as "the amount and distance of automobile travel attributable to a project." It should be noted that "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. OPR has clarified in the Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) (Technical Advisory) and recent informational presentations that heavy-duty truck VMT is not required to be included in the estimation of a project's VMT. Other relevant considerations may include the effects of the project on transit and non-motorized traveled.

Based on OPR's Technical Advisory, WRCOG prepared a WRCOG SB 743 Implementation Pathway Document Package (WRCOG 2019) to assist its member agencies with implementation tools necessary to adopt analysis methodology, impact thresholds and mitigation approaches for VMT. To add to the previous work effort, WRCOG, in February 2020, released its Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (WRCOG Guidelines), which provides specific procedures for complying with the new CEQA requirements for VMT analysis (WRCOG 2020).

March JPA has yet to adopt its own VMT analysis guidelines and thresholds. For the purposes of the proposed Project analysis, the recommended VMT analysis methodology and thresholds identified within the Technical Advisory and WRCOG document were used.

Screening for Land Use Projects

The Technical Advisory and WRCOG guidance suggest that agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing. Consistent with OPR's Technical Advisory and WRCOG guidance, projects that meet the screening thresholds based on their location and project type may be presumed to result in a less-than-significant transportation impact. The Project does not meet any of the screening criteria as explained below:

- Screening Threshold for Small Projects (110 daily trips or less): As shown in Table 4.15-1, with the proposed land uses, the Project is anticipated to generate a total of 35,314 daily trips with 1,761 AM peak hour trips and 3,389 PM peak hour trips. Since the Project generates more than 110 trips per day, it cannot be assumed to cause a less-than-significant transportation impact.

- Map Based Screening for Residential and Office Projects: The following map based screening criteria were applied to screen the Project based on the Traffic Analysis Zone the Project site is located within using WRCOG screening tool:[1]
    - The Project site is not within a Transit Priority Area as it is not located within one-half mile of an existing major transit stop or an existing stop along a high quality transit corridor
    - Map based screening for low VMT generating Traffic Analysis Zone was not conducted for the Project because the traffic analysis zone (TAZ) the site is located within does not contain socio-economic data (i.e., population and employment) consistent with the proposed Project. The Technical Advisory states for low VMT map-based screening, the residential and office projects that are located in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT. Some of the Project TAZs did not contain any population or employment, therefore would not accurately represent the proposed Project.
- Presumption of Less Than Significant Impact for Affordable Residential Development: The Project does not propose affordable residential units.

Based on the Technical Advisory and WRCOG's screening tool and screening criteria, the Project requires a detailed Project-level VMT analysis. An assessment of the Project's VMT impact under base year conditions has been conducted using following methodology.

[1] Available at http://gis.fehrandpeers.com/WRCOGVMT/.

Table 4.15-1. Project Trip Generation Summary

Land Use[5]	Quantity Units[1]	AM Peak Hour			PM Peak hour			Weekday	Saturday Peak hour		
		In	*Out*	*Total*	*In*	*Out*	*Total*	*Daily*	*In*	*Out*	*Total*
Building B: High-Cube Fulfillment											
Passenger Cars:	1,250.000 TSF	99	30	129	50	130	180	2,188	5	3	8
Trucks		18	5	23	7	19	26	474	1	0	1
Total Trips[2]		**117**	**35**	**152**	**57**	**149**	**206**	**2,662**	**6**	**3**	**9**
Building C: High-Cube Fulfillment											
Passengers Cars:	587.000 TSF	47	14	61	24	61	85	1,028	2	1	3
Trucks:		9	3	12	3	9	12	222	0	0	0
Total Trips[2]		**56**	**17**	**73**	**27**	**70**	**97**	**1,250**	**2**	**1**	**3**
High-Cube Cold Storage Warehouse:											
Passenger Cars:	5000.000 TSF	38	2	40	10	36	46	686	1	1	2
Trucks		5	11	16	8	8	16	376	0	0	0
Total Trips[2]		**43**	**13**	**56**	**18**	**44**	**62**	**1,062**	**1**	**1**	**2**
Remaining Industrial: High-Cube Fulfillment											
Passenger Cars:	725.561 TSF	58	17	75	29	75	104	1,270	3	2	5
Trucks		11	3	14	4	11	15	276	0	0	0
Total Trips[2]		**69**	**20**	**89**	**33**	**86**	**119**	**1,546**	**3**	**2**	**5**
Business Park [5]	1,280.403 TSF										
Office Passenger Cars:	324.121 TSF	405	75	480	75	366	441	3,228	93	79	172
Office Passenger Cars:	60.000 TSF	95	17	112	19	90	109	744	17	15	32
Business Park Warehouse	896.282 TSF										
Warehouse Passenger Cars:		69	16	85	233	825	1,058	10,640	23	13	36
Warehouse Trucks:		29	7	36	8	28	36	512	6	3	9
Business Park[5] (Mixed-Use, 75%)	482.765 TSF										
Office Passenger Cars:	144.830 TSF	203	36	239	39	187	226	1,602	41	35	76
Business Park Warehouse	337.936 TSF										
Warehouse Passenger Cars:		26	6	32	88	311	399	4,012	9	5	14
Warehouse Trucks:		11	3	14	3	11	14	194	2	1	3
Total Business Park Trips:		**838**	**160**	**998**	**465**	**1,818**	**2,283**	**20,932**	**191**	**151**	**342**

Table 4.15-1. Project Trip Generation Summary

Land Use[5]	Quantity Units[1]	AM Peak Hour			PM Peak hour			Weekday	Saturday Peak hour		
		In	*Out*	*Total*	*In*	*Out*	*Total*	*Daily*	*In*	*Out*	*Total*
Retail (Mixed-Use, 25%)											
Passenger Cars:	160.921 TSF	173	106	279	409	426	835	10,866	760	730	1,490
Pass-by Reduction (AM: 0%; PM/Daily: 40%)[4]		0	0	0	-164	-164	-327	-4,348	-304	-292	-596
Total Retail Trips		**173**	**106**	**279**	**245**	**262**	**508**	**6,518**	**456**	**438**	**894**
Active Park	42.20 AC	137	137	274	95	95	190	2,110	187	203	390
Public Park	18.08 AC	6	6	12	4	4	8	90	19	20	39
Total Park Trips		**143**	**143**	**286**	**99**	**99**	**198**	**2,200**	**206**	**223**	**429**
Total Passenger Cars		1,356	462	1,818	911	2,442	3,354	34,116	856	815	1,671
Internal Trip Reduction[3]		-86	-86	-172	-42	-42	-84	-856	-21	-21	-42
Total Trucks		83	32	115	33	86	119	2,054	9	4	13
Project Total Trips		**1,353**	**408**	**1,761**	**902**	**2,486**	**3,389**	**35,314**	**844**	**798**	**1,642**

Notes:

1 TSF = thousand square feet; AC = Acres

2 Total Trips = Passenger Cars + Truck Trips

3 Internal trip reduction based on NCHRP 684 Internal Trip Capture Estimation Tool for the passenger car trips and commercial retail

4 Pass-by reduction percentage source: ITE Trip Generation Manual 2021 Pass-By Data and Rate Tables

5 2-axle trucks have been evaluated as trucks as opposed to delivery vans or passenger cars

Methodology for VMT Estimation

As outlined in the Technical Advisory, mixed-use projects such as the proposed Project need to evaluate each component of the Project independently and apply the relevant significance threshold for each Project type (e.g., office, retail). As an alternative, a lead agency may choose to evaluate the Project's dominant use. For the purposes of proposed Project's VMT analysis, the dominant uses retail and non-retail (i.e., employment uses such as office, business park, and non-retail mixed use) were considered.

For large projects such as the proposed Project, model-based approach (tour- or trip- based travel demand models) offer the best methods for assessing VMT and for comparing those assessments to VMT thresholds. WRCOG Guidelines identifies Riverside County Transportation Demand Model (RIVCOM) as the appropriate tool for conducting VMT analysis for land development projects in the March JPA planning area. WRCOG is the developer/owner of RIVCOM and recently launched the new modeling tool for use by its member agencies in August 2021. The Project's VMT analysis was prepared using the latest available version of model, i.e., RIVCOM Version 3.0. The RIVCOM is a trip-based model that has been developed using Southern California Association of Governments (SCAG) Sub-Regional Model Development Tool.

As stated in the Technical Advisory, "Lead agencies can evaluate each component of a mixed-use project independently and apply the significance threshold for each project type included (e.g., residential and retail)." Consistent with OPR's direction in the Technical Advisory, the VMT metric for retail projects greater than 50,000 sf of gross leasable area is to utilize the metric of net change in total VMT. Therefore, for purposes of this analysis, a significant impact to VMT would occur if the addition of the Project's retail component would result in a net increase in total VMT for the region. For purposes of the Project's VMT analysis, the region is defined as a 15-mile service area from the Project site. A 15-mile service area is a conservatively estimated distance from the Project as the retail component is not anticipated as a regional shopping destination but instead is anticipated to serve the surrounding communities of Riverside, Moreno Valley, Perris, etc. Additionally, large boundaries such as Riverside County or WRCOG tend to be too large of an area to accurately measure an individual project's effect on VMT without model noise (i.e., convergence criteria) influencing the results.

For projects that are not residential or retail land use types, the Technical Advisory identifies VMT per employee as the appropriate VMT metric for analysis. Therefore, the Project's industrial, business park, and non-retail mixed use land uses were evaluated based on the metric of VMT per employee. A significant impact to VMT would occur if the addition of the Project's industrial/business park/non-retail mixed use components would result in Project-generated VMT per employee to exceed 15% below the WRCOG's baseline VMT.

4.15.3 Relevant Plans, Policies, and Ordinances

The following section describes regulations, plans, policies, and ordinances relevant to the study area, including the newly implemented Vehicle Miles Traveled metric for determination of significant impact. State, regional, and local regulations are described. There are no traffic-specific federal regulations applicable to the Project.

State

Senate Bill 743

On September 27, 2013, Governor Brown signed SB 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under the CEQA process for several categories of development projects

including the development of infill projects in transit priority areas and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. SB 743 adds Chapter 2.7: Modernization of Transportation Analysis for Transit Oriented Infill Projects to the CEQA Statute (California Public Resources Code Section 21099). Section 21099(d)(1) provides that aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. In addition, SB 743 mandates that alternative metric(s) for determining impacts relative to transportation shall be developed to replace the use of LOS in CEQA documents.

In the past, environmental review of transportation impacts focused on the delay that vehicles experience at intersections and on roadway segments, which is often measured using LOS. Mitigation for impacts on vehicular delay often involves increasing capacity such as widening a roadway or the size of an intersection, which in turn encourages more vehicular travel and greater pollutant emissions. Additionally, improvements to increase vehicular capacity can often discourage alternative forms of transportation such as biking and walking. SB 743 directed the OPR to develop an alternative metric(s) for analyzing transportation impacts in CEQA document. The alternative shall promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of multimodal transportation system, and providing clean, efficient access to destinations. Under SB 743, it was anticipated that the focus of transportation analysis will shift from vehicle delay to VMT within transit-priority areas (i.e., areas well served by transit).

Pursuant to SB 743, OPR released the draft revised CEQA Guidelines in November 2017, recommending the use of VMT for analyzing transportation impacts. Additionally, OPR released Updates to Technical Advisory on Evaluating Transportation Impacts in CEQA, to provide guidance on VMT analysis. In this Technical Advisory, OPR provides its recommendations to assist lead agencies in screening out projects from VMT analysis and selecting a significance threshold that may be appropriate for their particular 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. This new methodology is required to be used for projects beginning on July 1, 2020.

CEQA Guidelines Section 15064.3(b) is divided into four subdivisions as follows:

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project.

The Project is a land use development, therefore 15064.3(b)(1) would apply and transportation impacts have been assessed using the VMT metric.

Sustainable Communities Strategies: Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the state's climate action goals to reduce greenhouse gas emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, the California Air Resources Board (CARB) sets regional targets for greenhouse gas emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the state's metropolitan planning organizations (MPOs). CARB will periodically review and update the targets, as needed.

Each of California's MPOs must prepare a Sustainable Communities Strategy (SCS) as an integral part of its Regional Transportation Plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its greenhouse gas emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional greenhouse gas targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate alternative planning strategy to meet the targets. The alternative planning strategy is not a part of the RTP.

The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the SCS or the alternative planning strategy. Developers can get relief from certain CEQA requirements if their new residential and mixed-use Projects are consistent with a region's SCS (or alternative planning strategy) that meets the targets (see California Public Resources Code Sections 21155, 21155.1, 21155.2, 21159.28.).

Caltrans

Caltrans Transportation Impact Study Guide, May 20, 2020, has replaced the 2002 Guide for the Preparation of Traffic Impact Studies. Per the 2020 Transportation Impact Study Guide, Caltrans' primary review focus is VMT, replacing LOS as the metric used in CEQA transportation analyses (Caltrans 2020b). Caltrans recommends use of OPR's recommended thresholds and guidance on methods of VMT assessment found in OPR's Technical Advisory (OPR 2018) for land use projects. In addition to VMT, the 2020 Transportation Impact Study Guide states that it

may request a targeted operational and safety analysis to address a specific geometric or operational issue related to the state highway system and connections with the state highway system.

Regional

Southern California Association of Governments

SCAG develops the RTP, which presents the transportation vision for Los Angeles, Orange, San Bernardino, Imperial, Riverside, and Ventura Counties. SB 375 was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. Under the law, SCAG is tasked with developing an SCS, an element of the RTP that provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board.

The RTP/SCS identified priorities for transportation planning within the Southern California region, sets goals and policies, and identifies performance measures for transportation improvements to ensure that future Projects are consistent with other planning goals for the area (SCAG 2020). The Federal Transportation Improvement Plan (FTIP), also prepared by SCAG based on the RTP, lists all of multimodal transportation projects proposed over a six- year period. To qualify for CEQA streamlining benefits under SB 375, a project must be consistent with the RTP/SCS. On September 3, 2020, SCAG's Regional Council adopted Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy) which replaced the RTP/SCS 2016.

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. It 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 (SCAG 2020).

County of Riverside Congestion Management Program

The passage of Proposition 111 in June 1990 established a process for each metropolitan county in California that has an urbanized area with a population over 50,000 (which would include the County of Riverside) to prepare a CMP. Additionally, the passage of Proposition 111 provided additional transportation funding through a $0.09 per gallon increase in the state gas tax. The Riverside County Transportation Commission was designated as the Congestion Management Agency in 1990, and therefore, prepares the CMP updates.

Although implementation of the CMP was made voluntary by the passage of Assembly Bill 2419, the CMP requirement has been retained in all five urbanized counties within the SCAG region. In addition to their value as a transportation management tool, CMPs have been retained in these counties because of the federal Congestion Management System requirement that applies to all large, urban areas that are not in attainment of federal air quality standards. These counties recognize that the CMP provides a mechanism through which locally implemented programs can fulfill most aspects of a regional requirement that would otherwise have to be addressed by the regional agency (for the County of Riverside, SCAG).

The CMP is prepared by the Riverside County Transportation Commission and developed in consultation with the county and cities in Riverside County and is an effort to more directly align land use, transportation, and air quality management efforts and to promote reasonable growth management programs that effectively use statewide transportation funds while ensuring that new development pays its fair share of needed transportation improvements (RCTC 2011).

Per the CMP-adopted LOS standard of E, when a CMP facility falls to LOS F, a deficiency plan is required. Preparation of a deficiency plan would be the responsibility of the local agency where the deficiency is located. Other agencies identified as contributors to the deficiency would also be required to coordinate with the development of the plan. The plan must contain mitigation measures, including transportation demand management strategies and transit alternatives, and a schedule of mitigating the deficiency. To ensure that the Congestion Management System is appropriately monitored to reduce the occurrence of CMP deficiencies, it is the responsibility of local agencies, when reviewing and approving development proposals, to consider the traffic deficiencies on the Congestion Management System.

The CMP was most recently updated in 2019 as part of the Riverside County Long Range Transportation Study. However, there are no study area intersections in the Project's TA that are identified as a Riverside County CMP intersection.

Transportation Uniform Mitigation Fee

WRCOG is responsible for establishing and updating the Transportation Uniform Mitigation Fee (TUMF) program. TUMF is a multijurisdictional impact fee program that funds transportation improvements on a regional and sub-regional basis associated with new growth. All new development in each of the participating jurisdictions is subject to TUMF, based on the proposed intensity and type of development. TUMFs are submitted by the applicant and are passed on to WRCOG as the ultimate program administrator. TUMF funds are distributed on a formula basis to the regional, local, and transit components of the program. March JPA participates in the TUMF program.

The TUMF program is based upon a regional Nexus Study completed in early 2003 and updated in 2016 to address major changes in right-of-way acquisition and improvement cost factors. TUMF identifies a network of backbone and local roadways that are needed to accommodate growth through 2040. This regional program was put into place to ensure that development pays its fair share and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region. TUMFs and other applicable fair-share contributions are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected vehicle trip increases.

A few of the facilities where the Project is anticipated to be cumulatively contribute to operational deficiencies are planned for improvements through the TUMF Program. The Project Applicant will be subject to the TUMF program and will pay the requisite TUMF at the rates then in effect. The Project Applicant's payment of the requisite TUMF at the rates then in effect pursuant to the TUMF Program will mitigate its contribution to deficiencies to TUMF-funded facilities.

Local

March Joint Powers Authority

Based on the March JPA Traffic Impact Study Preparation Guide (March JPA 2020), all intersections and roadway segments within the March JPA planning area shall operate at LOS D or better with limiting circumstances of LOS E to occur. LOS E may also be allowed to the extent that would support transit-oriented development and walkable communities. A lower LOS in transit-oriented development environments encourages people to shift from dependency on single occupancy vehicles to use of public transit and other modes of transportation. This is acceptable in transit-oriented development environments because alternative modes of transportation are readily accessible and are more convenient than in non- transit-oriented development land use environments. LOS E is

also acceptable during peak hours at interchange ramp intersections where ramp metering occurs. The Project is not proposed to be a transit-oriented development and neither the Alessandro Boulevard nor Cactus Avenue on-ramps are currently metered; as such, for informational purposes, the minimum LOS is LOS D.

March Joint Powers Authority General Plan

The Transportation Element of the March JPA General Plan includes goals and policies related to transportation. The following goals and polices are from the March JPA General Plan that apply to the Project (March JPA 1999).

Goal 2: Build and maintain a transportation system which capitalizes on the multi-faceted elements of transportation planning and systems, designed to meet the needs of the planning area while minimizing negative effects on air quality, the environment and adjacent land uses and jurisdictions.

Policy 2.1: March JPA shall balance the need for free traffic flow with economic realities and environmental and aesthetic consideration, such that transportation facilities are capable of normal patterns and volume, with tolerance of peak and high level usage with minimal disruption, delays or impacts.

Policy 2.6: FAA standards, military AICUZ, and appropriate Comprehensive Land Use Plan for March Airfield shall be upheld and supported to encourage and realize a safe environment in and around the aviation field.

Policy 2.7: On-street parking shall be de-emphasized throughout the planning area to permit maximum capacity of roadways to be actuated by vehicular and bicycle transportation modes.

Goal 3: Develop a transportation system that is safe, convenient, efficient and provides adequate capacity to meet local and regional demands.

Policy 3.5: Driveway entrances onto surrounding arterial highways, major and minor arterials streets should be redistricted when practical, and through traffic on interior streets should be minimized.

Goal 4: Provide a balanced transportation system that ensures the safe and efficient movement of people and good throughout the planning area, while minimizing the use of land for transportation facilities.

Policy 4.3: Arterial roads should carry both local and through traffic and be planned and improved to maintain a Level of Service “D” or better with limiting circumstances of Level of Service “E” to occur.

Policy 4.4: Through traffic planning, measures should be implemented to alleviate direct impacts to adjoining jurisdictions which decrease roadway function Level of Service below the jurisdiction’s adopted accepted Level of Service, as appropriate.

Policy 4.5: Require the dedication and improvement of arterial roadways prior to the issuance of certificates of occupancy.

Goal 6: Establish vehicular access control policies in order to maintain and insure the effectiveness and capacity of arterial roadways.

Policy 6.1: To the extent possible, access shall be provided on local or collector streets where the frontage is available on both local and arterials streets.

Policy 6.2: Access to an arterial road shall be limited to one point for every 300 feet of frontage or one point for parcels with less than 300 feet of frontage.

Policy 6.4: For corner lots, whenever possible, vehicular access points on arterial roadways shall be located a minimum of 300 feet from the centerline of the intersection.

Policy 8.8: Require the installation of bus improvements such as bus turnouts, bus stops, and terminals as part of the conditions of development for employment centers and land uses that attract large numbers of persons, where appropriate.

Goal 9: Develop measures which will reduce the number of vehicle miles traveled during peak travel periods.

Goal 10: Regulate the travel of trucks on March JPA Planning Area streets.

Policy 10.1: Establish a truck route system which designates truck commercial vehicle routes and provides adequately sized and designated roadways to meet the needs of trucks and commercial vehicles. This will eliminate truck and commercial vehicle traffic through inappropriate areas of the March JPA Planning Area.

Goal 12: Plan for and seek to establish an area-wide system of bicycling trails, with linkages within the planning area and with adjacent jurisdictions, and in compliance with sub-regional plans.

Policy 12.5: Provide adequate right-of-way and improvements for bike lanes in accordance with the Transportation Plan.

Policy 12.7: Require sidewalks on both sides of all streets. The March JPA encourages alternate designs including parkways and meandering and enhanced paving.

Goal 15: In accordance with state and federal law, promote and provide mobility for the disabled.

Policy 15.1: Require that all development comply with the requirements of the state and federal law for the disabled. Requirements may include ramps at street corners, access to public buildings, traffic signal timing and the like.

City of Riverside

The City of Riverside General Plan states the City of Riverside will strive to maintain LOS D or better on arterial streets wherever possible (City of Riverside 2007). At some key locations, such as City arterial roadways, which are used as freeway bypass by regional through traffic and at heavily traveled freeway intersections, LOS E may be acceptable as determined on a case-by-case basis. These situations may include roadways where capacity expansion is not feasible or would not mitigate the congestion. Locations that may warrant the LOS E standard include portions of Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard throughout the City of

Riverside, portions of La Sierra Avenue, and selected freeway interchanges. However, the General Plan does not specify which portions of these roadways segments are acceptable to operate at LOS E. A higher standard, such as LOS C or better, may be adopted for Local and Collector streets in residential areas. The City of Riverside recognizes that along key freeway feeder segments during peak commute hours, LOS F may be expected due to regional travel patterns.

For informational purposes, LOS D was used as the standard as it is consistent with the policies and practices in other cities and the March JPA planning area, and it is the highest standard applicable to non-residential areas.

City of Riverside General Plan

The Circulation Element of the City of Riverside General Plan includes goals and policies that apply to the Project related to transportation (City of Riverside 2007).

Policy CCM-2.3: Maintain LOS D or better on Arterial Streets wherever possible. At key locations, such as City Arterials that are used by regional freeway bypass traffic and at heavily traveled freeway interchanges, allow LOS E at peak hours as the acceptable standard on a case-by-case basis.

Policy CCM-2.7: Limit driveway and local street access on Arterial Streets to maintain a desired quality of traffic flow. Wherever possible, consolidate driveways and implement access controls during redevelopment of adjacent parcels. Policy CCM-5.7 Work with Riverside County and as a member of the March Joint Powers Authority to ensure adequate circulation within the JPA jurisdictional area and around Riverside National Cemetery.

County of Riverside General Plan

The Circulation Element of the County of Riverside General Plan includes policies related to traffic that require County facilities to maintain LOS C, except in certain Area Plans and Community Development Areas where LOS D is the standard that should be maintained. Intersections in the study area that fall under County of Riverside jurisdiction are within the Community Development Areas of Mead Valley and Lake Mathews/Woodcrest. These Community Development Areas are required to maintain the LOS standard of D (County of Riverside 2016). As such, for informational purposes, LOS D is used as the standard for intersections located under the jurisdiction of the County.

Policy C 2.1: The following minimum target levels of service have been designated for the review of development proposals in the unincorporated areas of Riverside County with respect to transportation impacts on roadways designated in the Riverside County Circulation Plan (Figure C-1) which are currently County maintained, or are intended to be accepted into the County maintained roadway system:

LOS C shall apply to all development proposals in any area of the Riverside County not located within the boundaries of an Area Plan, as well those areas located within the following Area Plans: REMAP, Eastern Coachella Valley, Desert Center, Palo Verde Valley, and those non- Community Development areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.

LOS D shall apply to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/ Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans. LOS E may be allowed by the Board of Supervisors within designated areas where transit-oriented development and walkable communities are proposed.

Notwithstanding the forgoing minimum LOS targets, the Board of Supervisors may, on occasion by virtue of their discretionary powers, approve a Project that fails to meet these LOS targets in order to balance congestion management considerations in relation to benefits, environmental impacts and costs, provided an Environmental Impact Report, or equivalent, has been completed to fully evaluate the impacts of such approval. Any such approval must incorporate all feasible mitigation measures, make specific findings to support the decision, and adopt a statement of overriding considerations. (Action Item (AI)3)

Policy C 2.2: Require that new development prepare a traffic impact analysis as warranted by the Riverside County Traffic Impact Analysis Preparation Guidelines or as approved by the Director of Transportation. Apply level of service targets to new development per the Riverside County Traffic Impact Analysis Preparation Guidelines to evaluate traffic impacts and identify appropriate mitigation measures for new development. (AI 3)

Policy C 2.3: Traffic studies prepared for development entitlements (tracts, public use permits, conditional use permits, etc.) shall identify Project related traffic impacts and determine the significance of such impacts in compliance with CEQA and the Riverside County Congestion Management Program Requirements. (AI 3)

Policy C 2.4: The direct Project related traffic impacts of new development proposals shall be mitigated via conditions of approval requiring the construction of any improvements identified as necessary to meet level of service targets.

Policy C 2.5: The cumulative and indirect traffic impacts of development may be mitigated through the payment of various impact mitigation fees such as County Development Impact Fees, Road and Bridge Benefit District Fees, and Transportation Uniform Mitigation Fees to the extent that these programs provide funding for the improvement of facilities impacted by development.

Policy C 3.4: Allow roundabouts or other innovative design solutions such as triple left turn lanes, continuous flow intersections, or other capacity improvements, when a thorough traffic impact assessment has been conducted demonstrating that such an intersection design alternative would manage traffic flow, and improve safety, if it is physically and economically feasible.

Policy C 3.6: Require private developers to be primarily responsible for the improvement of streets and highways that serve as access to developing commercial, industrial, and residential areas. These may include road construction or widening, installation of turning lanes and traffic signals, and the improvement of any drainage facility or other auxiliary facility necessary for the safe and efficient movement of traffic or the protection of road facilities.

Policy C 3.8: Restrict heavy duty truck through-traffic in residential and community center areas and plan land uses so that trucks do not need to traverse these areas.

Policy C 3.10: Require private and public land developments to provide all on-site auxiliary facility improvements necessary to mitigate any development-generated circulation impacts. A review of each proposed land development Project shall be undertaken to identify Project impacts to the circulation system and its auxiliary facilities. The Transportation Department may require developers and/or subdividers to provide traffic impact studies prepared by qualified professionals to identify the impacts of a development.

Policy C 7.1: Work with incorporated cities to mitigate the cumulative impacts of incorporated and unincorporated development on the transportation system. (AI 2, 49, 50, 53)

Policy C 7.8: Collaborate with all incorporated cities and all adjacent counties to implement and integrate right-of-way requirements and improvement standards for General Plan roads that cross jurisdictional boundaries. Detailed procedures have been developed and include the following:

c. Transition areas at meeting points of roadways designed to differing city and Riverside County standards or differing functional classifications should be individually designed to facilitate satisfactory operational and safety performance. Further, Riverside County should update the road standards to reflect the intent of this policy and standards agreed upon by the County of Riverside and other local agencies. (AI 4, 50)

4.15.4 Project Design Features

PDF-TRA-1 As part of the Project, the following on-site and site-adjacent roadway improvements will be constructed to accommodate site access.

Airman Drive and Cactus Avenue:

- Install a traffic signal.
- Construct a northbound shared through and -right turn lane (225 feet of storage).
- Construct dual southbound left turn lanes (225-feet of storage) and a through lane.
- Construct a westbound left turn lane (300-feet of storage) and a right turn lane.

Linebacker Drive and Cactus Avenue:

- Install a traffic signal.
- Construct the northbound approach with a left turn lane (200-feet of storage), through lane, and right turn lane (250-feet) with overlap phasing.
- Construct the southbound approach with dual left turn lanes (325-feet of storage) and shared through-right turn lane.
- Construct eastbound approach with one left turn lane (200-feet of storage), one through lane, and one shared through-right turn lane.
- Construct westbound approach with one left turn lane (300-feet of storage), one through lane, and one right turn lane (trap lane, no pocket length).

Brown Street and Cactus Avenue:

- Install a traffic signal.
- Construct the southbound approach with a shared left-right turn lane.
- Construct the eastbound approach with a left turn lane (two-way-left-turn lane) and two through lanes.
- Construct the westbound approach with a through lane and shared through-right turn lane.

Cactus Avenue:

- Construct Cactus Avenue at its ultimate full-section width as a Modified Secondary Highway (98-foot right-of-way, 76-foot curb-to-curb) between Linebacker Drive and the existing terminus west of Meridian Parkway. The right-of-way will accommodate 6-foot sidewalks and 4.5-feet of parkway on both sides along with a 5-foot bike lane, landscaped median and two traveled lanes in each direction. The West Campus Upper Plateau roadway cross-sections are shown on Exhibit 1-5 of the TA.
- Construct Cactus Avenue at its ultimate full-section width as a Modified Industrial Collector (76-foot right-of-way, 54-foot curb-to-curb) west of Linebacker Drive to Airman Drive. The right-of-way will accommodate 5-foot detached sidewalks on both sides along with a 5-foot bike lane and a single traveled lane in each direction (of 16-feet) separated by a 12-foot striped median.
- Construct a gated emergency access only connection between the terminus of Cactus Avenue at Airman Drive and Barton Street.

Barton Street:

- Construct Barton Street at its ultimate full-section width as a Collector (66-foot right-of-way, 40-foot curb-to-curb) from the existing northerly and southerly termini consistent with the City of Riverside's Circulation Element. Once completed, the roadway will provide a connection between the existing Mission Grove community to the north and Orangecrest community to the south. The right-of-way will accommodate 6-foot sidewalks on the east side with 10-foot multipurpose trail and 5-feet of landscape on the other side along with a 5-foot bike lane and a single traveled lane in each direction (of 14.5-feet). The

multipurpose trail will only be accommodated for portions of Barton Street adjacent to the open space/parks. Sidewalk improvements will extend to the intersection of Grove Community Drive and Barton Street and bike racks and bike lockers will be provided near the entrance of the Park.

Brown Street:

- Construct Brown Street at its ultimate full-section width as an Industrial Collector (78-foot right-of-way, 56-foot curb-to-curb) between the existing northerly terminus and Cactus Avenue. The right-of-way will accommodate 6-foot sidewalks on both sides along with a 5-foot bike lane and a single traveled lane in each direction (of 17-feet) separated by a 12-foot striped median.

Internal Streets (Linebacker Drive, Airman Drive, Bunker Hill Drive, and Arclight Drive):

- Construct these roadways at their ultimate full-section width as an Industrial Collector (76-foot right-of-way, 54-foot curb-to-curb). The right-of-way will accommodate 6-foot sidewalks on both sides along with a 5-foot bike lane and a single traveled lane in each direction (of 16-feet) separated by a 12-foot striped median.

PDF-TRA-2 The Project will amend the existing March JPA truck routes along Brown Street to Cactus Avenue, and Cactus Avenue west from Meridian Parkway. Internal Project roadways of Linebacker Drive, Arclight Drive, Bunker Hill Drive, and Airman Drive will also be truck routes. No truck access is permitted along Barton Street.

PDF-TRA-3 **Truck Route Enforcement Program**
To address trucks turning left from Cactus Avenue onto Brown Street or otherwise violating the established truck routes, the Project applicant shall provide the March Joint Powers Authority compensation of $100,000 to fund a truck route enforcement for a period of two years.

PDF-TRA-4 **Payment of Fair Share Cost**
To address operational deficiencies at off-site intersections, the Project shall contribute $321,799 as its fair share towards the improvement measures provided in the Table 1-4, Summary of Improvements and Rough Order of Magnitude Costs, of the TA (Appendix N).

4.15.5 Thresholds of Significance

The following significance criteria are based on the March JPA 2022 CEQA Guidelines (14 CCR 15000 et seq.) and will be used to determine the significance of potential traffic and circulation impacts. Through the analysis in the Initial Study (see Appendix A), it was determined that the proposed Project would not result in inadequate emergency access. Accordingly, this issue is not further analyzed in this Draft EIR. Based on the remaining thresholds, impacts to transportation would be significant if the Project would (March JPA 2022):

TRA-1: Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

TRA-2: Conflict or be inconsistent with the CEQA Guidelines Section 15064.3, subdivision (b).

TRA-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses.

VMT Impact Thresholds

The updated CEQA Guidelines themselves do not establish a significance threshold and the OPR's Technical Advisory recommends a threshold of significance for residential, office, retail and other land uses. While OPR's recommended threshold for per capita or per employee for residential or office projects, respectively, is 15% below that of existing development, lead agencies can use more location-specific information to develop their own specific threshold for other project/land use types. The proposed Project would be considered a mix of retail, office, business park, medical, , research and development, and services. March JPA has yet to adopt its own VMT analysis guidelines and thresholds. However, the recommended VMT analysis methodology and thresholds identified within the Technical Advisory and WRCOG Guidelines have been used to analyze Project's impacts. Further, consistency with regional transportation plan is required for all land use projects.

- Consistent with OPR's direction in the Technical Advisory, the VMT metric for retail projects greater than 50,000 sf of gross leasable area is to utilize the metric of net change in total VMT. Therefore, for purposes of this analysis, a significant impact to VMT would occur if the addition of the Project's retail component would result in a net increase in total VMT for the region. For purposes of Project's VMT analysis, the region is defined as a 15-mile service area from the Project site.
- A significant impact to VMT would occur if the addition of the Project's industrial/business park/non-retail mixed use components would result in Project-generated VMT per employee to exceed 15% below the WRCOG's baseline of 29.97 VMT per employee for a regional average significance threshold of 25.47 VMT per employee. The baseline of 29.97 VMT per employee was established by the traffic consultant using the RIVCOM travel demand model run for the region and the proposed Project.

Per Technical Advisory, for cumulative or long-term VMT impact threshold, "a project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impacts that utilize plan compliance as a threshold of significance."

Caltrans Facilities Impact Threshold

The Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance, December 2020, applies to proposed land use projects and plans affecting the state highway system (Caltrans 2020a). The intent of the Interim Safety Review is to provide an outline for when queuing should be reviewed for traffic safety impacts. A review does not necessitate the need for traffic safety mitigation but evaluates whether a significant safety impact based on speed differential would occur, and then the significance of that traffic safety impact by the project must be determined on a case-by-case basis.

Per Appendix A, Freeway Queuing Analysis, of the Caltrans guide, to review a location for traffic safety impacts, following criteria can be used (Caltrans 2020a).

If the Project adds two or more car lengths to the ramp queue in the peak hour that will extend into the freeway mainline, then the location must be reviewed for traffic safety impacts which include a review for speed differential

between the off-ramp queue and the mainline of the freeway during the same peak hour. Additionally, Caltrans review of site design for access management for projects near the state highway system could include the following:

- Sight distance constraints caused by placement of a driveway.
- Driveway or intersection spacing.
- Queuing onto roadways caused by project access design features such as driveway placement near ramp intersections or missing left turn pockets.
- Multimodal conflict points caused by turning vehicles.
- Pedestrian and bicycle connections from the state highway to the entrance(s) of the new land use that are incomplete.

4.15.6 Impacts Analysis

Threshold TRA-1. ***Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?***

Specific Plan Area (Campus Development, Park, Infrastructure Improvements)

Construction

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Specific Plan Area also includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multi-use sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The Specific Plan Area also includes installation of utility and roadway networks connecting to and throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank.

Construction of the Specific Plan Area is expected to commence in June 2023 and would last through October 2027. Construction activities are permitted to occur up to 12 hours per day pursuant to the March JPA's Development Code and would occur between 7:00 a.m. and 7:00 p.m. Traffic operations during the proposed construction phase may potentially result in short-term traffic deficiencies related to construction employees and import of construction materials. It is anticipated that the following construction-related activities would generate traffic and may potentially result in temporary construction-related traffic deficiencies that could result in a significant impact to the circulation system:

- Construction employee commutes;
- Import of construction materials; and
- Transport and use of heavy construction equipment.

To minimize the impact of construction activities to the circulation system, **Mitigation Measure (MM) TRA-1** would require the Project applicant to develop and implement a March JPA-approved Construction Traffic Management Plan addressing potential construction-related traffic detours and disruptions to ensure that to the extent practical,

construction traffic would access the Project site during off-peak hours; and that construction traffic would be routed to avoid travel through, or proximate to, sensitive land uses. With the implementation of **MM-TRA-1**, short term construction impacts to the circulation system would be **less than significant with mitigation incorporated**.

Operations

The Specific Plan Area would be accessed through the extension of existing streets that have been planned in the March JPA General Plan or the City of Riverside General Plan. Access to the Campus Development would be provided from the east via Cactus Avenue, which would be extended to the west from its current western terminus through the site to Airman Drive. Per **PDF-TRA-1**, Cactus Avenue will be constructed to its ultimate cross-section as a Modified Industrial Collector (with single travel lane in each direction) west of Linebacker Drive to Airman Drive and as a Modified Secondary Highway (with two travel lanes in each direction) between Linebacker Drive and the existing terminus west of Meridian Parkway. The Park would be accessed from the north and south by extending Barton Street to connect from Alessandro Boulevard in the north to Grove Community Drive in the south; the Campus Development would not have vehicular access to Barton Street. Access to the Campus Development from the north would be via Brown Street, which would be extended south to connect from Alessandro Boulevard to the new extension of Cactus Avenue. The Project would construct several on-site roadways and intersections improvements that would extend into adjacent roadways. The Project is anticipated to complete the connection of Barton Street between the existing northerly and southerly termini with a 66-foot right-of-way and 40-foot curb-to-curb pavement width consistent with the City of Riverside's Circulation Element. At the request of City of Riverside staff during the scoping process, traffic calming measures were reviewed for Barton Street. To address potential speeding and pedestrian safety, **MM-TRA-2** would require the Project applicant to develop and implement a Barton Street Traffic Safety Plan with appropriate traffic calming measures such as raised crosswalks/sidewalk extensions, raised intersections, chicane, center line and curb adjustment, roundabouts and lane narrowing supplemented with speed activated speed limit signs/warning signs, additional signage, flashing beacons, approved by the March JPA Civil Engineer, in compliance with a three-party memorandum of understanding mitigation executed by the City of Riverside, March JPA, and Meridian Park LLC.

As recently amended by Resolution JPA#21-02, the current March JPA General Plan Truck Route Map is shown on Figure 4.15-4. Per **PDF-TRA-2**, additional truck routes are proposed along the Cactus Avenue extension to I-215, as well as along Linebacker Drive, Arclight Drive, Airman Drive, and Bunker Hill Drive. All trucks and passenger vehicles from the Campus Development would be prohibited along the Barton Street extension by providing only an emergency vehicle access roadway, with gated access, to provide an emergency connection between Barton Street and Cactus Avenue. Currently, trucks cannot turn left from northbound Brown Street to access Alessandro Boulevard due to existing channelization that has been installed. Similar channelization and/or signage will be installed on Cactus Avenue to prevent trucks from turning left onto Brown Street. Therefore, trucks leaving the Campus Development would travel to Meridian Parkway and would not use Brown Street. To enforce the utilization of the approved truck routes, **PDF-TRA-3** directs the Project applicant to provide the March JPA with compensation of $100,000 to fund a truck route enforcement for a period of two years . With implementation of **PDF-TRA-1**, **PDF-TRA-2, PDF-TRA-3, PDF-TRA-4, and MM-TRA-2**, , operational impacts to the circulation system would be **less than significant with mitigation incorporated.**

The Specific Plan Area's proposed roadway network includes Class II (on-street, striped) bike lanes along all roadways, a 10-foot-wide multipurpose trail along the western side of Barton Street fronting the open space and the Park, and recreational trails. Recreational trails would be retained and maintained within the open space areas of the Specific Plan Area. In conjunction with the 5-foot bike lanes on all Specific Plan Area roadways, there would also be 6-foot sidewalks to promote walkability. All these connections within the Specific Plan Area would enhance

connectivity to the existing Metrolink Station approximately 1.2-miles to the east on Meridian Parkway and travel to and from recreational amenities within the Project from other surrounding existing residential developments in close proximity to the Project. Sidewalks and bike lanes would provide direct access to the proposed Specific Plan Area uses.

All the above-mentioned improvements would enhance public transit, roadway, bicycle, or pedestrian facilities. The Project would not include any improvements that would interfere with the construction of pedestrian or bicycle facilities in the future. Therefore, **no impacts** to alternative transportation facilities would occur, and no mitigation measures are required.

Regional Transportation Plan/Sustainable Communities Strategy Consistency Analysis

SCAG's Connect SoCal (2020–2045 RTP/SCS) was adopted on September 3, 2020. Connect SoCal incorporates local land use projections and circulation networks in city and county general plans. Typically, a project would be consistent with Connect SoCal if a project does not exceed the underlying growth assumptions within Connect SoCal. The proposed Project is of Statewide, Regional, or Areawide Significance, as defined in Section 15206(b)(1) of the CEQA Guidelines because a General Plan Amendment is proposed. As discussed in Section 4.12, Population and Housing, the development of the Specific Plan Area would result in approximately 2,600 employees, which would represent approximately 0.32% of the Riverside County's existing labor force and 0.93%[2] of SCAG's 2045 employment projections for Riverside County. This indicates that the Specific Plan would not outpace regional infrastructure, since Connect SoCal is used for local and regional planning purposes. Furthermore, as demonstrated in Table 4.15-2, the Project would not conflict with the goals of Connect SoCal. The major goals of SCAG's Connect SoCal are outlined in Table 4.15-2 along with the Project's consistency analysis with each goal (SCAG 2020).

Table 4.15-2. Project Consistency with the SCAG Connect SoCal RTP/SCS

RTP/SCS Measure	Proposed Project Consistency
Encourage regional economic prosperity and global competitiveness.	**Consistent**. The Specific Plan Area is anticipated to generate approximately 2,600 full-time employees, which is assumed to be filled by existing residents of the County (see Section 4.12, Population and Housing, of this EIR). As such, the Specific Plan would contribute nominally to the slightly above jobs-rich existing and future conditions of Riverside County. Thus, Riverside County would maintain a relatively balanced jobs-housing ratio with the implementation of the Project. Additionally, the Project would provide annual economic contribution to the Riverside County region.
Improve mobility, accessibility, reliability, and travel safety for people and goods.	**Consistent**. The Specific Plan Area would incorporate designated truck routes for proposed operations (as shown in Figure 3-6, Proposed Truck Routes) consistent with the March JPA General Plan and would not inhibit SCAG from strengthening the regional transportation network for goods movement.

[2] 2,600/280000 = 0.00928 (0.93%)

Table 4.15-2. Project Consistency with the SCAG Connect SoCal RTP/SCS

RTP/SCS Measure	Proposed Project Consistency
Enhance the preservation, security, and resilience of the regional transportation system.	***Consistent***. The Specific Plan Area would be served by both local transit service and inter-city passenger rail service. The closest bus stop would be located on Alessandro Boulevard to the north of the Specific Plan Area. The closest Metrolink passenger rail transit facility is located approximately 1.5 miles from the Campus Development. In addition, 5-foot bike lanes are proposed on all Specific Plan Area roadways and 6-foot sidewalks within the Specific Plan Area would enhance connectivity. The Specific Plan would not inhibit SCAG from enhancing the resilience of the regional transportation system. The Specific Plan would also not otherwise alter or affect the security or resilience of the regional transportation system. Therefore, the Specific Plan is consistent with this goal.
Increase person and goods movement and travel choices within the transportation system.	**Consistent**. Class II bike lanes and sidewalks would be constructed in the Specific Plan Area along the following on-site roadways: Linebacker Drive, Airman Drive, Bunker Hill Drive, Arclight Drive, Cactus Avenue, Brown Street, and Barton Street. The Specific Plan Area would introduce goods movement land uses. The Specific Plan Area would be accessed through the extension of existing streets that have been planned in the March JPA General Plan (see Figure 3-6) and the City of Riverside General Plan. The Specific Plan would be consistent with the March JPA guidelines and would support SCAG's goal of increasing person and goods movement and travel choices within the transportation system.
Reduce greenhouse gas emissions and improve air quality.	**Partially Consistent**. As detailed in Section 4.7, Greenhouse Gas Emissions, of this EIR, the Specific Plan is anticipated to result in less than significant GHG impacts with **MM-GHG-1** through **MM-GHG-11** incorporated. As discussed in Section 4.2, Air Quality, the Specific Plan's operational-source emissions are anticipated to exceed the regional thresholds of significance for VOCs, NO_x, CO, and PM_{10}, emissions. Mitigation measures **MM-AQ-2** through **MM-AQ-15** are designed to reduce Specific Plan operational-source VOCs, NO_x, CO, and PM_{10} emissions. However, because the effects of these mitigation measures cannot be meaningfully quantified, impacts would be significant and unavoidable. However, the Specific Plan would create a new job center within the March JPA planning area, which would contribute nominally to the balanced jobs-housing ratio under existing and future conditions of Riverside County. Implementation of the Specific Plan would also reduce VMT regionally due to the creation of new jobs and retail within the Specific Plan Area.

Table 4.15-2. Project Consistency with the SCAG Connect SoCal RTP/SCS

RTP/SCS Measure	Proposed Project Consistency
Support healthy and equitable communities.	**Consistent**. The Specific Plan Area would provide jobs to the local and regional vicinity. The Project is anticipated to generate approximately 2,600 full-time jobs, which could be filled by existing residents of the surrounding communities and, thus, reduce unemployment in the County. The proposed 60-acre Park is analyzed would include recreational amenities such as a playground, multi-use sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The currently existing service roads within the Conservation Easement would continue to be utilized by the public for passive recreation as authorized by the March JPA. The Specific Plan is consistent with the County's Good Neighbor Policy for Logistics and Warehouse/Distribution Uses.
Adapt to a changing climate and support an integrated regional development pattern and transportation network.	**Consistent**. The Specific Plan would provide jobs and retail to the local and regional vicinity, which would reduce VMT. As detailed in Section 4.7, Greenhouse Gas Emissions, the Specific Plan will be consistent with the County's Climate Action Plan. **MM-AQ-15** requires infrastructure installed to support heavy truck charging facilities.**MM-GHG-1** requires the Project to provide solar generation sufficient to provide at least 30% of the Specific Plan Area's power needs. **MM-GHG-7** requires installation of EV charging stations. The Specific Plan Area would be served by both local transit service and inter-city passenger rail service. The closest bus stop is located on Alessandro Boulevard to the north and the closest Metrolink passenger rail transit station is located approximately 1.5 miles from the Campus Development. **MM-GHG-11** provides funding for a bus shelter on Alessandro Blvd. In addition, 5-foot bike lanes are proposed on all Specific Plan Area roadways and 6-foot sidewalks within the Specific Plan Area would enhance connectivity. As such, the Specific Plan is designed to adapt to a changing climate and support integrated regional development within the local and regional transportation network.
Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	**Consistent**. The Specific Plan would incorporate designated truck routes for proposed operations, as shown in Figure 3-6, Proposed Truck Routes, which promotes efficient truck travel with close proximity to freeways. As such, the Specific Plan would not inhibit SCAG from leveraging technology for an efficient transportation system.
Encourage development of diverse housing types in areas that are supported by multiple transportation options.	**Not Applicable**. The Specific Plan would not result in housing production on site, nor would it induce substantial unplanned population growth necessitating in the construction of new housing elsewhere (see Section 4.12, Population and Housing, of this EIR). In summary, Specific Plan would not inhibit SCAG from encouraging development of diverse housing types.

Table 4.15-2. Project Consistency with the SCAG Connect SoCal RTP/SCS

RTP/SCS Measure	Proposed Project Consistency
Promote conservation of natural and agricultural lands and restoration of habitats.	**Consistent**. The Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). The Project's Conservation Easement is proposed to be managed for its wildlife habitat value for sensitive species. The Project would be consistent with this goal as it proposes a General Plan Amendment and the implementation of a Specific Plan which would conserve land for the restoration of habitats. As such, these land use changes would promote SCAG's goal of conservation.

Source: SCAG 2020.

As shown in Table 4.15-2, the Specific Plan would be generally consistent with the goals of Connect SoCal. Moreover, because the Specific Plan would provide approximately 2,600 full-time jobs, it would contribute to the economic prosperity of the region and enhance global competitiveness. The incorporation of designated truck routes would further enhance the regional transportation network for goods movement. The Specific Plan Area's proposed industrial and business park land uses would also enhance the regional transportation network by adding goods movement land uses, thus contributing to choices within the region. By adding local jobs to an area with housing, the Specific Plan would contribute nominally to the balanced jobs-housing ratio of the County (see Section 4.12 of this EIR). Therefore, impacts related to consistency with SCAG's Connect SoCal would be **less than significant,** and no additional mitigation is required.

General Plan Consistency

The TA (Appendix N) provides analysis of the Specific Plan Area's potential effects relative to General Plan consistency with level of service (LOS) policies used by the March JPA and the cities or agencies that have jurisdiction over each of the study intersections. Pursuant to Public Resources Code Section 21099(b)(2) and CEQA Guidelines Section 15064.3(a), a project's effect on automobile delay is not considered a significant environmental effect. This discussion is provided for informational purposes.

The TA provides a detailed analysis of operational characteristics for the 15 roadway segments and 38 intersections in the study area for the following scenarios: Existing (2021) Conditions, Existing plus Project, Opening Year (2028) Cumulative, Opening Year (2028) Cumulative with Project, Horizon Year (2045) Conditions, Horizon Year (2045) with Project. For any operational deficiency noted in the TA, a fair share calculation for the Project has been determined and included in Table 1-4 of the TA. As noted in Section 4.15.4, the Project would be conditioned to payment of a fair share contribution toward future improvements **(PDF-TRA-4)**.

With the implementation of the improvement measures provided in Table 1-4 of the TA (Appendix N), all study area intersections meeting the jurisdictions' deficiency criteria[3] are anticipated to operate at acceptable LOS under Horizon Year (2045) With Project traffic, with the exception of the following:

- Washington St. and Van Buren Bl. (#1) – LOS F AM peak hour; LOS E PM peak hour

[3] Deficiency criteria is outlined in Section 2.7 of the TA (Appendix N). Intersections #6, #7, #10, and #37 fall below the applicable agency's deficiency criteria.

- Alessandro Bl. and Arlington Av./Chicago Av. (#2) – LOS F AM and PM peak hours [no feasible intersection improvements]
- Canyon Crest Dr./Overlook Pkwy. and Alessandro Bl. (#3) – LOS F AM and PM peak hours
- Trautwein Rd. and Alessandro Bl. (#5) – LOS F AM and PM peak hours
- Trautwein Rd. and Van Buren Bl. (#8) – LOS F AM and PM peak hours; LOS E Saturday peak hour
- Barton St. and Alessandro Bl. (#11) – LOS F AM peak hour only
- Barton St. and Van Buren Bl. (#14) – LOS F AM peak hour; LOS E PM peak hour
- Brown St. and Alessandro Bl. (#20) – LOS E AM peak hour; LOS F PM and Saturday peak hours [no feasible intersection improvements]
- Meridian Pkwy. and Alessandro Bl. (#24) – LOS F AM and PM peak hours [no feasible intersection improvements]
- Meridian Pkwy. and Cactus Av. (#25) – LOS E AM peak hour; LOS F PM peak hour
- Meridian Pkwy. and Van Buren Bl. (#26) – LOS F AM and PM peak hours
- Graham St./Riverside Dr. and Cactus Av. (#38) – LOS F AM and PM peak hours

Additional improvements for deficient roadway segments are not recommended as acceptable or improved peak hour traffic operations can be achieved with existing lanes or with the improvements provided in Table 1-4 of the TA (Appendix N).

In accordance with CEQA Guidelines Section 15064.3(a), LOS is not used as a metric to identify transportation impacts under CEQA. Therefore, the proposed Project transportation impacts related to the March JPA and other agencies' General Plans would be **less than significant**.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). The currently existing service roads within the Conservation Easement would continue to be utilized by the public for passive recreation as authorized by the March JPA; however, public vehicular access would continue to be prohibited. As no development or ground disturbance is proposed within the Conservation Easement, no change to existing conditions would occur. As such, **no impacts** with respect to transportation would occur with the establishment of the Conservation Easement.

Threshold TRA-2. Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3(b) focuses on newly adopted criteria (VMT) adopted pursuant to SB 743 for determining the significance of transportation impacts. As discussed above in sub-section 4.15.2, Relevant Plans, Policies and Ordinances, pursuant to SB 743, the focus of transportation analysis changes from vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. As stated in CEQA Guidelines Section 15064.3(c), the provisions of Section 15064.3 applied statewide on July 1, 2020.

The March JPA has yet to adopt its own VMT analysis guidelines and thresholds. For the purposes of this Draft EIR, the recommended VMT analysis methodology and thresholds identified within the OPR's Technical Advisory and WRCOG Guidelines have been used. The VMT analysis memorandum addressing the operational analysis of the Specific Plan has been prepared by Urban Crossroads is included in Appendix N.

Specific Plan Area (Campus Development, Park, Infrastructure Improvements)

Construction

CEQA Guidelines Section 15064.3(b)(3) states that, for many projects, a qualitative analysis of construction traffic may be appropriate. The OPR guidelines recommend a threshold of significance for land use development (residential, office, and other land uses) and transportation projects. It should be noted that there is no significance threshold for the construction phase of a project. As analyzed in Sections 4.2, Air Quality, and 4.7, Greenhouse Gas Emissions, the construction of the Specific Plan Area would generate temporary construction-related trips and includes vendor truck trips although such trips have been excluded from VMT analysis by OPR. The VMT generated would occur on a short-term basis during construction activities. The increase in VMT associated with Specific Plan Area construction would be temporary and cease once construction is completed would not cause a significant VMT impact in accordance with OPR guidelines. Therefore, the Specific Plan Area's construction would not be inconsistent with CEQA Guidelines Section 15064.3(b) and impacts would be **less than significant**, and no mitigation is required.

Operations

Project VMT

The calculation of VMT for land use projects is based on the total number of trips generated and the average trip length of each vehicle. RIVCOM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The WRCOG Guidelines identifies RIVCOM as the appropriate tool for conducting VMT analysis for land use projects in Riverside County.

Project VMT has been calculated using the most current version of RIVCOM Version 3.0. Adjustments in socio-economic data (i.e., employment) have been made to the appropriate traffic analysis zone within the model to reflect the Project's proposed land uses (i.e., retail and non-retail uses). Figure 4.15-7 illustrates the Project's traffic analysis zone in the RIVCOM model.

The RIVCOM model utilizes socio-economic data (SED) (e.g., population, households, employment, etc.) instead of land use information for the purposes of vehicle trip estimation. Project land use information such as building square footage must first be converted to SED for input into RIVCOM. The analyzed Project is comprised of the following uses:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1,280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- 2.84 acres of Public Facilities for future sewer lift station and electrical substation

The employment estimates are consistent with those used by the Project's Water Supply Assessment (WSA), as included within Appendix O of this Draft EIR. Because park and recreational uses do not include significant number of employees, only the retail and non-retail uses of the Specific Plan were included in the SED for the model.

Table 4.15-3 presents the estimated number of Specific Plan Area employees by land use type used to populate the RIVCOM model. The RIVCOM model was then run inclusive of the Specific Plan's SED inputs to provide the Specific Plan's VMT.

Table 4.15-3. Employee Estimates

Land Use	Building Area (in square feet)	Estimated Employees[4]
Industrial[1]	3,062,561 SF	2,000 Industrial Employees
Business Park[2]	1,763,168 SF	340 Service Employees
Retail[3]	160,921 SF	255 Retail Employees

Source: Appendix N
Notes:
1 Includes Building B, Building C and Industrial Area
2 Includes Business Park Area and 75% of the Mixed-Use Area
3 Includes 25% of the Mixed-Use Area
4 Estimated Employees from Project's Water Supply Assessment (Appendix O). Square footages consist of more building area than is actually proposed under the Project, and thus the employment generation is considered a worst-case estimate.

Retail VMT

The Specific Plan Area's retail land uses are evaluated using the VMT metric of total VMT. RIVCOM was used to calculate the baseline total link-level VMT for both "No Project" and "With Project" model runs. This calculation is commonly referred to as the "boundary method" and includes the total VMT for all vehicle trips with one or both trip ends within a specific geographic area. As mentioned previously, a 15-mile service area surrounding the Project site was determined to be the influence region for the Specific Plan Area. As shown in Table 4.15-4, the addition of the Specific Plan Area results in a net decrease to total VMT. Therefore, per OPR criteria, since the addition of the Specific Plan Area's retail component would result in a net decrease in total VMT for the region, the Specific Plan Area would result in a **less than significant** impact, and no mitigation is required.

Table 4.15-4. Net Change in Total VMT for the Region

	15-mile Region[1]
Total VMT for No Project	43,167,218
Total VMT for With Project	43,039,938
+/- to VMT	-127,280
Percent Change	-0.29%
Potentially Significant	No

Source: Appendix N
Note:
1 The 15-mile region represents the true boundary within a 15-mile service area of the proposed project and is not limited to the WRCOG jurisdictional boundary.

Non-Retail VMT

The Technical Advisory identifies that for land uses other than residential and retail, the measure of VMT should be VMT per employee. RIVCOM was utilized to calculate Specific Plan Area-generated VMT for the non-retail land uses

and that value was then divided by the Specific Plan Area's employment estimate to derive Specific Plan Area-generated VMT per employee. Specific Plan Area-generated home-based work (HBW) VMT was then calculated for both the base year model (2018) and cumulative year model (2045), and linear interpolation was used to determine the Specific Plan Area's baseline (i.e., year 2022) HBW VMT. Per WRCOG guidelines, the cumulative year of VMT analysis should represent a long-term scenario consistent with the applicable regional transportation plan, which is Connect SoCal RTP/SCS 2020-2045. The cumulative year also represents the future year of the travel demand model and is considered consistent with the RTP/SCS, Therefore, the VMT analysis uses year 2045 as the cumulative year for assessing the long-term effects of the Project. Table 4.15-5 HBW VMT is calculated from RIVCOM for the Specific Plan Area's non-retail land uses, the number of Specific Plan Area non-retail employees and Specific Plan Area non-retail VMT per employee.

Table 4.15-5. Non-Retail VMT per Employee

	Project Non-Retail
VMT[1]	58,874
Non-Retail Employment[2]	2,340
VMT per Employee[3]	24.12[4]

Source: Appendix N

Note:

1 Includes only the Home-based work VMT generated by the non-retail employees.

2 Non-retail employment is calculated by adding employees estimated for Industrial and Business Park uses and as shown in Table 4.15-3.

3 VMT per Employee is a measure of all auto trips between home and work and does not include heavy duty truck trips or freight, which is consistent with OPR guidance.

4 VMT per employee was calculated by interpolating the value of the base year 2018 (i.e., 26.11 VMT per employee) and the cumulative year 2045 (i.e., 12.63 VMT per employee), which estimated to be 24.12 for the year 2022.

Table 4.15-6 provides a comparison between Specific Plan Area VMT per employee to the WRCOG significance threshold of 25.47. The Specific Plan Area's non-retail VMT per employee was found to be below the WRCOG significance threshold by 5.3%. Therefore, the Specific Plan Area's impact on VMT is **less than significant**, and no mitigation is required.

Table 4.15-6. Specific Plan Area Non-Retail VMT per Employee Comparison

	VMT per Employee
WRCOG Regional Average	29.97
WRCOG Threshold (15% below WRCOG Regional Average)	25.47
Project	24.12
Difference	-1.35
Percent Change	-5.30%
Potentially Significant	No

Source: Appendix N

Based on the results of the Specific Plan Area's VMT analysis the following can be concluded:

- Consistent with the requirement for retail land uses to be evaluated using the VMT metric of total VMT, the Specific Plan Area's retail land uses were found to decrease total VMT in the 15-mile service area by 127,280 or about 0.29%. The Specific Plan Area's retail land uses are determined to have a less than significant impact for the retail uses.

- The Specific Plan Area's non-retail land uses were found to be below the WRCOG regional VMT per employee threshold (i.e., 15% below existing regional VMT baseline per employee) by 5.30%. The Specific Plan Area's non-retail employment uses are determined to also have a less than significant impact.

As shown in Section 4.15.9, the cumulative or long-terms effects of the Specific Plan Area retail and non-retail land uses would also have a less than significant impact.

The Specific Plan Area's impact on VMT is considered **less than significant**. Therefore, the Specific Plan Area would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b). Although the Specific Plan Area is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires the Project to provide funding for the installation of a bus shelter on Alessandro Boulevard.

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). As no development or ground disturbance is proposed in the Conservation Easement, no change to existing conditions would occur. As such, **no impacts** with respect to CEQA Guidelines Section 15064.3(b). would occur with the establishment of the Conservation Easement.

Threshold TRA-3. Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?

Specific Plan Area (Campus Development, Park, Infrastructure Improvements)

The following discussion describes the potential for increased hazards as a result of geometric design features of the Specific Plan Area, and/or as a result of the addition of Specific Plan Area traffic to Caltrans facilities. The section also discusses the Specific Plan Area access consistent with Caltrans requirements. The 95th percentile vehicle queues were assessed at the off-ramps to determine potential queuing deficiencies at the freeway ramp intersections at the I-215 ramps at the Alessandro Boulevard, Cactus Avenue, and Van Buren Boulevard interchanges. Specifically, the queuing analysis was used to identify any potential queuing and "spill back" onto the I-215 mainline from the off-ramps which would be considered a hazard.

Construction

During the construction phase, worker and vendor trips are anticipated to use the I-215 ramps at the Alessandro Boulevard, Cactus Avenue, and Van Buren Boulevard interchanges. A haul route for trucks would be established based on locations of landfills and/or delivery of construction materials and equipment. A queuing analysis of construction related worker or truck trips at off-ramp intersections or Specific Plan Area access locations is not warranted. Additionally, a construction specific traffic management plan to be implemented to maintain access for all modes and users of the circulation system. The plan would include requirements for temporary traffic controls and construction traffic management during the construction period. Therefore, impacts due to increase in hazards during construction would be **less than significant**.

Operations

I-215 Off-Ramps

A queuing analysis was performed for the I-215 off-ramps at the Alessandro Boulevard, Cactus Avenue, and Van Buren Boulevard interchanges for Existing (2021) conditions (Appendix N). The analysis indicates there are currently no queuing issues that may potentially "spill back" onto the I-215 mainline at the study area interchanges. As shown in the Project's TA, there are no movements where the 95th percentile queues would exceed their storage lengths during the weekday AM or weekday PM peak hours for Existing Without and With Project traffic conditions (2021), Opening Year Cumulative (2028) Without and With Project traffic conditions, and Horizon Year (2045) Without and With Project traffic conditions. The geometric configuration of the ramp intersections was assumed to be same for all the analysis scenarios.

Table 4.15-7 summarizes the queuing analysis conducted at the off-ramp intersections under Horizon Year (2045) conditions. No spillback onto I-215 mainline is anticipated due to sufficient storage lengths available in the adjacent lanes under all the scenarios analyzed in the TA. The queues at the I-215 ramps at the Alessandro Boulevard, Cactus Avenue, and Van Buren Boulevard Avenue interchanges would increase due to addition of Specific Plan Area trips, however, none of the queues are reported to spill back onto I-215 or add two or more car lengths to the ramp queues in the peak hours that would extend into the freeway mainline per Caltrans criteria.

Table 4.15-7. Peak hour Freeway Off-Ramp Queuing — Summary for Horizon Year (2045) Conditions

Intersection	Movement[3]	Available Stacking Distance (Feet)[3]	HY (2045) Without Project						HY (2045) With Project					
			95th Percentile Queue (Feet)			*Acceptable?[1]*			*95th Percentile Queue (Feet)*			*Acceptable?[1]*		
			AM Peak Hour	*PM Peak Hour*	*SAT Peak hour*	*AM*	*PM*	*SAT*	*AM Peak Hour*	*PM Peak Hour*	*SAT Peak hour*	*AM*	*PM*	*SAT*
I-215 SB Ramps and Alessandro Blvd. (#28)	SBL	525	249	305	102	YES	YES	YES	265	346[2]	113	YES	YES	YES
	SBL/R	1,540	242	324[2]	116	YES	YES	YES	264	345[2]	147	YES	YES	YES
	SBR	525	223	298[2]	108	YES	YES	YES	247	312[2]	140	YES	YES	YES
I-215 NB Ramps and Alessandro Blvd (#29)	NBL	450	814[2,3]	521[2,3]	180	YES	YES	YES	890[1,2]	578[1,2]	202	YES	YES	YES
	NBL/T/R	1,345	784[2]	565[2]	178	YES	YES	YES	861[2]	618[2]	203	YES	YES	YES
	NBR	450	458[2,3]	290	121	YES	YES	YES	458[2]	290	135	YES	YES	YES
I-215 SB Ramps and Cactus Av. (#30)	SBR	1,115	382[2]	443[2]	0	YES	YES	YES	1,035[2]	855[2]	0	YES	YES	YES
	NBR	1,850	596[2]	609[2]	0	YES	YES	YES	599[2]	610[2]	39	YES	YES	YES
I-215 NB Ramps and Cactus Av. (#31)	NBL	145	1,010[2,3]	433[2,3]	61	YES	YES	YES	1,166[2]	566[2]	131	YES	YES	YES
	NBT/R	1,650	633[2]	265[2]	77	YES	YES	YES	633[2]	265[2]	76	YES	YES	YES
I-215 SB Ramps and Van Buren Blvd. (#32)	SBL/T	1,510	408[2]	1,035[2]	30	YES	YES	YES	408[2]	1,035[2]	30	YES	YES	YES
	SBR	1,450	958[2]	593[2]	363[2]	YES	YES	YES	958[2]	593[2]	375[2]	YES	YES	YES
I-215 NB Ramps and Van Buren Blvd. (#33)	NBL	1,560	324	230	0	YES	YES	YES	324	218	0	YES	YES	YES
	NBR	580	38	63	0	YES	YES	YES	38	60	0	YES	YES	YES

Notes:

1 Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An Additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

2 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

3 Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

Specific Plan Area Access

A queuing analysis was also performed for the Specific Plan Area access intersections of Airman Drive/Cactus Avenue and Linebacker Drive/Cactus Avenue. **PDF-TRA-1** includes the recommended intersection turn pocket storage lengths and geometric lane of the TA. **PDF-TRA-1** also includes signalization of the Airman Drive, Linebacker Drive, and Brown Street intersections with Cactus Avenue based on the TA's traffic signal warrant analysis. Signalization of those intersections would improve traffic operations in the Specific Plan Area. Furthermore, the Specific Plan Area access locations are not located within close proximity to the I-215 ramps and adequate turn pocket storage lengths at access locations were determined in the TA.

Therefore, the Specific Plan Area's site design, specifically access locations, would not cause queuing onto roadways due to their placement near ramp intersections and would include adequate storage lengths in turn pockets at the Project access intersections.

Additionally, on-site traffic signing and striping will be implemented consistent with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Specific Plan Area site. Sight distance at each access point will be reviewed with respect to standard Caltrans and March JPA sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

At the request of City of Riverside staff during the scoping process, traffic calming measures were reviewed for Barton Street. To address potential speeding and pedestrian safety, **MM-TRA-2** would require the Project applicant to develop and implement a Barton Street Traffic Safety Plan with appropriate traffic calming measures such as raised crosswalks/sidewalk extensions, raised intersections, chicane, center line and curd adjustment, roundabouts and lane narrowing supplemented with speed activated speed limit signs/warning signs, additional signage, flashing beacons, approved by the March JPA Civil Engineer, in compliance with a three-party memorandum of understanding mitigation executed by the City of Riverside, March JPA, and Meridian Park LLC.

Therefore, with implementation of **PDF-TRA-1, MM-TRA-1** and **MM-TRA-2**, the operations of the Specific Plan Area would not increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses in the Specific Plan Area and impacts would be **less than significant with mitigation incorporated.**

Conservation Easement

Under the Project, a Conservation Easement would be established consistent with the terms of the CBD Settlement Agreement (Appendix S). No development or ground disturbance is proposed in the Conservation Easement, so no change to geometric design features or incompatible uses would occur within the Conservation Easement. As such, **no impacts** with respect to increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses would occur with the establishment of the Conservation Easement.

4.15.7 Mitigation Measures and Conditions of Approval

Mitigation Measures

The following mitigation measures are intended to reduce Project-related impacts.

MM-TRA-1 Construction Traffic Management Plan

Prior to the issuance of building permits, the Project applicant shall develop and implement a March Joint Powers Authority-approved Construction Traffic Management Plan addressing potential construction-related traffic detours and disruptions to ensure that to the extent practical, construction traffic would access the Project site during off-peak hours; and shall include, but not be limited to, the following measures:

- Maintain existing access for land uses in proximity of the Project Site throughout construction.
- Designate an on-site employee parking area.
- Schedule deliveries and pick-ups of construction materials to non-peak travel periods.
- Minimize obstruction of through traffic lanes on Alessandro Boulevard and Meridian Parkway.
- Construction equipment traffic from the contractors shall be controlled by flagman.
- Identify designated transport routes for heavy trucks to be used throughout Project construction.
- Schedule vehicle movements to ensure that there are no vehicles waiting off site and impeding public traffic flow on the surrounding streets.
- Establish requirements for loading/unloading and storage of materials on the Project Site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to adjacent businesses and/or properties. Any travel lane encumbrances shall not occur during peak traffic hours.
- Coordinate with adjacent or affected businesses and/or properties and emergency service providers to ensure adequate access exists to the Project Site and neighboring sites.
- Construction traffic shall be routed to avoid travel through, or proximate to, sensitive land uses.
- All construction contractors shall be provided with written information on the Construction Traffic Management Plan along with clear consequences to violators for failure to follow the Plan.
- Signage shall be posted on Brown Street and Cactus Avenue with contact information for the project manager for public questions or concerns about construction traffic. A response to comments or inquiries will be provided within 72 hours of receipt.

MM-TRA-2 Traffic Safety Plan for Barton Street

Prior to the issuance of grading permits, the Project applicant shall develop a Barton Street Traffic Safety Plan to include traffic calming features supplemented with speed activated speed limit signs/warning signs, additional signage, flashing beacons, approved by the March Joint Powers Authority (JPA) Civil Engineer, in compliance with a three-party memorandum of understanding mitigation executed by the City of Riverside, March JPA, and Meridian Park LLC. The Project applicant shall implement the Plan and shall install “No Parking” signs along Barton Street to restrict on-street parking.

4.15.8 Level of Significance after Mitigation

Threshold TRA-1

With implementation of **MM-TRA-1 Construction Traffic Management Plan**, short term construction impacts to the circulation system would be ***less than significant with mitigation incorporated***. With implementation of **PDF-TRA-1**, **PDF-TRA-2** and **MM-TRA-2**, operational impacts to the circulation system would be ***less than significant with mitigation incorporated.***

Threshold TRA-2

The Specific Plan Area's impact on VMT is considered ***less than significant***. Therefore, the Specific Plan Area would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b). Although the Specific Plan Area is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires the Project to provide funding for the installation of a bus shelter on Alessandro Boulevard.

Threshold TRA-3

with implementation of **MM-TRA-1**, impacts due to increase in hazards during construction would be ***less than significant with mitigation incorporated***. With implementation of **PDF-TRA-1, MM-TRA-1** and **MM-TRA-2**, the operations of the Specific Plan Area would not increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses in the Specific Plan Area and impacts would be ***less than significant with mitigation incorporated*.**

4.15.9 Cumulative Effects

Project's Cumulative Effect on VMT

The Technical Advisory states that "A project's cumulative impacts are based on an assessment of whether the "incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (California Public Resources Code, Section 21083[b][2]; see 14 CCR 15064[h][1]). When using an absolute VMT metric, i.e., total VMT (as recommended for retail and transportation projects), analyzing the combined impacts for a cumulative impacts analysis may be appropriate. However, metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency (as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impacts that utilize plan compliance as a threshold of significance."

As shown in Section 4.15.6, the addition of the Project retail component results in a net decrease to total VMT. Therefore, using OPR criteria, since the addition of the Project's retail component would result in a net decrease in total VMT for the region, it would result in a less than significant cumulative effect, as well. At the plan level the

retail was analyzed with maximum intensities assumed for the use. However, once the development plan is prepared, a re-evaluation should be performed. Consistent with WRCOG and OPR guidance, retail uses less than 50,000 SF can be presumed to be local serving and result in a less than significant impact. For retail uses over 50,000 SF, the development would prepare a Project-specific VMT analysis to determine VMT impacts.

Because the VMT per employee estimated for Project's non-retail component does not exceed the 15% below the WRCOG significance threshold under base year with Project conditions, it would also imply a less than significant cumulative impact.

Per WRCOG guidelines, if the baseline project VMT results in a less-than-significant impact, then cumulative analysis may not be required. The WRCOG study also notes that, as such, if a project is consistent with the regional RTP/SCS, then the cumulative impacts shall be considered less than significant subject to consideration of other substantial evidence. As shown in Section 4.15.6, the Project's impact on VMT is less than significant. As shown in Table 4.15-1, the proposed Project is consistent with the RTP/SCS, therefore, per WRCOG guidance would have less than significant VMT impact under cumulative conditions. Hence, Project's cumulative effect would be ***less than significant*** and ***less than cumulatively considerable***.

4.15.10 References Cited

BB&K. 2022. *March JPA Local Guidelines for Implementing the California Environmental Quality Act.*

Caltrans (California Department of Transportation). 2020a. *Transportation Impact Study Guide*. Vehicles Miles Traveled-Focused Draft. May 2020.

Caltrans. 2020b. Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance. December 2020.

City of Riverside. 2007. *City of Riverside General Plan 2025.* November 2007.

County of Riverside. 2016. *County of Riverside General Plan – Circulation Element.* Revised December 13, 2016. https://planning.rctlma.org/Portals/14/genplan/general_Plan_2017/elements/OCT17/Ch04_Circulation_121316.pdf?ver=2017-10-11-093743-433.

March JPA (Joint Powers Authority). 1999. "Transportation Element." *General Plan of the March Joint Powers Authority*. Accessed June 2020. https://marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

March JPA. 2020. *Final Traffic Impact Study Preparation Guide*. February 2020. https://www.marchjpa.com/documents/docs_forms/10122020_TIS_Guidelines_02102020.pdf

March JPA. 2022. *Local Guidelines for Implementing the California Environmental Quality Act for March Joint Powers Authority and March Inland Port Airport Authority and Successor Agency of the Former March Joint Power Redevelopment Agency and March Joint Powers Utilities Authority*. https://www.marchjpa.com/documents/docs_forms/05172022_MJPA_2022_CEQA_Guidelines.pdf.

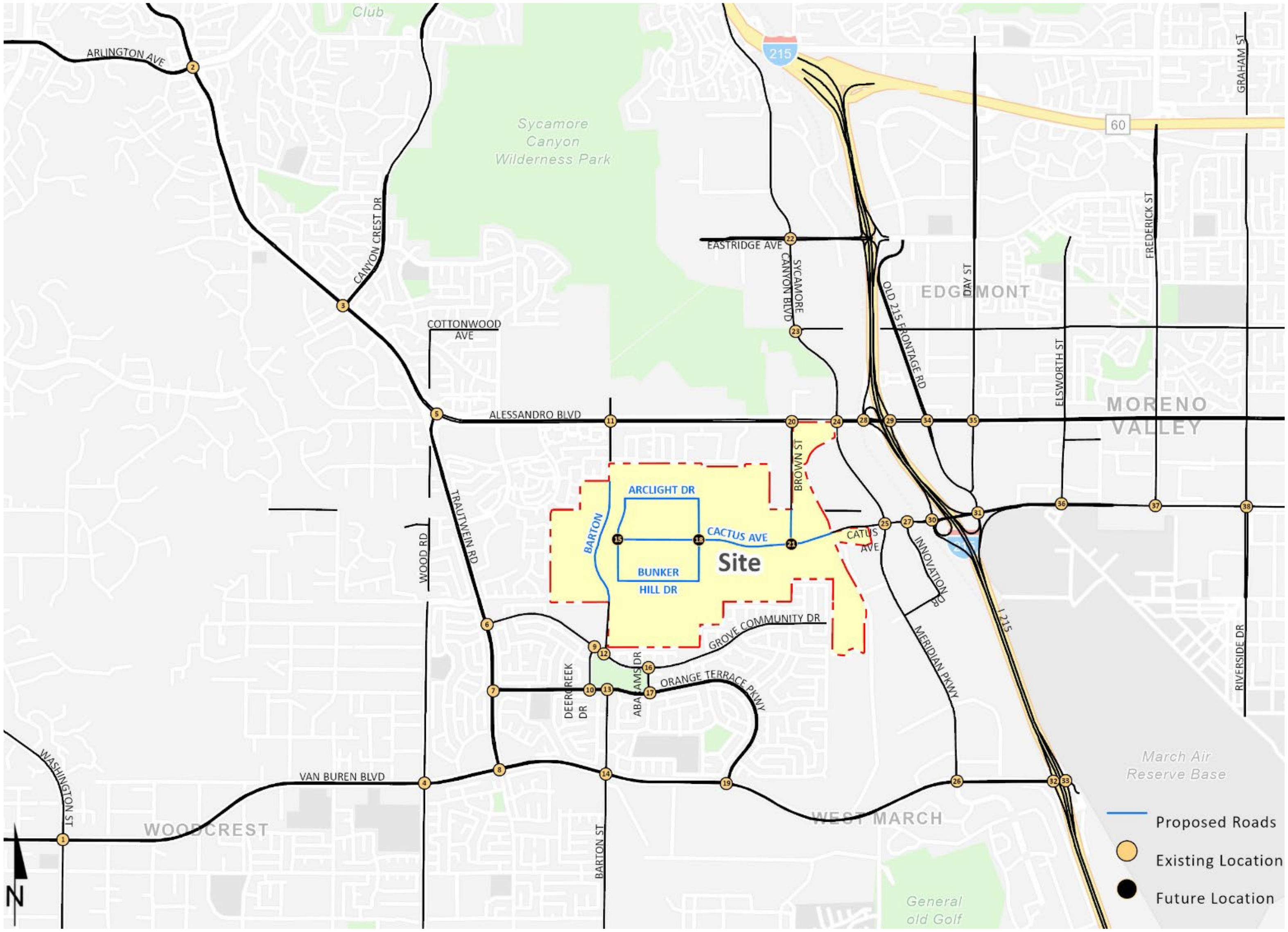
OPR (California Governor's Office of Planning and Research). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018. Accessed May 2020. http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

RCTC (Riverside County Transportation Commission). 2011. *Riverside County Congestion Management Program*. December 14, 2011. http://www.rctc.org/uploads/media_items/congestionmanagementprogram.original.pdf.

SCAG (Southern California Association of Governments). 2020. *Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy)*. http://scagrtpscs.net/Documents/2020/2020RTPSCS_LocalInputProcessFS.pdf.

WRCOG (Western Riverside Council of Governments). 2019. *WRCOG SB 743 Implementation Pathway Document Package*. Prepared by Fehr and Peers. March 2019.

WRCOG. 2020. *Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment*. January 2020.



SOURCE: Urban Crossroads 2022

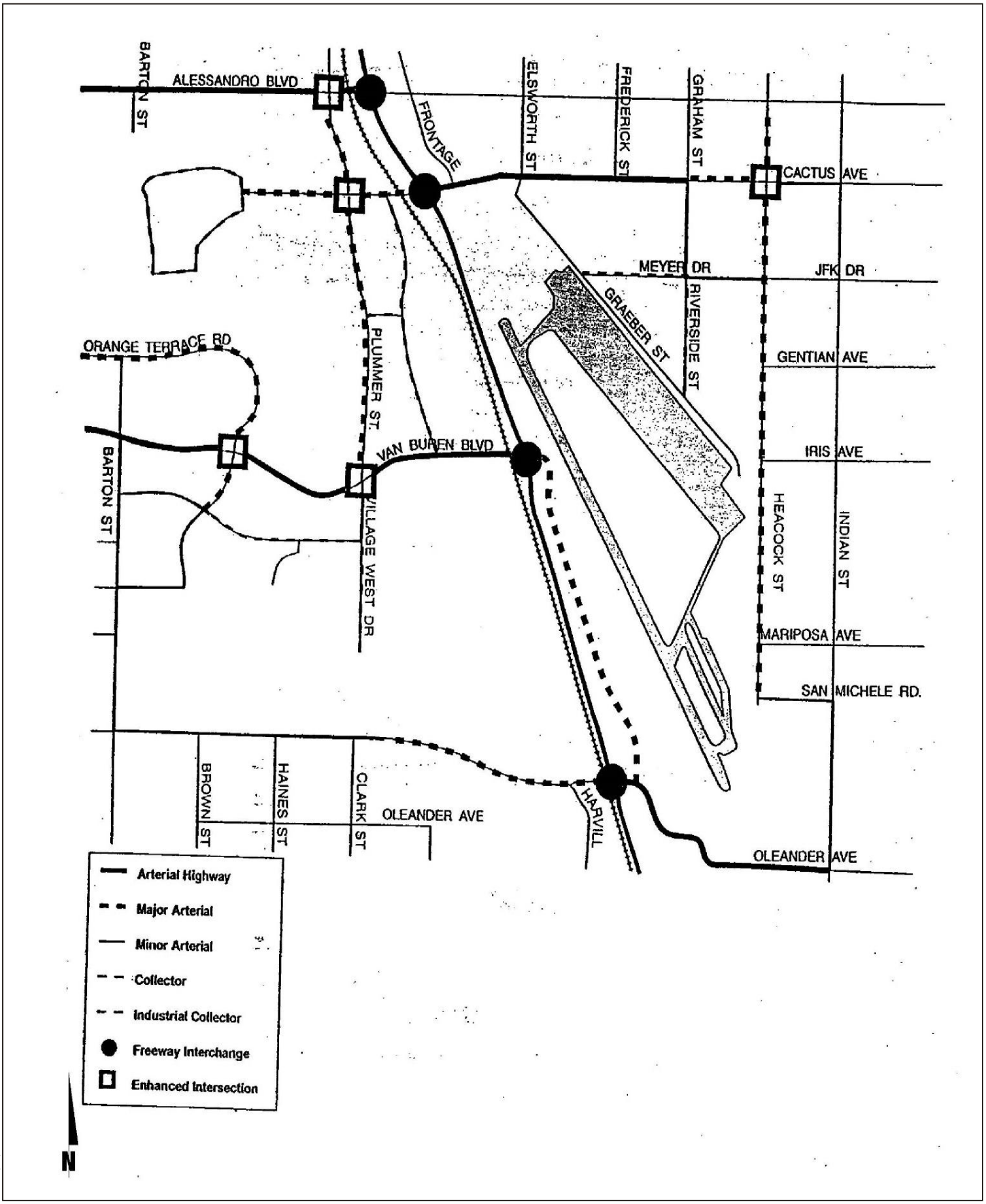
DUDEK

FIGURE 4.15-1

Roadway Network near the Project

West Campus Upper Plateau EIR

INTENTIONALLY LEFT BLANK



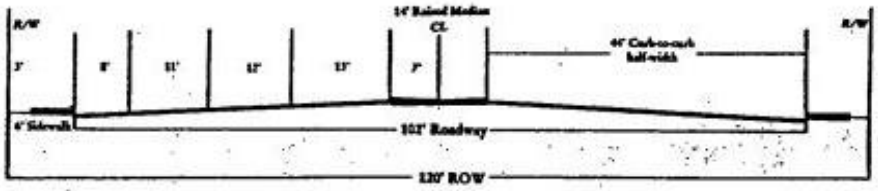
SOURCE: Urban Crossroads 2022

FIGURE 4.15-2

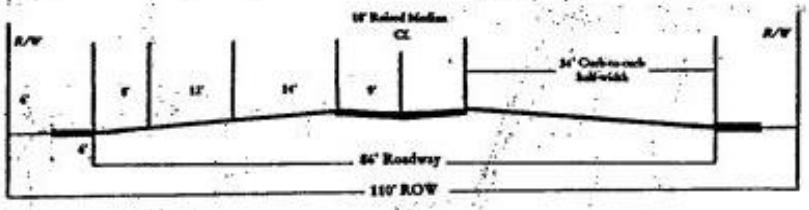
March JPA General Plan Circulation Element Roadway Classification

West Campus Upper Plateau EIR

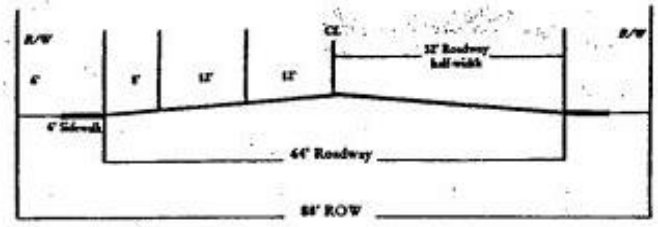
INTENTIONALLY LEFT BLANK



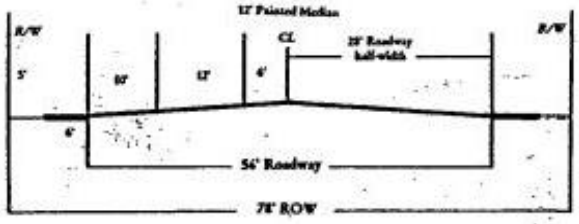
ARTERIAL HIGHWAY



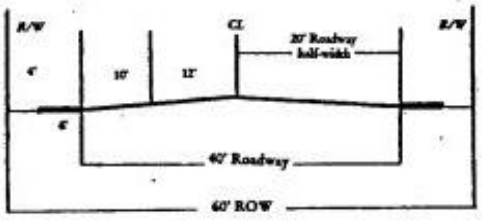
MAJOR ARTERIAL



MINOR ARTERIAL



INDUSTRIAL
COLLECTOR



LOCAL STREET

SOURCE: Urban Crossroads 2022

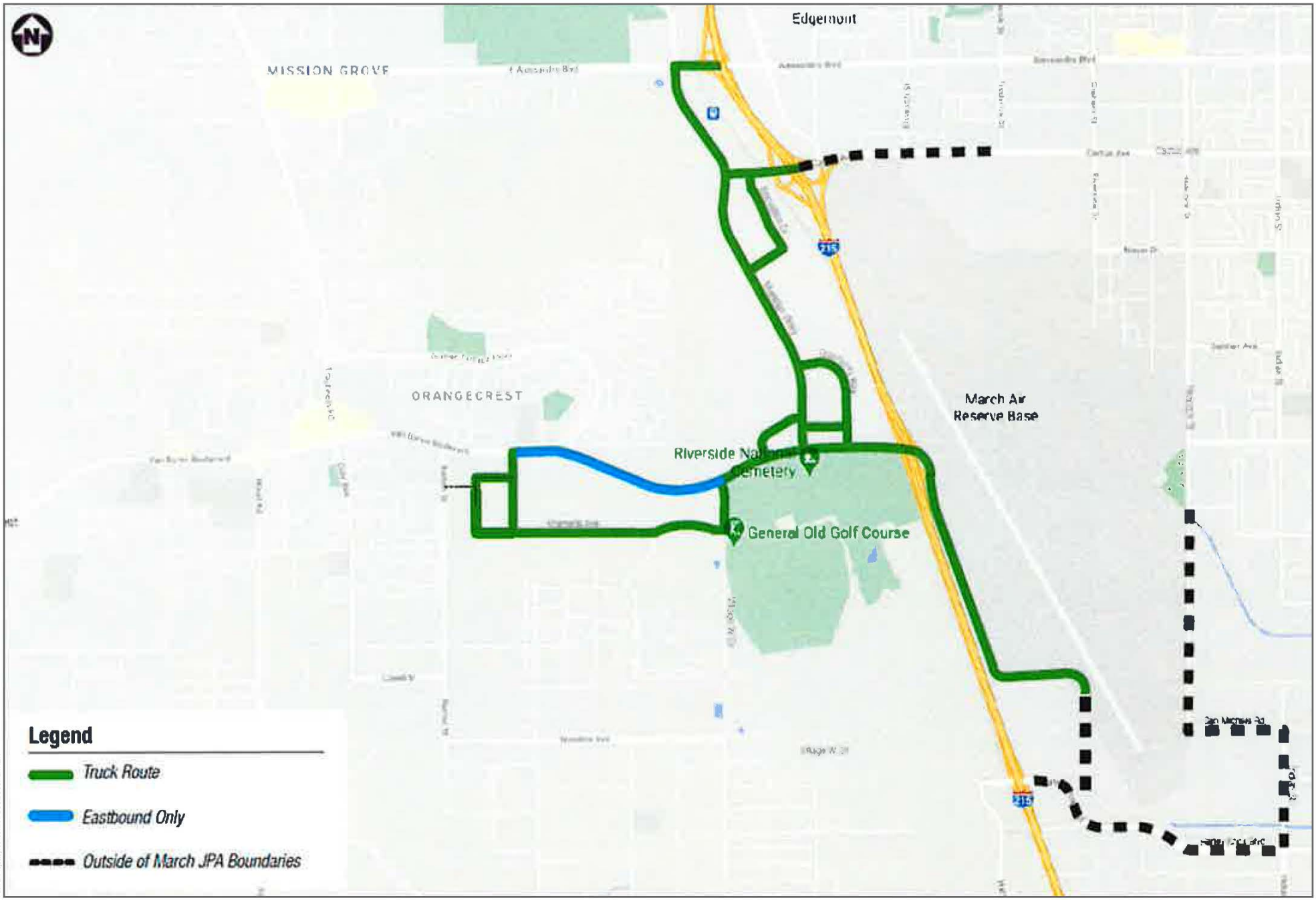
FIGURE 4.15-3

March JPA General Plan Roadway Cross-Sections

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: Urban Crossroads 2022

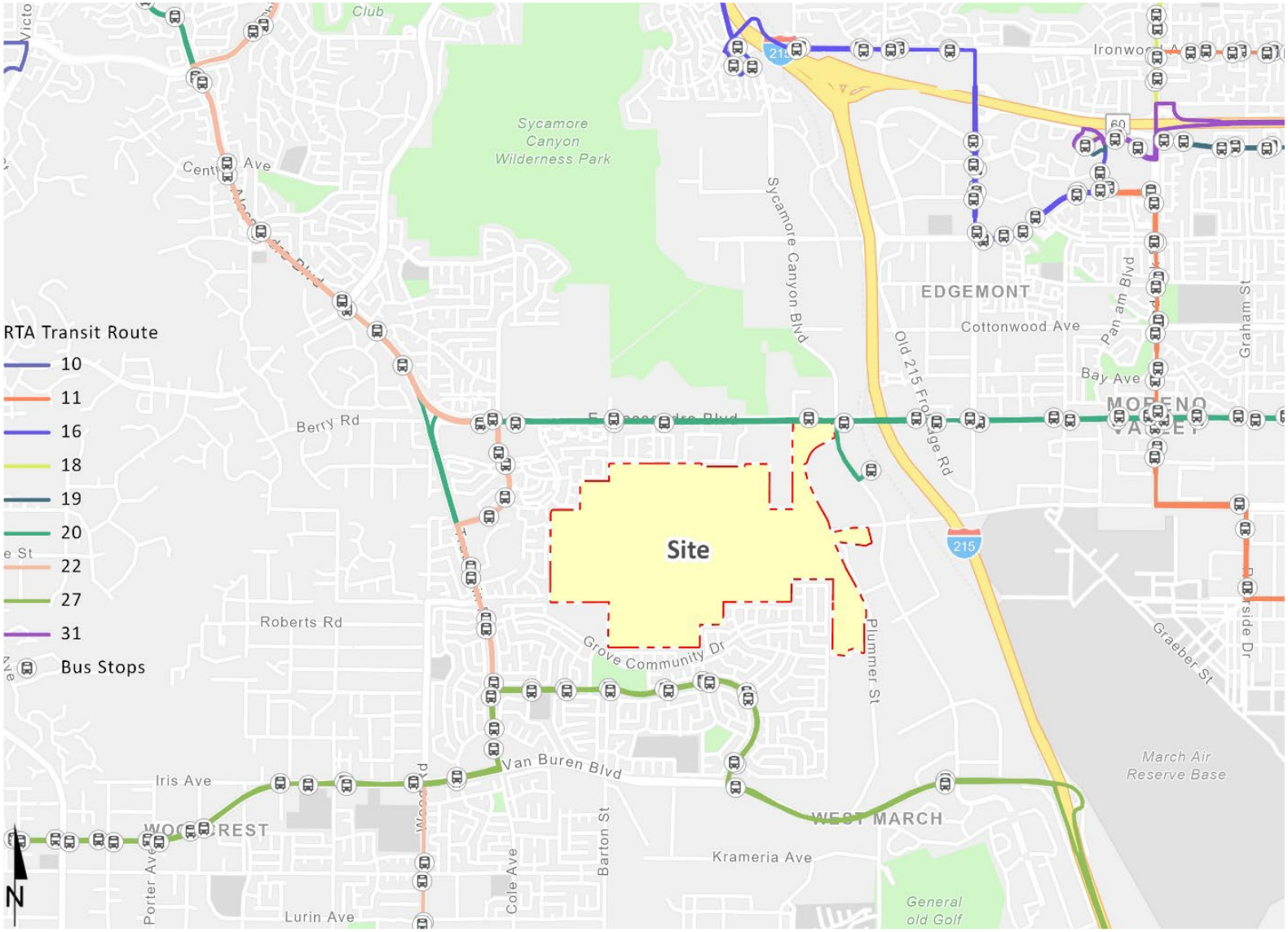
FIGURE 4.15-4

March JPA Truck Routes

West Campus Upper Plateau Draft EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: Urban Crossroads 2022

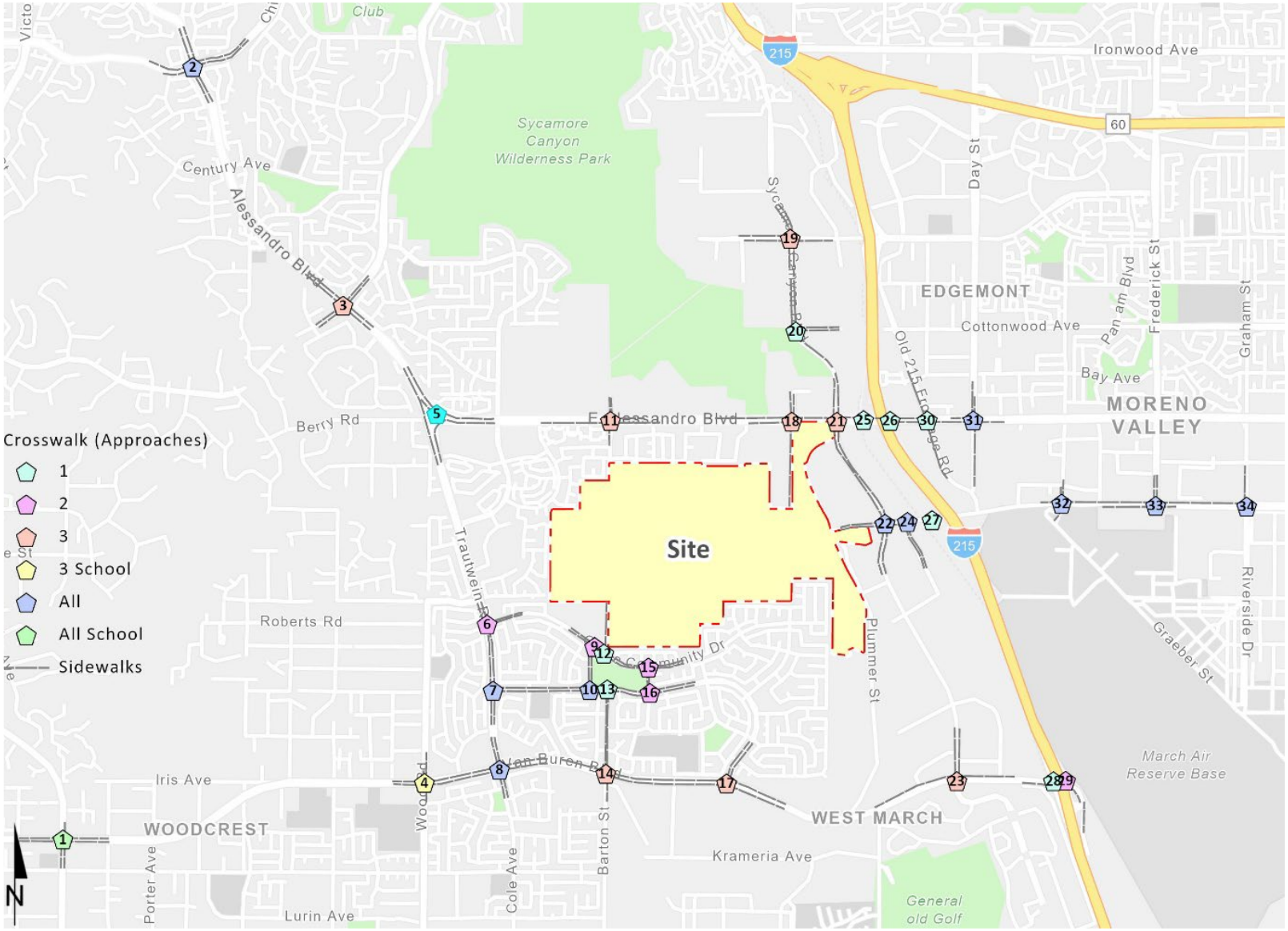
FIGURE 4.15-5

Existing Transit Routes

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: Urban Crossroads 2022

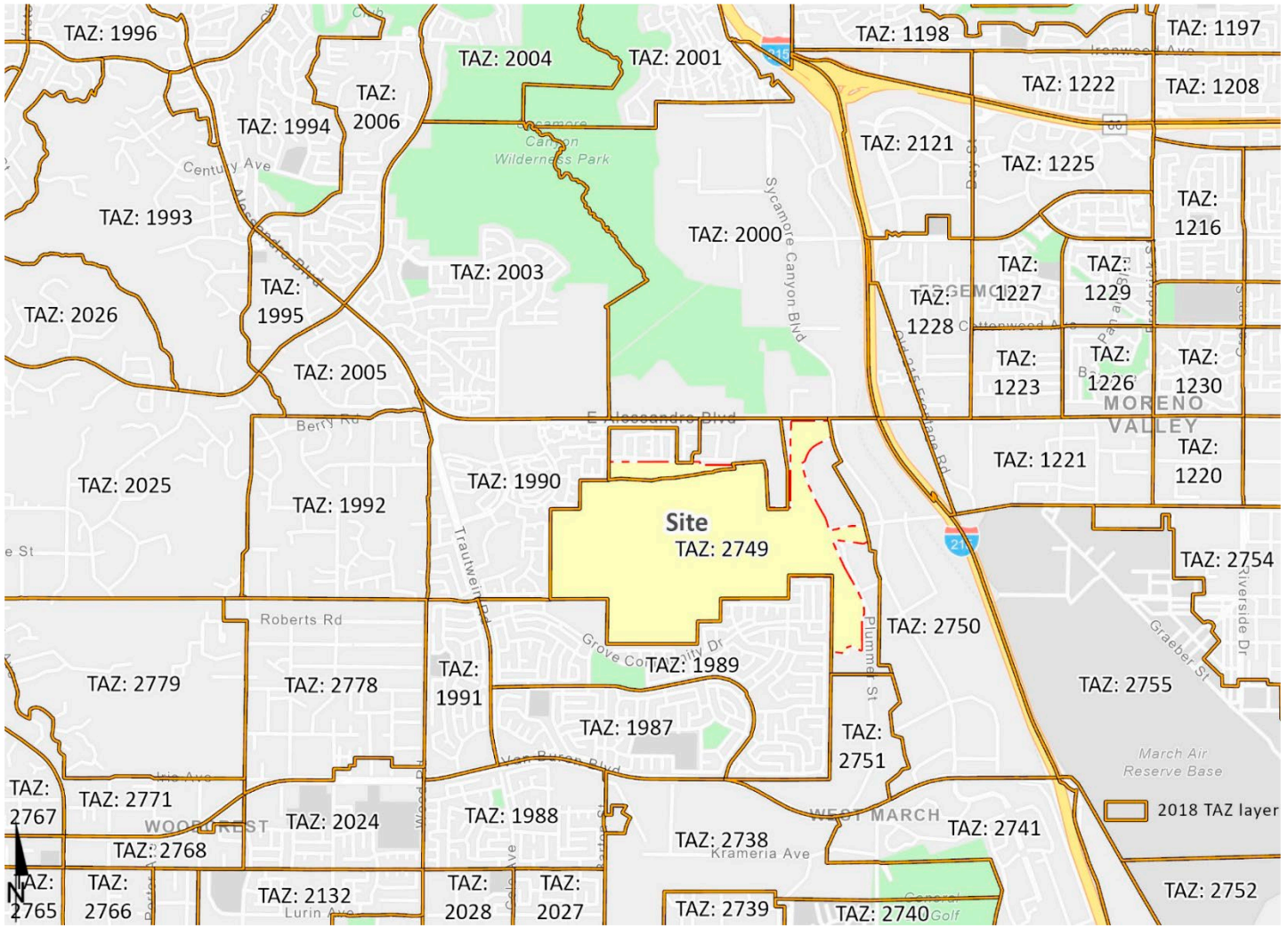
FIGURE 4.15-6

Existing Pedestrian Facilities

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: Urban Crossroads 2022

FIGURE 4.15-7

Project Traffic Analysis Zone in the RIVCOM Model

West Campus Upper Plateau EIR

DUDEK

INTENTIONALLY LEFT BLANK

4.16 Tribal Cultural Resources

This section describes the existing tribal cultural resource (TCR) environment on the Project site, identifies associated regulatory requirements, evaluates potential impacts, and if necessary, identifies mitigation measures related to implementation of the proposed West Campus Upper Plateau Project (Project). The following analysis is based in part upon the following document:

- Cultural Resources Study (Appendix E-1), prepared in 2022 by Brian F. Smith and Associates Inc.

As discussed in detail in Chapter 3, Project Description, of this EIR. The Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

The Project Area of Potential Effects (APE) covers the Specific Plan Area (Campus Development, Park, Infrastructure Improvements) which consists of the area of direct impacts (380 acres) and a 50-foot buffer, as designated by March JPA, for a total of 415-acres. The proposed off-site road improvements and buffer areas add approximately 35 acres to the APE. The APE does not include the Conservation Easement as it will be placed under a conservation easement and no ground disturbance or other development is proposed.

The Cultural Resources Study includes an archaeological records search from the EIC at UCR, background historical research on the Project area, Native American coordination, an intensive pedestrian field survey, and additional detailed mapping and archaeological feature recordation. The scope of work performed by Brian F. Smith and Associates, Inc. was consistent with the National Historic Preservation Act (NHPA), Section 106, the National Environmental Policy Act (NEPA), and CEQA.

On July 1, 2015, Assembly Bill (AB) 52 went into effect amending CEQA to include TCRs as a new class of resources and requiring additional considerations relating to Native American consultation. A TCR, in general, is similar to the federally defined Traditional Cultural Properties. However, AB 52 incorporates considerations of local and state significance and requires mitigation under CEQA. TCRs may include resources that are listed in or eligible for listing in the California Register of Historical Resources, such as archaeological sites, districts, or landscapes, or other kinds of resources that the CEQA lead agency chooses to treat as a TCR through tribal consultation.

4.16.1 Existing Conditions

This section describes the existing conditions of the Project APE pertaining to TCRs, including its ethnographic setting.

Cultural Setting

Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Takic groups are the three general cultural periods represented in Riverside County. The following discussion of the cultural history of Riverside County references the San Dieguito Complex, Encinitas Tradition, Milling Stone Horizon, La Jolla Complex, Pauma Complex, and San Luis Rey Complex, since these culture sequences have been used to describe archaeological manifestations in the region. The Late Prehistoric component present in the Riverside County area was primarily represented by the Cahuilla, Gabrielino, and Luiseño Indians (Appendix E-1).

Absolute chronological information, where possible, will be incorporated into this archaeological discussion to examine the effectiveness of continuing to interchangeably use these terms. Reference will be made to the geological framework that divides the archaeologically-based culture chronology of the area into four segments: the late Pleistocene (20,000 to 10,000 years before the present [YBP]), the early Holocene (10,000 to 6,650 YBP), the middle Holocene (6,650 to 3,350 YBP), and the late Holocene (3,350 to 200 YBP) (Appendix E-1).

Paleo Indian Period (Late Pleistocene: 11,500 to circa 9,000 YBP)

Archaeologically, the Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands (Moratto 1984). However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes (Moratto 1984; Martin 1967, 1973; Fagan 1991). The coastal shoreline at 10,000 YBP, depending upon the particular area of the coast, was near the 30-meter isobath, or 2 to 6 kilometers further west than its present location (Masters 1983) (Appendix E-1).

Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering, and collecting adaptation utilizing a variety of resources including birds, mollusks, and both large and small mammals (Erlandson and Colten 1991; Moratto 1984; Moss and Erlandson 1995) (Appendix E-1).

Archaic Period (Early and Middle Holocene: circa 9,000 to 1,300 YBP)

Archaeological data indicates that between 9,000 and 8,000 YBP, a widespread complex was established in the Southern California region, primarily along the coast (Warren and True 1961). This complex is locally known as the La Jolla Complex (Rogers 1939; Moriarty 1966), which is regionally associated with the Encinitas Tradition (Warren 1968) and shares cultural components with the widespread Milling Stone Horizon (Wallace 1955). The coastal expression of this complex appeared in Southern California coastal areas and focused upon coastal resources and the development of deeply stratified shell middens that were primarily located around bays and lagoons. The older sites associated with this expression are located at Topanga Canyon, Newport Bay, Agua Hedionda Lagoon, and some of the Channel Islands. Radiocarbon dates from sites attributed to this complex span a period of over 7,000 years in this region, beginning over 9,000 YBP (Appendix E-1).

The Encinitas Tradition is best recognized for its pattern of large coastal sites characterized by shell middens, grinding tools that are closely associated with the marine resources of the area, cobble-based tools, and flexed human burials (Shumway et al. 1961; Smith and Moriarty 1985). While ground stone tools and scrapers are the most recognized tool types, coastal Encinitas Tradition sites also contain numerous utilized flakes, which may have been used to pry open shellfish. Artifact assemblages at coastal sites indicate a subsistence pattern focused upon shellfish collection and nearshore fishing. This suggests an incipient maritime adaptation with regional similarities to more northern sites of the same period (Koerper et al. 1986). Other artifacts associated with Encinitas Tradition sites include stone bowls, doughnut stones, discoidals, stone balls, and stone, bone, and shell beads (Appendix E-1).

The coastal lagoons in Southern California supported large Milling Stone Horizon populations circa 6,000 YBP, as is shown by numerous radiocarbon dates from the many sites adjacent to the lagoons. The ensuing millennia were not stable environmentally, and by 3,000 YBP, many of the coastal sites in central San Diego County had been abandoned (Gallegos 1987, 1992). The abandonment of the area is usually attributed to the sedimentation of coastal lagoons and the resulting deterioration of fish and mollusk habitat, which is a well-documented situation at Batiquitos Lagoon (Miller 1966; Gallegos 1987). Over a two-thousand-year period at Batiquitos Lagoon, dominant mollusk species occurring in archaeological middens shift from deep-water mollusks (*Argopecten* sp.) to species tolerant of tidal flat conditions (Chione sp.), indicating water depth and temperature changes (Miller 1966; Gallegos 1987) (Appendix E-1).

This situation likely occurred for other small drainages (Buena Vista, Agua Hedionda, San Marcos, and Escondido creeks) along the central San Diego coast where low flow rates did not produce sufficient discharge to flush the lagoons they fed (Buena Vista, Agua Hedionda, Batiquitos, and San Elijo lagoons) (Byrd 1998). Drainages along the northern and southern San Diego coastline were larger and flushed the coastal hydrological features they fed, keeping them open to the ocean and allowing for continued human exploitation (Byrd 1998). Peñasquitos Lagoon exhibits dates as late as 2,355 YBP (Smith and Moriarty 1985) and San Diego Bay showed continuous occupation until the close of the Milling Stone Horizon (Gallegos and Kyle 1988). Additionally, data from several drainages in Camp Pendleton indicate a continued occupation of shell midden sites until the close of the period, indicating that coastal sites were not entirely abandoned during this time (Byrd 1998) (Appendix E-1).

By 5,000 YBP, an inland expression of the La Jolla Complex is evident in the archaeological record, exhibiting influences from the Campbell Tradition from the north. These inland Milling Stone Horizon sites have been termed "Pauma Complex" (True 1958; Warren et al. 1961; Meighan 1954). By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack mollusk remains, have greater tool variety (including atlatl dart points, quarry-based tools, and crescentics), and seem to express a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources. Although originally viewed as a separate culture from the coastal La Jolla Complex (True 1980), it appears that these inland sites may be part of a subsistence and settlement system utilized by the coastal peoples. Evidence from the 4S Project in inland San Diego County suggests that these inland sites may represent seasonal components within an annual subsistence round by La Jolla Complex populations (Raven-Jennings et al. 1996). Including both coastal and inland sites of this time period in discussions of the Encinitas Tradition, therefore, provides a more complete appraisal of the settlement and subsistence system exhibited by this cultural complex (Appendix E-1).

More recent work by Sutton has identified a more localized complex known as the Greven Knoll Complex. The Greven Knoll Complex is a redefined northern inland expression of the Encinitas Tradition first put forth by Mark Sutton and Jill Gardener (2010). Sutton and Gardener (2010: 25) state that "[t]he early millingstone archaeological record in the northern portion of the interior Southern California was not formally named but was often referred to as 'Inland Millingstone,' 'Encinitas,' or even 'Topanga.'" Therefore, they proposed that all expressions of the inland

Milling Stone in Southern California north of San Diego County be grouped together in the Greven Knoll Complex (Appendix E-1).

The Greven Knoll Complex, as postulated by Sutton and Gardener (2010), is broken into three phases and obtained its name from the type-site Greven Knoll located in Yucaipa, California. Presently, the Greven Knoll Site is part of the Yukaipa't Site (SBR-1000) and was combined with the adjacent Simpson Site. Excavations at Greven Knoll recovered manos, metates, projectile points, discoidal cogged stones, and a flexed inhumation with a possible cremation (Kowta 1969: 39). It is believed that the Greven Knoll Site was occupied between 5,000 and 3,500 YBP. The Simpson Site contained mortars, pestles, side-notched points, and stone and shell beads. Based upon the data recovered at these sites, Kowta (1969: 39) suggested that "coastal Milling Stone Complexes extended to and interdigitated with the desert Pinto Basin Complex in the vicinity of the Cajon Pass" (Appendix E-1).

Phase I of the Greven Knoll Complex is generally dominated by the presence of manos and metates, core tools, hammerstones, large dart points, flexed inhumations, and occasional cremations. Mortars and pestles are absent from this early phase, and the subsistence economy emphasized hunting. Sutton and Gardener (2010: 26) propose that the similarity of the material culture of Greven Knoll Phase I and that found in the Mojave Desert at Pinto Period sites indicates that the Greven Knoll Complex was influenced by neighbors to the north at that time. Accordingly, Sutton and Gardener (2010) believe that Greven Knoll Phase I may have appeared as early as 9,400 YBP and lasted until about 4,000 YBP (Appendix E-1).

Greven Knoll Phase II is associated with a period between 4,000 and 3,000 YBP. Artifacts common to Greven Knoll Phase II include manos and metates, Elko points, core tools, and discoidals. Pestles and mortars are present; however, they are only represented in small numbers. Finally, there is an emphasis upon hunting and gathering for subsistence (Sutton and Gardener 2010: 8) (Appendix E-1).

Greven Knoll Phase III includes manos, metates, Elko points, scraper planes, choppers, hammerstones, and discoidals. Again, small numbers of mortars and pestles are present. Greven Knoll Phase III spans from approximately 3,000 to 1,000 YBP and shows a reliance upon seeds and yucca. Hunting is still important, but bones seem to have been processed to obtain bone grease more often in this later phase (Sutton and Gardener 2010: 8) (Appendix E-1).

The shifts in food processing technologies during each of these phases indicate a change in subsistence strategies; although people were still hunting for large game, plant-based foods eventually became the primary dietary resource (Sutton 2011a). Sutton's (2011b) argument posits that the development of mortars and pestles during the middle Holocene can be attributed to the year-round exploitation of acorns as a main dietary provision. Additionally, the warmer and drier climate may have been responsible for groups from the east moving toward coastal populations, which is archaeologically represented by the interchange of coastal and eastern cultural traits (Sutton 2011a) (Appendix E-1).

Late Prehistoric Period (Late Holocene: 1,300 YBP to 1790)

Many Luiseño hold the world view that as a population they were created in Southern California; however, archaeological and anthropological data proposes a scientific/archaeological perspective. Archaeological and anthropological evidence suggests that at approximately 1,350 YBP, Takic-speaking groups from the Great Basin region moved into Riverside County, marking the transition to the Late Prehistoric Period. An analysis of the Takic expansion by Sutton (2009) indicates that inland Southern California was occupied by "proto-Yuman" populations before 1,000 YBP. The comprehensive, multi-phase model offered by Sutton (2009) employs linguistic, ethnographic,

archaeological, and biological data to solidify a reasonable argument for population replacement of Takic groups to the north by Penutians (Laylander 1985). As a result, it is believed that Takic expansion occurred starting around 3,500 YBP moving toward Southern California, with the Gabrielino language diffusing south into neighboring Yuman (Hokan) groups around 1,500 to 1,000 YBP, possibly resulting in the Luiseño dialect (Appendix E-1).

Based upon Sutton's model, the final Takic expansion would not have occurred until about 1,000 YBP, resulting in Vanyume, Serrano, Cahuilla, and Cupeño dialects. The model suggests that the Luiseño did not simply replace Hokan speakers, but were rather a northern San Diego County/southern Riverside County Yuman population who adopted the Takic language. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow between AD 400 and 600 and the introduction of ceramics. Atlatl darts were replaced by smaller arrow darts, including Cottonwood series points. Other hallmarks of the Late Prehistoric Period include extensive trade networks as far-reaching as the Colorado River Basin and cremation of the dead (Appendix E-1).

Protohistoric Period (Late Holocene: 1790 to Present)

Ethnohistoric and ethnographic evidence indicates that three Takic-speaking groups occupied portions of Riverside County: the Cahuilla, the Gabrielino, and the Luiseño. The geographic boundaries between these groups in pre-and proto-historic times are difficult to place, but the project is located well within the borders of ethnographic Luiseño territory. This group was a seasonal hunting and gathering people with cultural elements that were very distinct from Archaic Period peoples. These distinctions include cremation of the dead, the use of the bow and arrow, and exploitation of the acorn as a main food staple (Moratto 1984). Along the coast, the Luiseño made use of available marine resources by fishing and collecting mollusks for food. Seasonally available terrestrial resources, including acorns and game, were also sources of nourishment for Luiseño groups. Elaborate kinship and clan systems between the Luiseño and other groups facilitated a wide-reaching trade network that included trade of Obsidian Butte obsidian and other resources from the eastern deserts, as well as steatite from the Channel Islands (Appendix E-1).

According to Charles Handley (1967), the primary settlements of Late Prehistoric Luiseño Indians in the San Jacinto Plain were represented by Ivahand Soboba near Soboba Springs, Jusipah near the town of San Jacinto, Ararah in Webster's Canyon en route to Idyllwild, Pahsitha near Big Springs Ranch southeast of Hemet, and Corova in Castillo Canyon. These locations share features such as the availability of food and water resources. Features of this land use include petroglyphs and pictographs, as well as widespread milling, which is evident in bedrock and portable implements. Groups in the vicinity of the project site, neighboring the Luiseño, include the Cahuilla and the Gabrielino. Ethnographic data for the three groups is presented below (Appendix E-1).

Ethnographic Setting

Luiseño

When contacted by the Spanish in the sixteenth century, the Luiseño occupied a territory bounded on the west by the Pacific Ocean, on the east by the Peninsular Ranges mountains at San Jacinto (including Palomar Mountain to the south and Santiago Peak to the north), on the south by Agua Hedionda Lagoon, and on the north by Aliso Creek in present-day San Juan Capistrano. The Luiseño were a Takic-speaking people more closely related linguistically and ethnographically to the Cahuilla, Gabrielino, and Cupeño to the north and east rather than the Kumeyaay who occupied territory to the south. The Luiseño differed from their neighboring Takic speakers in having an extensive

proliferation of social statuses, a system of ruling families that provided ethnic cohesion within the territory, a distinct worldview that stemmed from the use of datura (a hallucinogen), and an elaborate religion that included the creation of sacred sand paintings depicting the deity Chingichngish (Bean and Shipek 1978; Kroeber 1976) (Appendix E-1).

Subsistence and Settlement

The Luiseño occupied sedentary villages most often located in sheltered areas in valley bottoms, along streams, or along coastal strands near mountain ranges. Villages were located near water sources to facilitate acorn leaching and in areas that offered thermal and defensive protection. Villages were composed of areas that were publicly and privately (by family) owned. Publicly owned areas included trails, temporary campsites, hunting areas, and quarry sites. Inland groups had fishing and gathering sites along the coast that were intensively used from January to March when inland food resources were scarce. During October and November, most of the village would relocate to mountain oak groves to harvest acorns. The Luiseño remained at village sites for the remainder of the year, where food resources were within a day's travel (Bean and Shipek 1978; Kroeber 1976) (Appendix E-1).

The most important food source for the Luiseño was the acorn, six different species of which were used (*Quercus californica, Quercus agrifolia, Quercus chrysolepis, Quercus dumosa, Quercus engelmannii,* and *Quercus wislizenii*). Seeds, particularly of grasses, flowering plants, and mints, were also heavily exploited. Seed-bearing species were encouraged through controlled burns, which were conducted at least every third year. A variety of other stems, leaves, shoots, bulbs, roots, and fruits were also collected. Hunting augmented this vegetal diet. Animal species taken included deer, rabbit, hare, woodrat, ground squirrel, antelope, quail, duck, freshwater fish from mountain streams, marine mammals, and other sea creatures such as fish, crustaceans, and mollusks (particularly abalone, or *Haliotis* sp.). In addition, a variety of snakes, small birds, and rodents were eaten (Bean and Shipek 1978; Kroeber 1976) (Appendix E-1).

Social Organization

Social groups within the Luiseño nation consisted of patrilinear families or clans, which were politically and economically autonomous. Several clans comprised a religious party, or nota, which was headed by a chief who organized ceremonies and controlled economics and warfare. The chief had assistants who specialized in particular aspects of ceremonial or environmental knowledge and who, with the chief, were part of a religion-based social group with special access to supernatural power, particularly that of Chingichngish. The positions of chief and assistants were hereditary, and the complexity and multiplicity of these specialists' roles likely increased in coastal and larger inland villages (Bean and Shipek 1978; Kroeber 1976; Strong 1929) (Appendix E-1).

Marriages were arranged by the parents, often made to forge alliances between lineages. Useful alliances included those between groups of differing ecological niches and those that resulted in territorial expansion. Residence was patrilocal (Bean and Shipek 1978; Kroeber 1976). Women were primarily responsible for plant gathering and men principally hunted, although, at times, particularly during acorn and marine mollusk harvests, there was no division of labor. Elderly women cared for children and elderly men participated in rituals, ceremonies, and political affairs. They were also responsible for manufacturing hunting and ritual implements. Children were taught subsistence skills at the earliest age possible (Bean and Shipek 1978; Kroeber 1976) (Appendix E-1).

Material Culture

House structures were conical, partially subterranean, and thatched with reeds, brush, or bark. Ramadas were rectangular, protected workplaces for domestic chores such as cooking. Ceremonial sweathouses were important in purification rituals; these were round and partially subterranean thatched structures covered with a layer of mud. Another ceremonial structure was the wámkis (located in the center of the village, serving as the place of rituals), where sand paintings and other rituals associated with the Chingichngish religious group were performed (Bean and Shipek 1978; Kroeber 1976) (Appendix E-1).

Clothing was minimal; women wore a cedar-bark and netted twine double apron and men wore a waist cord. In cold weather, cloaks or robes of rabbit fur, deerskin, or sea otter fur were worn by both sexes. Footwear included deerskin moccasins and sandals fashioned from yucca fibers. Adornments included bead necklaces and pendants made of bone, clay, stone, shell, bear claw, mica, deer hooves, and abalone shell. Men wore ear and nose piercings made from cane or bone, which were sometimes decorated with beads. Other adornments were commonly decorated with semiprecious stones including quartz, topaz, garnet, opal, opalite, agate, and jasper (Bean and Shipek 1978; Kroeber 1976) (Appendix E-1).

Hunting implements included the bow and arrow. Arrows were tipped with either a carved, fire-hardened wood tip or a lithic point, usually fashioned from locally available metavolcanic material or quartz. Throwing sticks fashioned from wood were used in hunting small game, while deer head decoys were used during deer hunts. Coastal groups fashioned dugout canoes for nearshore fishing and harvested fish with seines, nets, traps, and hooks made of bone or abalone shell (Bean and Shipek 1978; Kroeber 1976) (Appendix E-1).

The Luiseño had a well-developed basket industry. Baskets were used in resource gathering, food preparation, storage, and food serving. Ceramic containers were shaped by paddle and anvil and fired in shallow, open pits to be used for food storage, cooking, and serving. Other utensils included wood implements, steatite bowls, and ground stone manos, metates, mortars, and pestles (Bean and Shipek 1978; Kroeber 1976). Additional tools such as knives, scrapers, choppers, awls, and drills were also used. Shamanistic items include soapstone or clay smoking pipes and crystals made of quartz or tourmaline (Bean and Shipek 1978; Kroeber 1976) (Appendix E-1).

Cahuilla

At the time of Spanish contact in the sixteenth century, the Cahuilla occupied territory that included the San Bernardino Mountains, Orocopia Mountain, and the Chocolate Mountains to the west, Salton Sea and Borrego Springs to the south, Palomar Mountain and Lake Mathews to the west, and the Santa Ana River to the north. The Cahuilla are a Takic-speaking people closely related to their Gabrielino and Luiseño neighbors, although relations with the Gabrielino were more intense than with the Luiseño. They differ from the Luiseño and Gabrielino in that their religion is more similar to the Mohave tribes of the eastern deserts than the Chingichngish religious group of the Luiseño and Gabrielino. The following is a summary of ethnographic data regarding this group (Bean 1978; Kroeber 1976) (Appendix E-1).

Subsistence and Settlement

Cahuilla villages were typically permanent and located on low terraces within canyons in proximity to water sources. These locations proved to be rich in food resources and also afforded protection from prevailing winds. Villages had areas that were publicly owned and areas that were privately owned by clans, families, or individuals. Each village was associated with a particular lineage and series of sacred sites that included unique petroglyphs and

pictographs. Villages were occupied throughout the year; however, during a several-week period in the fall, most of the village members relocated to mountain oak groves to take part in acorn harvesting (Bean 1978; Kroeber 1976) (Appendix E-1).

The Cahuilla's use of plant resources is well documented. Plant foods harvested by the Cahuilla included valley oak acorns and single-leaf pinyon pine nuts. Other important plant species included bean and screw mesquite, agave, Mohave yucca, cacti, palm, chia, quail brush, yellowray goldfield, goosefoot, manzanita, catsclaw, desert lily, mariposa lily, and a number of other species such as grass seed. A number of agricultural domesticates were acquired from the Colorado River tribes including corn, bean, squash, and melon grown in limited amounts. Animal species taken included deer, bighorn sheep, pronghorn antelope, rabbit, hare, rat, quail, dove, duck, roadrunner, and a variety of rodents, reptiles, fish, and insects (Bean 1978; Kroeber 1976). (Appendix E-1)

Social Organization

The Cahuilla was not a political nation, but rather a cultural nationality with a common language. Two non-political, non-territorial patrimoieties were recognized: the Wildcats (túktem) and the Coyotes (ístam). Lineage and kinship were memorized at a young age among the Cahuilla, providing a backdrop for political relationships. Clans were composed of 3 to 10 lineages; each lineage owned a village site and specific resource areas. Lineages within a clan cooperated in subsistence activities, defense, and rituals (Bean 1978; Kroeber 1976) (Appendix E-1).

A system of ceremonial hierarchy operated within each lineage. The hierarchy included the lineage leader, who was responsible for leading subsistence activities, guarding the sacred bundle, and negotiating with other lineage leaders in matters concerning land use, boundary disputes, marriage arrangements, trade, warfare, and ceremonies. The ceremonial assistant to the lineage leader was responsible for organizing ceremonies. A ceremonial singer possessed and performed songs at rituals and trained assistant singers. The shaman cured illnesses through supernatural powers, controlled natural phenomena, and was the guardian of ceremonies, keeping evil spirits away. The diviner was responsible for finding lost objects, telling future events, and locating game and other food resources. Doctors were usually older women who cured various ailments and illnesses with their knowledge of medicinal herbs. Finally, certain Cahuilla specialized as traders, who ranged as far west as Santa Catalina and as far east as the Gila River (Bean 1978; Kroeber 1976) (Appendix E-1).

Marriages were arranged by parents from opposite moieties. When a child was born, an alliance formed between the families, which included frequent reciprocal exchanges. The Cahuilla kinship system extended to relatives within five generations. Important economic decisions, primarily the distribution of goods, operated within this kinship system (Bean 1978; Kroeber 1976) (Appendix E-1).

Material Culture

Cahuilla houses were dome-shaped or rectangular, thatched structures. The home of the lineage leader was the largest, located near the ceremonial house with the best access to water. Other structures within the village included the men's sweathouse and granaries (Bean 1978; Kroeber 1976) (Appendix E-1).

Cahuilla clothing, like other groups in the area, was minimal. Men typically wore a loincloth and sandals; women wore skirts made from mesquite bark, animal skin, or tules. Babies wore mesquite bark diapers. Rabbit skin cloaks were worn in cold weather (Bean 1978; Kroeber 1976) (Appendix E-1).

Hunting implements included the bow and arrow, throwing sticks, and clubs. Grinding tools used in food processing included manos, metates, and wood mortars. The Cahuilla were known to use long grinding implements made from wood to process mesquite beans; the mortar was typically a hollowed log buried in the ground. Other tools included steatite arrow shaft straighteners (Bean 1978; Kroeber 1976) (Appendix E-1).

Baskets were made from rush, deer grass, and skunkbrush. Different species and leaves were chosen for different colors in the basket design. Coiled-ware baskets were either flat (for plates, trays, or winnowing), bowl-shaped (for food serving), deep, inverted, and cone-shaped (for transporting), or rounded and flat-bottomed for storing utensils and personal items (Bean 1978; Kroeber 1976) (Appendix E-1).

Cahuilla pottery was made from a thin, red-colored ceramic ware that was often painted and incised. Four basic vessel types are known for the Cahuilla: small-mouthed jars, cooking pots, bowls, and dishes. Additionally, smoking pipes and flutes were fashioned from ceramic (Bean 1978; Kroeber 1976) (Appendix E-1).

Gabrielino

The territory of the Gabrielino at the time of Spanish contact covers much of present-day Los Angeles and Orange counties. The southern extent of this culture area is bounded by Aliso Creek, the eastern extent is located east of present-day San Bernardino along the Santa Ana River, the northern extent includes the San Fernando Valley, and the western extent includes portions of the Santa Monica Mountains. The Gabrielino also occupied several Channel Islands including Santa Barbara Island, Santa Catalina Island, San Nicholas Island, and San Clemente Island. Because of their access to certain resources, including a steatite source from Santa Catalina Island, this group was among the wealthiest and most populous aboriginal groups in all of Southern California. Trade of materials and resources controlled by the Gabrielino extended as far north as the San Joaquin Valley, as far east as the Colorado River, and as far south as Baja California (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Subsistence and Settlement

The Gabrielino lived in permanent villages and occupied smaller resource-gathering camps at various times of the year depending upon the seasonality of the resource. Larger villages were comprised of several families or clans, while smaller, seasonal camps typically housed smaller family units. The coastal area between San Pedro and Topanga Canyon was the location of primary subsistence villages, while secondary sites were located near inland sage stands, oak groves, and pine forests. Permanent villages were located along rivers and streams and in sheltered areas along the coast. As previously mentioned, the Channel Islands were also the locations of relatively large settlements (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Resources procured along the coast and on the islands were primarily marine in nature and included tuna, swordfish, ray and shark, California sea lion, Stellar sea lion, harbor seal, northern elephant seal, sea otter, dolphin and porpoise, various waterfowl species, numerous fish species, purple sea urchin, and mollusks, such as rock scallop, California mussel, and limpet. Inland resources included oak acorn, pine nut, Mohave yucca, cacti, sage, grass nut, deer, rabbit, hare, rodent, quail, duck, and a variety of reptiles such as western pond turtle and numerous snake species (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Social Organization

The social structure of the Gabrielino is little known; however, there appears to have been at least three social classes: (1) the elite, which included the rich, chiefs, and their immediate family; (2) a middle class, which included people of

relatively high economic status or long-established lineages; and (3) a class of people that included most other individuals in the society. Villages were politically autonomous units comprised of several lineages. During times of the year when certain seasonal resources were available, the village would divide into lineage groups and move out to exploit them, returning to the village between forays (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Each lineage had its own leader, with the village chief coming from the dominant lineage. Several villages might be allied under a paramount chief. Chiefly positions were of an ascribed status, most often passed to the eldest son. Chiefly duties included providing village cohesion, leading warfare and peace negotiations with other groups, collecting tribute from the village(s)under his jurisdiction, and arbitrating disputes within the village(s). The status of the chief was legitimized by his safekeeping of the sacred bundle, a representation of the link between the material and spiritual realms and the embodiment of power (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Shamans were leaders in the spirit realm. The duties of the shaman included conducting healing and curing ceremonies, guarding the sacred bundle, locating lost items, identifying and collecting poisons for arrows, and making rain (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Marriages were made between individuals of equal social status and, in the case of powerful lineages, marriages were arranged to establish political ties between the lineages (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Men conducted the majority of the heavy labor, hunting, fishing, and trading with other groups. Women's duties included gathering and preparing plant and animal resources, and making baskets, pots, and clothing (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Material Culture

Gabrielino houses were domed, circular structures made of thatched vegetation. Houses varied in size and could house from one to several families. Sweathouses (semicircular, earth-covered buildings) were public structures used in male social ceremonies. Other structures included menstrual huts and a ceremonial structure called ayuvar, an open-air structure built near the chief's house (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Clothing was minimal; men and children most often went naked, while women wore deerskin or bark aprons. In cold weather, deerskin, rabbit fur, or bird skin (with feathers intact) cloaks were worn. Island and coastal groups used sea otter fur for cloaks. In areas of rough terrain, yucca fiber sandals were worn. Women often used red ochre on their faces and skin for adornment or protection from the sun. Adornment items included feathers, fur, shells, and beads (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

Hunting implements included wood clubs, sinew-backed bows, slings, and throwing clubs. Maritime implements included rafts, harpoons, spears, hook and line, and nets. A variety of other tools included deer scapulae saws, bone and shell needles, bone awls, scrapers, bone or shell flakers, wedges, stone knives and drills, metates, mullers, manos, shell spoons, bark platters, and wood paddles and bowls. Baskets were made from rush, deer grass, and skunkbush. Baskets were fashioned for hoppers, plates, trays, and winnowers for leaching, straining, and gathering. Baskets were also used for storing, preparing, and serving food, and for keeping personal and ceremonial items (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

The Gabrielino had exclusive access to soapstone, or steatite, procured from Santa Catalina Island quarries. This highly prized material was used for making pipes, animal carvings, ritual objects, ornaments, and cooking utensils.

The Gabrielino profited well from trading steatite since it was valued so much by groups throughout Southern California (Bean and Smith 1978; Kroeber 1976) (Appendix E-1).

CHRIS Records Search and Survey

AB 52 defines TCRs as those archaeological sites identified by tribal individuals that are eligible for or listed in the California Register of Historical Resources, or resources that are accompanied by substantial evidence such that the lead agency designates a resource as a TCR. As such, it is appropriate to review identification of prehistoric archaeological resources that have the potential to be identified by consulting tribes as a TCR, by referring to records searches and cultural resources inventories.

An archaeological records search for a one-mile radius around the APE was requested from the EIC at UCR, the results of which were reviewed by Brian F. Smith and Associates, Inc. The EIC records search results identified 241 resources within 1 mile of the APE. The records search indicated that eight of the previously recorded resources are within or directly adjacent to the APE. In all, the prehistoric resources within 1 mile of the APE consist of 16 prehistoric isolates and 200 prehistoric bedrock milling sites, five of which contained associated prehistoric artifacts, one prehistoric artifact scatter, and one multicomponent site containing a prehistoric milling site and a historic residence. The historic resources consist of 11 residences, one historic elementary school, one historic ranch, three historic foundation sites, two historic railroad alignments, two historic isolates, and five historic trash scatters. The remaining site is multicomponent and consists of a prehistoric milling site and a historic residence. Of the eight resources recorded within or in proximity to the APE, seven are prehistoric bedrock milling sites (CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819), and one is a prehistoric isolate (P-33-012662) (Appendix E-1).

An archaeological survey of the Project APE was conducted on July 26 and 27, 2021. The survey confirmed the presence of six previously recorded prehistoric bedrock milling sites (CA-RIV-4067, CARIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819), which all appeared to be in the same condition as when they were last recorded. The prehistoric isolate, P-33-012662 was not identified in its previously recorded location, however, eight additional prehistoric bedrock milling sites (Temp-2, Temp-3, and Temp-9 through Temp-15) were identified within or directly adjacent to the Project APE (Appendix E-1).

Brian F. Smith and Associates Inc. returned to the Project APE on June 6 and 7, 2022, to conduct additional detailed mapping and documentation of the resources within and directly adjacent to the proposed Project to identify which sites and features would be impacted by the proposed Project. Tribal representatives from the Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians and March JPA were also present during this mapping and documentation effort. The previous documentation of sites CA-RIV-5421, CA-RIV-5811, Features 8 and 9 of Site CA-RIV-5812, and CA-RIV-5819 were accurate and complete for a comprehensive inventory level study and no additional work was conducted at the sites. However, the site forms for CA-RIV-4067, CA-RIV-4068, and CA-RIV-5420 were not entirely correct or lacked details, such as feature sketches and measurements of the features. This additional work was also completed at sites Temp-2, Temp-3, and Temp-9 through Temp-15. At the request of March JPA as the Lead Agency, no testing or significance evaluation was allowed to take place. Due to the lack of subsurface testing data, the boundaries for the newly recorded sites are incompletely defined (Appendix E-1).

As a result of the archaeological efforts, five previously recorded prehistoric sites, CA-RIV-4067 and CA-RIV-5421, and portions of CA-RIV-5420, CA-RIV-5812, and CA-RIV-5819, and nine newly recorded prehistoric sites, Temp-2, Temp-3, and Temp-9 through Temp-15, would either be directly or indirectly impacted by the proposed Project. Sites CA-RIV-5811, CA-RIV-4068, portions of sites CA-RIV-5812, CA-RIV-5819, and CA-RIV-5420 fall outside of the limits

of direct or indirect impacts and are assumed to be preserved. Site Temp-9 falls within the development envelope but may ultimately end up preserved within open space. To minimize impacts, an attempt to preserve in-place for features within proposed open space areas or within areas of indirect impact would be made. In addition, features within the area of direct impact that would be in areas of fill are proposed to be covered with fill soil. Features directly within the grading cuts are proposed to be relocated to open space (Appendix E-1).

Of the sites to be impacted, only Site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP. Although the remaining previously recorded sites, CA-RIV-4067, CA-RIV-5420, CA-RIV-5812, and CA-RIV-5819, have previously been evaluated as not eligible for inclusion in the NRHP, they were never tested for subsurface components and the prior evaluations do not meet the current industry standards. In the absence of the data required to fully identify each site's potential significance, all sites that will be directly and indirectly impacted must be considered eligible for the CRHR and the NRHP (Appendix E-1). All prehistoric resources identified within or directly adjacent to the Project APE are summarized in Table 4.16.1.

Table 4.16-1. Prehistoric Resources Located Within or Directly Adjacent to the Project APE

Site	Age	Description	NRHP Eligibility
CA-RIV-4067	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
CA-RIV-4068	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
CA-RIV-5420	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
CA-RIV-5421	Prehistoric	Bedrock Milling Site	Not eligible
CA-RIV-5811	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
CA-RIV-5812	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
CA-RIV-5819	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
Temp-2	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
Temp-3	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
Temp-9	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
Temp-10	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
Temp-11	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
Temp-12	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
Temp-13	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
Temp-14	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible
Temp-15	Prehistoric	Bedrock Milling Site	Not evaluated; assumed eligible

Native American Coordination and Consultation

Native American Heritage Commission Sacred Lands File Search

Brian F. Smith and Associates Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC) to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance are present within 1 mile of the APE. The SLF search results did not indicate the presence of any sacred sites or locations of religious or ceremonial importance within the APE.

At the direction of March JPA, Brian F. Smith and Associates contacted the Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians to solicit their involvement with the proposed Project. A site visit with the representatives from both tribes and March JPA was conducted on February 16, 2022. The local tribal governments suggested the presence of a Traditional Cultural Property (TCP) and potentially a Traditional Cultural Landscape

(TCL) within the vicinity or overlapping the APE. However, the recorded boundary of a potential TCP/TCL was not fully identified or formally presented to Brian F. Smith and Associates Inc. Since the boundary of the potential TCP/TCL is unknown, effects cannot be determined without direct consultation with the local Native American tribes through government-to-government consultation. (Appendix E-1).

This coordination was conducted for informational purposes only and does not necessarily constitute formal government-to-government consultation as specified by AB 52 and Senate Bill (SB) 18. AB 52 and SB 18 consultation efforts conducted by March JPA are discussed in the following paragraphs.

Assembly Bill 52 Consultation

The Project is subject to compliance with AB 52 (California Public Resources Code [PRC], Section 21074), which requires consideration of impacts to TCRs as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the proposed Project. All NAHC-listed California Native American Tribal representatives that have requested Project notification pursuant to AB 52 were sent letters by March JPA on November 10, 2021 (see Table 4.16-2). The letters contained a Project description, outline of AB 52 timing, request for consultation, and contact information for the appropriate lead agency representative. The tribal consultation window under AB 52 closed on December 12, 2021. On November 17, 2021, March JPA received a letter requesting consultation with the Soboba Band of Luiseño Indians, and identifying that although the Project site is outside their existing reservation, the Project area does fall within the bounds of their Tribal Traditional Use Areas and is considered extremely sensitive by the people of Soboba. The consultation meeting with the Soboba Band of Luiseño Indians was held on December 9, 2021. On December 21, 2021, March JPA provided an exhibit identifying the location of cultural resources on the grading plan and an exhibit showing the location of the resources on an aerial map to the Soboba Band of Luiseño Indians.

On November 24, 2021, March JPA received a request for consultation from the Pechanga Band of Luiseño Indians, which stated that the Project site is within a Traditional Cultural Property and that it contains additional TCRs. The consultation meeting with the Pechanga Band of Luiseño Indians was held on December 20, 2021. On January 19, 2022, March JPA provided a supplemental resource map to Pechanga Band of Luiseño Indians identifying resources in proximity to Brown Street.

On January 11, 2022, March JPA received a request from the Agua Caliente Band of Cahuilla Indians for the cultural report, site records, search from the information center, and survey records. Consultation was not requested, and all information was transmitted to the Agua Caliente Band of Cahuilla Indians on January 19, 2022.

After additional communications between March JPA, the Soboba Band of Luiseño Indians, and Pechanga Band of Luiseño Indians during January 2022, it was determined that a site walk with both tribes would be scheduled for February 16, 2022. During the walk, it was agreed that March JPA would issue a right of entry for the tribes to survey additional portions of the Project area, especially at the southeast portion of the Conservation Easement, and the developer would mark the limits of the grading and right-of-way, especially the eastern portion where the Cactus Avenue extension was planned in areas proximate to Native American resources. A right-of-entry form was prepared for additional surveying by the Pechanga Band of Luiseño Indians in coordination with the Soboba Band of Luiseño Indians. On July 6, 2022, March JPA provided an exhibit to the tribes showing how resources could be retained in place, buried, or moved to the adjacent open space area. A field meeting with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians was held on September 15, 2022, to discuss the disposition of the resources. The tribes and March JPA agreed that the consultant would prepare a draft Testing Plan for review

to determine the boundaries of four resources sites, the developer would stake the limits of the Cactus Avenue and Barton Street grading and right-of-way limits, the timing of the staking would be coordinated with the tribes so the tribes would walk the Project area after staking, and the incorporation of any geospatial data provided by the tribes for resources. On October 11, 2022, March JPA provided the draft Testing Plan to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians, and confirmed that once the Testing Plan was approved, the developer would stake the limits of grading along Cactus Avenue and Barton Street. The draft Testing Plan is currently in review with the tribes. Documents related to AB 52 consultation are on file with March JPA.

Table 4.16-2. Assembly Bill 52/Senate Bill 18 Native American Heritage Commission–Listed Native American Contacts

Native American Tribal Representatives	Tribe
Patricia Garcia	AB 52: Agua Caliente Band of Cahuilla Indians
Ebru Ozdil	AB 52: Pechanga Band of Luiseño Indians
Joseph Ontiveros	AB 52: Soboba Band of Luiseño Indians
Patricia Garcia-Plotkin	SB 18: Agua Caliente Band of Cahuilla Indians
Jeff Grubbe	SB 18: Agua Caliente Band of Cahuilla Indians
Amanda Vance	SB 18: Augustine Band of Cahuilla Indians
Doug Welmas	SB 18: Cabazon Band of Mission Indians
Daniel Salgado	SB 18: Cahuilla Band of Indians
Ray Chapparosa	SB 18: Los Coyotes Band of Cahuilla Indians
Robert Martin	SB 18: Moronga Band of Mission Indians
Ann Brierty	SB 18: Moronga Band of Mission Indians
Shasta Gaughen	SB 18: Pala Band of Mission Indians
Mark Macarro	SB 18: Pechanga Band of Luiseño Indians
Jill McCormick	SB 18: Quechan Tribe of the Fort Yuma Reservation
Joseph Hamilton	SB 18: Ramona Band of Luiseño Indians
Bo Mazzetti	SB 18: Rincon Band of Luiseño Indians
Cheryl Madrigal	SB 18: Rincon Band of Luiseño Indians
Lovina Redner	SB 18: Santa Rosa Band of Cahuilla Indians
Joseph Ontiveros	SB 18: Soboba Band of Luiseño Indians
Isaiah Vivanco	SB 18: Soboba Band of Luiseño Indians
Thomas Tortez	SB 18: Torres-Martinez Desert Cahuilla Indians

Senate Bill 18 Consultation

According to SB 18 (Government Code Section 65352.3), March JPA has a responsibility to initiate consultation with tribes/groups listed on the California NAHC's official SB 18 contact list for amendment of its General Plan or any Specific Plan. SB 18 requires March JPA to send a letter to each contact on the NAHC's SB 18 list, extending an invitation for consultation. Tribes have 90 days from receipt of the letter to request consultation. March JPA must also send a notice to all contacts at least 45 days prior to adopting the amended General Plan/Specific Plan, as well as a third notice 10 days prior to any public hearing regarding the General Plan/Specific Plan amendment. March JPA sent notification of the proposed Project to all California Native American tribal representatives that have requested Project notifications pursuant to SB 18 and that are on file with the NAHC as being traditionally or culturally affiliated with the geographic area on December 18, 2021 (see Table 4.16-2). These notification letters included a Project description and inquired if the tribe would like to consult on the proposed Project. On February 16, 2022, March JPA received a request for consultation from the Rincon Band of Luiseño Indians, which was held

on April 12, 2022. The Rincon Band of Luiseño Indians requested to stay informed on the Project but deferred to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians regarding all monitoring and details of the Project. A mitigation plan identifying resources that would be avoided/remain in place, relocated to the conservation area, and resources that would be capped and buried in place was provided to the Rincon Band of Luiseño Indians on July 7, 2022. On August 18, 2022, March JPA invited the Rincon Band of Luiseño Indians to the scheduled September 15, 2022, site walk with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians to discuss the disposition of resources, and on September 10, 2022, the Rincon Band of Luiseno Indians deferred the disposition of resources to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians. Additionally, the Quechan Tribe of the Fort Yuma Reservation identified in a letter dated December 20, 2021, that they have no comments regarding the Project, and they defer to more local tribes and support their decisions on the projects. Documents related to SB 18 consultation are on file with March JPA.

4.16.2 Relevant Plans, Policies, and Ordinances

State

California State Assembly Bill 52

AB 52 was approved by Governor Jerry Brown, Jr., on September 25, 2014. AB 52 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that TCRs must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. PRC Section 21074 describes a TCR as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A TCR is defined as follows:

(a) Tribal cultural resources are either of the following:
  (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
    (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
  (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1 In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the Project area, including 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. Section 1(b)(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 PRC Section 21080.3.2, 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]).

California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, 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 can occur until the county coroner has examined the remains (California Health and Safety Code Section 7050.5[b]). PRC Section 5097.98 also outlines the process to be followed in the event that Native American remains are discovered. 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 (California Health and Safety Code Section 7050.5[c]). The NAHC will notify the "most likely descendant." With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

California Public Resources Code Section 5097.98

PRC Section 5097.98 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. It has been incorporated into Section 15064.5(e) of the CEQA Guidelines. The proposed Project would be required to comply with PRC Section 5097.98 should any unknown human remains be discovered during site disturbance.

California Public Resources Code, Sections 5097.5 and 30244

PRC Section 5097.5 prohibits "knowing and willful" removal, destruction, injury, defacement, and excavation upon any historic or prehistoric ruins, burial grounds, or archaeological or vertebrate paleontological site situated on public lands (lands under state, county, city, district, or public authority ownership or jurisdiction, or the ownership or jurisdiction of a public corporation), except where the agency with jurisdiction has granted express permission. PRC Section 30244 requires reasonable mitigation for impacts on archaeological or paleontological resources that occur as a result of development.

Senate Bill 18

California Senate Bill 18, which took effect on March 1, 2005, requires local (city and county) governments to consult with California Native American tribes identified by the NAHC for the purpose of protecting, and/or mitigating impacts to cultural places in creating or amending general plans, including specific plans (Government Code Section 65352.3).

4.16.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to Tribal Cultural Resources are based on March JPA 2022 CEQA Guidelines. According to the March JPA CEQA Guidelines, a significant impact related to Tribal Cultural Resources would occur if the Project would (March JPA 2022):

CUL-1: Cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC, Section 21074, as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC, Section 5020.1(k), or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC, Section 5024.1(c). In applying the criteria set forth in PRC, Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

4.16.4 Methodology

The areas covered by the Project site have recently been the subject of CEQA review by Brian F. Smith and Associates (Appendix E-1). The results of the records search and pedestrian survey, which were reviewed earlier in this section, identified 14 prehistoric sites, CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-15, that would either be directly or indirectly impacted by the proposed Project. Of the sites to be impacted, only Site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP. Typically, archaeological testing and evaluation in compliance with NHPA, Section 106, the NEPA of 1969, and CEQA would be conducted at any resource that would be directly or indirectly impacted. However, March JPA has indicated that no testing or evaluation may take place at this time. In the absence of the data required to fully identify each site's potential significance, all sites that will be directly and indirectly impacted must be considered eligible for the CRHR and the NRHP. Since these sites are considered eligible for the CRHR and the NRHP, they meet the first threshold of site significance under AB 52 to be considered a TCR.

On November 17, 2021, March JPA received a letter requesting AB-52 consultation with the Soboba Band of Luiseño Indians, which was subsequently held on December 9, 2021. Similarly, on November 24, 2021, March JPA received a request for AB 52 consultation from the Pechanga Band of Luiseño Indians, which was subsequently held on December 20, 2021. Prior to the consultation meetings, the cultural resources study for the project and all site records were transmitted to Soboba and Pechanga. As a result of the consultation meetings, representatives of the Soboba Band of Luiseño Indians and Pechanga Band of Luiseño Indians walked the site with March JPA officials and representatives of Brian F. Smith and Associates on February 16, 2022. The tribes (Soboba and Pechanga) requested follow-up surveys, and a right-of-entry was granted on July 22, 2022. On September 15, 2022,

a field meeting occurred with representatives of Soboba, Pechanga, Brian F. Smith, March JPA, and the project developer to review the resources, and determine which can be avoided, which can be buried, and which can be relocated to the adjacent 445-acre Conservation Easement. March JPA, with the tribes' concurrence, is reviewing a testing plan to clarify the significance of the identified resources. No archaeological work will be conducted without input from the tribes and without a tribal representative present.

On February 16, 2022, March JPA received a request for SB 18 consultation from the Rincon Band of Luiseño Indians, which was held on April 12, 2022. During the discussions, the Rincon Band of Luiseño Indians requested that Pechanga and Soboba take the lead in reviewing the disposition of the resources, and that Rincon be kept informed regarding the outcome of the consultation with those tribes.

4.16.5 Impacts Analysis

Threshold TCR-1(i). ***Would the Project cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074, as either a site, feature, place, or cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC, Section 5020.1(k)?***

and

Threshold TCR-1(ii). ***Would the Project cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074, as either a site, feature, place, or cultural landscape that is geographically defined in terms of 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 PRC, Section 5024.1(c)? In applying the criteria set forth in PRC, Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.***

Under CEQA, an effect to a tribal cultural resource is considered a "substantial adverse change," if it is shown that the change would materially impair the significance of the tribal cultural resource. That is, a project that demolishes or materially alters in an adverse manner those physical characteristics of a TCR conveying its historic significance would materially impair the significance of a historical resource. Therefore, such a change would constitute a "substantial adverse change" under CEQA.

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Construction

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Specific Plan Area also includes a 60.28-acre park west of the Barton Street

extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The Specific Plan Area also includes installation of utility and roadway networks connecting to and throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank.

As discussed in Section 4.4 Cultural Resources, Appendix E-1 and described above, the EIC records search results identified eight resources within the APE, seven are prehistoric bedrock milling sites (CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819), and one is a prehistoric isolate (P-33-012662). The pedestrian survey confirmed the presence of six previously recorded prehistoric bedrock milling sites (CA-RIV-4067, CARIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819), which all appeared to be in the same condition as when they were last recorded. The prehistoric isolate, P-33-012662 was not identified in its previously recorded location, however, eight additional prehistoric bedrock milling sites (Temp-2, Temp-3, and Temp-9 through Temp-15) were identified within or directly adjacent to the APE (Appendix E-1).

As detailed in Appendix E-1, a review of the SLF by the NAHC was conducted to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance were present within one mile of the APE. The SLF search results did not indicate the presence of any sacred sites or locations of religious or ceremonial importance within the APE.

Two tribes, the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians consulted with March JPA under AB 52. A field meeting with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians was held on September 15, 2022, to discuss the disposition of the resources. On October 11, 2022, March JPA provided the draft Testing Plan to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians to clarify the significance of the identified resources. No archaeological work will be conducted without input from the tribes and without a tribal representative present. Approval and implementation of the Testing Plan is included as **Mitigation Measure (MM)-CUL-1**, described in further detail below.

Currently, the areas covered by the Project site have recently been the subject of CEQA evaluation by Brian F. Smith and Associates (Appendix E-1). The results of the records search and pedestrian survey, which were reviewed earlier in this section, identified 14 prehistoric sites, CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-15, that would either be directly or indirectly impacted by the proposed Project. Of the sites to be impacted, only Site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP. Because these sites are considered eligible for the CRHR and the NRHP, they meet the first threshold of site significance under AB 52 to be considered a TCR. As such, in an abundance of caution and to avoid any immediate potential impacts to these sites related to disturbance from testing, the March JPA has taken the conservative approach of concluding that the proposed Project may result in a direct or indirect adverse impact, or adverse effect, to TCRs. Furthermore, implementation of the proposed Project could result in an inadvertent discovery of TCRs during grading and excavation activities. Mitigation measures are necessary to mitigate potential impacts that would focus on either preservation and avoidance or upon data recovery excavations to exhaust the research potential of the sites.

With implementation of **MM-CUL-1**, an Archaeological Testing Plan (ATP) approved by the tribes, would fully document the boundaries of the sites within or directly adjacent to the Project APE, determine the resource's potential for inclusion in the CRHR, and ensure adequate mitigation measures are set forth for their respective resources, in consultation with the tribes. Under **MM-CUL-2**, a Cultural Resources Monitoring Plan (CRMP) would be prepared to detail the methods and procedures for avoidance and protection measures for cultural resources and

procedures for the inadvertent discovery of unrecorded cultural resources. **MM-CUL-3** would require March JPA to confirm adequate provisions are in place within Contractor Specifications prior to issuance of any grading permit. **MM-CUL-4** would require a Worker's Environmental Awareness Program (WEAP) training for all construction personnel to learn the proper identification and treatment of inadvertent discoveries and under **MM-CUL-5**, cultural resources construction monitoring with an archaeologist and Native American monitor(s), as outlined in the CRMP, would ensure no impacts would occur to existing resources and inadvertent discoveries. The implementation of environmental sensitive areas (ESAs) though **MM-CUL-6** would prevent disturbances to the features recommended to be preserved in place. Implementation of **MM-CUL-7** would ensure inadvertent discovery of archaeological resources unearthed during excavation and grading activities would be avoided, evaluated, and consulted as necessary to reduce potentially significant impacts and **MM-CUL-8** would document the monitoring activities conducted and describe how each mitigation measure was fulfilled.

However, even with the application of **MM-CUL-1** through **MM-CUL-8**, a substantial adverse change to TCRs (as defined in PRC Section 21074) includes physical demolition, destruction, relocation, or alteration of the resource such that the significance of the resource would be materially impaired. As such, impacts of the construction of the proposed Specific Plan Area to TCRs would be **significant and unavoidable**.

Operation

Impacts are expected to occur during construction within the Specific Plan Area. As such, operational impacts associated with the proposed Specific Plan Area would generally be confined to the same areas impacted by construction. Operation of the Specific Plan Area would not involve ground-disturbing activities that could impact TCRs pursuant to CEQA Guidelines Section 15064.5, therefore, impacts would be **less than significant**, and no mitigation is required.

Conservation Easement

Under the Project, a Conservation Easement would be established, consistent with the terms of the CBD Settlement Agreement (Appendix S). No land disturbances or changes to the land within the Conservation Easement would occur. As such, **no impacts** to tribal cultural resources would occur within the Conservation Easement.

4.16.6 Mitigation Measures

MM-CUL-1 Archaeological Testing Plan (ATP)

Prior to the issuance of any grading permits, the project applicant shall submit an ATP, approved by the consulting tribes (Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians), that details the procedures to fully document the boundaries of resources within or directly adjacent to the APE (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5421, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-15), determine the resource's potential for inclusion in the CRHR, and ensure adequate mitigation measures are set forth for their respective resources, in consultation with the tribes.

The testing program shall avoid any unnecessary excavation of significant deposits, should they be discovered, to minimize archaeological impacts to the site. This testing would only occur at these specific resources along the periphery of the area of impact. The number of shovel test pits (STPs)

will vary, with an anticipated range of four to 15 per site. During all field studies, a representative from Pechanga and Soboba will be requested to participate in and monitor the testing program.

MM-CUL-2 Cultural Resources Monitoring Plan (CRMP)

After implementation of the ATP and prior to the issuance of any grading permits, the project applicant shall prepare a CRMP to explicitly detail the methods and procedures for avoidance and protection measures for cultural resources and the procedures for the inadvertent discovery of unrecorded cultural resources. This CRMP shall include but not be limited to the following guidelines:

- The CRMP shall be prepared by an archaeologist meeting the Secretary of the Interior Standards, in consultation with consulting tribe(s) (Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians), the developer, and March JPA, and completed prior to any development within the APE.
- All ground disturbing activities within the Project shall be monitored by a qualified archaeologist and Native American monitor(s).
- The monitoring frequency and coverage area may be adjusted based on observed sensitivity for encountering cultural resources by the qualified archaeologist in consultation with the tribes and March JPA.
- If any human remains are discovered, the Riverside County Coroner and March JPA shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), shall be contacted in order to determine proper treatment and disposition of the remains.
- All ground disturbing activities within 10 to 15 feet of a recorded archaeological feature shall be conducted in a controlled fashion, slowly and deliberately, to ensure any potential subsurface resources will be identified.
- The CRMP shall include the mitigation measures developed in consultation with the tribes after implementation of the ATP.

MM-CUL-3 Contractor Specifications

Following the completion of the ATP and CRMP and prior to issuance of any grading permit, the Project applicant shall provide evidence, to March JPA's satisfaction, that the approved provisions/recommendations as determined in the CRMP are included in Contractor Specifications. The specifications shall include but not be limited to the following:

- "The features outside of the area of direct impact (CA-RIV-4068 Feature A; CA-RIV-5420 Features A, B, C, D, and E; CA-RIV-5421 Feature 1; CA-RIV-5811 Features 1 and 2; CA-RIV-5812 Features 8 and 9; CA-RIV-5819 Features 1, 2, and 3; Temp-9 Feature A; and Temp-14 Feature A) shall be preserved."
- The Contractor Specifications shall include the mitigation measures developed in consultation with the tribes after implementation of the ATP.
- "Controlled grading within 10 to 15 feet of a recorded archaeological feature shall be implemented."
- "Should any cultural resources be discovered during earth-moving activities, no further grading shall occur in the area of the discovery until the Planning Director is satisfied that adequate

provisions are in place to evaluate and protect these resources." This condition and the approved provisions/recommendations as determined in the CRMP, shall be incorporated on the cover sheet of the grading plan.

MM-CUL-4 Workers Environmental Awareness Program (WEAP) Training

An archaeologist meeting the Secretary of the Interior Standards and Native American monitor(s) shall attend a pre-grading meeting to conduct a WEAP training regarding cultural and archaeological sensitivity for all construction personnel and monitors who are not trained archaeologists. A PowerPoint presentation and handout or pamphlet shall be prepared to ensure proper identification and treatment of inadvertent discoveries. 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 and tribal cultural resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources, tribal cultural resources, or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor, archaeological monitor and tribal monitor(s).

MM-CUL-5 Native American and Archaeological Monitoring

A Native American Monitor and Secretary of Interior Qualified Archaeologist shall be present during all earth-moving construction activities. At least 30 days prior to issuance of grading permits, separate agreements shall be developed with each monitoring Native American Tribes, addressing the roles of the Developer/Applicant, the Qualified Archaeologist, and the Consulting Tribe(s). The Developer/Applicant shall submit fully executed copies of the following to the March JPA: (1) the contract for the retention of an archaeologist; (2) the contract between the Tribe(s) for Tribal monitoring; (3) the contract between the Tribe(s) and the land owner/Applicant/Developer for the monitoring of the Project construction. Archaeological monitoring shall occur as outlined in the CRMP.

MM-CUL-6 Avoid Environmentally Sensitive Areas (ESA).

Prior to the issuance of grading permits, all features recommended to be preserved in place shall be fenced off with construction fencing and identified as ESAs to ensure Project personnel do not disturb the features. Specific requirements pertaining to the avoidance buffer, style, materials, access, maintenance, and other requirements shall be provided within the CRMP.

MM-CUL-7 Inadvertent Discovery of Archaeological Resources

In the event that archaeological resources or tribal cultural resources are inadvertently unearthed during excavation and grading activities for the Project, the contractor shall cease all earth-disturbing activities within a 100-foot radius of the area of discovery. The Project cultural resources professionals, including the appropriate tribe(s), shall evaluate the significance of the find and determine the appropriate course of action. If avoidance of the resources is not feasible, salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed and shall take into account tribal preferences and sensitivity concerns. After the find has been appropriately avoided or mitigated and cleared by March JPA, the Project cultural resources

professional and, if applicable, the Native American monitor(s), work in the area may resume. Pursuant to California Public Resources Code Section 21083.2(b), avoidance is the preferred method of preservation for archaeological resources. If the Developer, the Project archaeologist and the Native American Monitor(s) cannot agree on the significance or the mitigation for such resources, these issues will be presented to the March JPA Planning Director for decision. The March JPA Planning Director shall make a determination based on the provisions of CEQA with respect to archaeological and tribal cultural resources and shall take into account the religious beliefs, customs, and practices of the appropriate Native American tribes. Notwithstanding any other rights available under the law, the decision of the March JPA Planning Director shall be appealable to the March JPA Commission.

If potentially significant features or sites are discovered, an Evaluation Plan shall be developed by the Project archaeologist and the applicable Native American representative and shall contain, at a minimum, a research design and field methodology designed to address the criteria outlined in the CRHR. If a site is determined to be significant, as confirmed by March JPA, data recovery excavations may be necessary unless the resource is avoided and preserved/protected in place. Evaluation and treatment shall be supervised by an individual or individuals that meet the Secretary of the Interior's Professional Qualification Standards. If the Tribe(s) disagree with regard to the determined significance of the discovery and/or the proposed management strategy for a cultural resource of Native American origin or cultural importance, these issues will be presented to the March JPA Planning Director for decision. The March JPA Planning Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the Project's archaeological Principal Investigator and shall consider the cultural and religious practices of the Tribe(s). Notwithstanding any other rights available under the law, the decision of the March JPA Planning Director shall be appealable to the March JPA Commission.

MM-CUL-8 Archaeological Monitoring Report

A report, prepared by an archaeologist meeting the Secretary of the Interior Standards, documenting monitoring activities conducted by a qualified archaeologist and Native American monitor(s) shall be submitted to March JPA within 60 days of completion of grading or other Project-related activities with the potential to impact archaeological or tribal cultural resources. This report shall document the known resources on the property, describe how each mitigation measure was fulfilled, and document the type of cultural resources recovered and the disposition of such resources. The report will be submitted to March JPA, the Eastern Information Center, and the appropriate tribe(s).

4.16.7 Level of Significance After Mitigation

As discussed above, multiple cultural resources sites (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CARIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 through Temp-15) were identified in the APE. Only site CA-RIV-5421 has been thoroughly tested and evaluated as not eligible for the NRHP, the remaining sites were never tested. Because these sites are considered eligible for the CRHR and the NRHP, they meet the first threshold of site significance under AB 52 to be considered a TCR. As such, the proposed Project may result in a direct or indirect adverse impact, or adverse effect, to the resources.

The following mitigation measures would reduce potentially significant impacts to TCRs. **MM-CUL-1** requires the implementation of an ATP approved by the tribes, which would fully document the boundaries of the sites within or directly adjacent to the Project APE, determine the resource's potential for inclusion in the CRHR, and ensure adequate mitigation measures are set forth for their respective resources, in consultation with the tribes. Following the completion of **MM-CUL-1**, a CRMP, included as **MM-CUL-2**, shall be prepared to explicitly detail the methods and procedures for avoidance and protection measures for cultural resources and procedures for the inadvertent discovery of unrecorded cultural resources. **MM-CUL-3** requires adequate provisions are in place within Contractor Specifications prior to issuance of any grading permit.

MM-CUL-4 requires all construction personnel to be trained in the proper identification and treatment of inadvertent discoveries. The implementation of cultural resources construction monitoring, included as **MM-CUL-5**, would ensure no impacts would occur to existing resources or inadvertent discoveries. Additionally, the implementation of ESAs though **MM-CUL-6** would prevent disturbances to the features recommended to be preserved in place. Furthermore, implementation of **MM-CUL-7** would ensure inadvertent discovery of archaeological resources unearthed during excavation and grading activities would be avoided, evaluated, and consulted as necessary to reduce potentially significant impacts. **MM-CUL-8** would document the monitoring activities conducted and describe how each mitigation measure was fulfilled.

A substantial adverse change to TCRs includes physical demolition, destruction, relocation, or alteration of the resource such that the significance of the resource would be materially impaired. However, even with the application of **MM-CUL-1** through **MM-CUL-8,** the Project would result in potentially significant impacts to CRHR and NRHP-eligible resources, which meet the first threshold of site significance under AB 52 to be considered a TCR. Therefore, impacts to TCRs would remain **significant and unavoidable.**

4.16.8 Cumulative Effects

The cumulative impact analysis on TCRs considers whether impacts of the proposed Project together with other related projects identified within the vicinity of the Project site, when taken as a whole, substantially diminish the number of TCRs within the same or similar context or property type. Fifty-one cumulative projects have been identified under Table 4-2, Related Projects, of Chapter 4, Environmental Analysis, of this EIR. However, impacts to TCRs, if any exist, tend to be site-specific and identified through government-to-government consultations. Cumulative projects are reviewed separately and would also be subject to the same requirements of CEQA and AB52. Impacts to TCRs would be addressed on a case-by-case basis and would be mitigated to the extent practicable in accordance with CEQA. Given that the Project would result in significant and unavoidable impacts to TCRs, even with the incorporation of mitigation, the proposed Project **would cumulatively contribute to a significant impact** associated with TCRs.

4.16.9 References Cited

Bean, Lowell John. 1978. Cahuilla. In Handbook of North American Indians, Vol. 8. California, edited by Robert F. Heizer. Smithsonian Institution, Washington, D.C.

Bean, Lowell John and Charles R. Smith. 1978. Serrano. *Handbook of North American Indians* Vol. 8. California. Smithsonian Institution, Washington, D.C.

Bean, Lowell John and Florence C. Shipek. 1978. Luiseño. In *Handbook of North American Indians* (Vol. 8), California, edited by R.F.Heizer. Smithsonian Institution, Washington, D.C.

Byrd, Brian F. 1998. Harvesting the Littoral Landscape During the Late Holocene: New Perspectives from Northern San Diego County. *Journal of California and Great Basin Anthropology* 20(2):195–218.

Erlandson, Jon M. and Roger H. Colten (editors). 1991. An Archaeological Context for Early Holocene Sites on the California Coast. In *Hunter-Gatherers of Early Holocene Coastal California*, edited by Jon M. Erlandson and Roger H. Colten, pp. 101–111. Perspectives in California Archaeology 1. Institute of Archaeology, University of California, Los Angeles.

Fagan, B. 1991. Ancient North America: The Archaeology of a Continent. Thames and Hudson. London.

Gallegos, Dennis. 1987. A Review and Synthesis of Environmental and Cultural Material for the Batiquitos Lagoon Region. In *San Dieguito-La Jolla: Chronology and Controversy*. Editor. San Diego County Archaeological Society Research Paper 1.

Gallegos, Dennis. 1992. Patterns and Implications of Coastal Settlement in San Diego County: 9000 to 1300Years Ago. In *Essays on the Prehistory of Maritime California*, edited by Terry Jones. Center for Archaeological Research, Davis, California.

Gallegos, Dennis R. and Carolyn E. Kyle. 1988. Five Thousand Years of Maritime Subsistence at Ballast Point Prehistoric Site SDI-48 (W-164) San Diego, California. Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

Handley, Charles. 1967. The Sun City Story. *Sun City News.* Sun City, California.

Koerper, Henry, C., Jonathan E. Ericson, Christopher E. Drover, and Paul E. Langenwalter, II. 1986. Obsidian Exchange in Prehistoric Orange County. *Pacific Coast Archaeological Society Quarterly* 22 (1):33-69.

Kowta, M. 1969. The Sayles Complex: A Late Milling Stone Assemblage from Cajon Pass and the Ecological Implications of Scraper Planes. University of California Publications in *Anthropology* 6.

Kroeber, A.L. 1976. *Handbook of the Indians of California.* Reprinted. Dover Editions, Dover Publications, Inc., New York. Originally published 1925, Bulletin No. 78, U.S.

Laylander, Don (editor). 1985. Some Linguistic Approaches to Southern California's Prehistory. *San Diego State University Cultural Resource Management Casual Papers* 2(1):14–58.

March JPA. 2022. *Local Guidelines for Implementing the California Environmental Quality Act for March Joint Powers Authority and March Inland Port Airport Authority and Successor Agency of the Former March Joint Power Redevelopment Agency and March Joint Powers Utilities Authority*. https://www.marchjpa.com/documents/docs_forms/05172022_MJPA_2022_CEQA_Guidelines.pdf.

Martin, P.S. 1967. Prehistoric Overkill. Pleistocene Extinctions: The Search for a Cause, edited by P. Martin and H.E. Wright. Yale University Press: New Haven.

Martin, P.S. 1973. The Discovery of America.Science179(4077): 969-974.

Masters, Patricia M. 1983. Detection and Assessment of Prehistoric Artifact Sites off the Coast of Southern California. In: *Quaternary Coastlines and Marine Archaeology: Towards the Prehistory of Land Bridges and Continental Shelves*, edited by P.M. Masters and N.C. Flemming, pp. 189-213. Academic Press, London.

Meighan, Clement W. 1954. A Late Complex in Southern California Prehistory. *Southwestern Journal of Anthropology* 10(2).

Miller, J. 1966. *The Present and Past Molluscan Faunas and Environments of Four Southern California Coastal Lagoons*. Master's thesis. University of California, San Diego.

Moratto, Michael J. 1984. California Archaeology. Academic Press, New York.

Moriarty, James R., III. 1966. Culture Phase Divisions Suggested by Topological Change Coordinated with Stratigraphically Controlled Radiocarbon Dating in San Diego. *Anthropological Journal of Canada* 4(4):20–30.

Moss, M.L. and J. Erlandson. 1995. Reflections on North American Coast Prehistory. *Journal of World Prehistory* 9(1):1-46.

Raven-Jennings, Shelly, Brian F. Smith and Johnna L. Buysse. 1996. The Results of a Cultural Resource Study at the 4S Ranch, Rancho Bernardo, County of San Diego. Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

Rogers, Malcolm J. 1939. Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas. In *San Diego Museum Papers* (No. 3–1989 printing). San Diego Museum of Man, San Diego, California.

Shumway, George, Carl L. Hubbs, and James R. Moriarty, III. 1961. Scripps Estate Site, San Diego, California: A La Jollan Site Dated 5,460-7,370 Years Before the Present. *Annals of the New York Academy of Sciences* 93(3).

Smith, Brian F. and James R. Moriarty, III. 1985. An Archaeological Reconnaissance of San Diego Motor Racing Park, Otay Mesa, San Diego. Unpublished report on file at the City of San Diego, Environmental Analysis Division, San Diego, California.

Strong, William D. 1929. Aboriginal Society in Southern California. *University of California Publications in American Archaeology and Ethnology 26(1).*

Sutton, Mark Q. 2009. People and Language: Defining the Takic Expansion into Southern California. *Pacific Coast Archaeological Society Quarterly* 41(2&3):33–93.

Sutton, Mark Q. 2011a. The Palomar Tradition and Its Place in the Prehistory of Southern California. *Pacific Coast Archaeological Society Quarterly* 44(4):1–74.

Sutton, Mark Q. 2011b. *A Prehistory of North America.* Routledge, New York.

Sutton, Mark Q. and Jill K. Gardener. 2010. Reconceptualizing the Encinitas Tradition of Southern California. *Pacific Coast Archaeological Society Quarterly* 42(4):1–64.

True, Delbert L. 1958. An Early Complex in San Diego County, *California. American Antiquity* 23(3).

True, Delbert L. 1980. The Pauma Complex in Northern San Diego County. *The Journal of New World Archaeology* 3(4):1–39

Wallace, William J. 1955. A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11:214–230.

Warren, Claude N. (editor). 1968. Cultural Tradition and Ecological Adaptation on the Southern Coast. In *Archaic Prehistory in the Western United State*s, C.I. Williams, editor. Eastern New Mexico. University Contributions in Anthropology 1(3):1–14.

Warren, Claude N. and D.L. True. 1961. The San Dieguito Complex and its Place in *California Prehistory, In Archaeological Survey Annual Report 1960-1961.* University of California Press, Los Angeles, California.

Warren, Claude N., D.L. True, and Ardith A. Eudey. 1961. Early Gathering Complexes of Western San Diego County: Results and Interpretations of an Archaeological Survey. *Archaeological Survey Annual Report 1960-1961*. University of California, Los Angeles.

INTENTIONALLY LEFT BLANK

4.17 Utilities and Service Systems

This section describes the existing utilities conditions of the proposed West Campus Upper Plateau Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to the implementation of the proposed Project. The following analysis is based in part upon the following documents:

- *Preliminary Hydrology Study, Meridian Park Upper Plateau*, prepared by DRC Engineering in February 2022 (Appendix K-1)
- Preliminary Hydrology Study for Meridian Park Upper Plateau - Building B, prepared by DRC Engineering in May 2022 (Appendix K-5)
- *Preliminary Hydrology Study for Meridian Park Upper Plateau - Building C*, prepared by DRC Engineering in May 2022 (Appendix K-6)
- *Water Supply Assessment, Meridian West Upper Plateau Project,* prepared by Western Municipal Water District in February 2022 (Appendix O)
- *Sewer Capacity Study, Ultimate Condition for Meridian Park LLC, Riverside, CA,* prepared by DRC Engineering in October 2018 (Appendix P-1)
- *Riverside Facilities Master Plan, Potable Water, Recycled Water & Wastewater*, prepared for Western Municipal Water District by Dudek in November 2021 (Appendix P-2)
- *Preliminary Utility Plans*, prepared by RGA (Figures 3-7A through 3-7H)

As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1,280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity) CBD Settlement Agreement (Appendix S).

4.17.1 Existing Conditions

West Campus Upper Plateau Project Site

The Project site is located within the jurisdictional boundaries of unincorporated areas within Riverside County. The Project site is currently designated for a mix of business park and park/recreation/open space. Currently, the Project site consists of a non-operational water tower, asphalt paved and dirt access roads, seven buildings in various states of abandonment, chain-link fencing, and 16 bunkers that were previously used for munitions storage by the Air Force.

Domestic Water

Water Supply

Water is currently supplied to the Project area by Western Municipal Water District (WMWD), whose service area is located in western Riverside County and covers 527 square miles, of which 104 square miles are included in its retail service area. WMWD is both a wholesale and a retail agency, supplying approximately 23,000 retail customers and 14 wholesale customers within its service area. The WMWD Riverside service area uses local groundwater and imported water as potable and non-potable sources, and recycled water as a non-potable source. WMWD's primary source of water is imported water, the majority of which is purchased from the Metropolitan Water District of Southern California, which made up approximately 60% of WMWD's total water supply in 2020. The Metropolitan Water District of Southern California imports water from the State Water Project, which conveys water from the Bay-Delta to Southern California via the California Aqueduct, and from the Colorado River through the Colorado River Aqueduct. WMWD also purchases local groundwater supplies from Meeks and Daley Water Company, Riverside Highland Water Company and when available, from the City of Riverside, typically on an emergency or off-season basis. Groundwater is a major source of water supply for WMWD and its retail agencies, making up 13% of purchased water, 85% of locally produced water, and 21% of WMWD's total supply in 2015. Local groundwater supplies are pumped by WMWD from the Temecula-Murrieta portion of the Temecula Valley Groundwater Basin and the San Bernardino Basin Area for retail supplies, and from the Arlington Subsection of the Riverside-Arlington Groundwater Basin for wholesale supplies (WMWD 2016, 2021).

In accordance with the Sustainable Groundwater Management Act, the California Department of Water Resources has classified each of these basins (Temecula Valley Basin, Riverside-Arlington Basin, and the San Bernardino Basin Area) in regard to prioritizing a Sustainable Groundwater Management Plan. All but the San Bernardino Basin Area, which is composed of parts of the Bunker Hill Basin, the Yucaipa Basin, and the Rialto-Colton Basin, were considered to have a very low priority in regard to enacting a Groundwater Management Plan. Of the three basins, both the Bunker Hill Basin and the Rialto-Colton Basin had a very low priority, while the Yucaipa Basin was considered to have a high priority (CDWR 2021).

However, groundwater used by WMWD and many of its member agencies are generally adjudicated or otherwise managed as a result of court decisions and judgments. A formal Groundwater Management Plan has been developed by WMWD for the Arlington Basin and the Riverside-Arlington Subbasin Groundwater Sustainability Agency is currently developing a Groundwater Sustainability Plan to achieve long-term reliability (WMWD 2021). Temecula Valley Basin has a Salt and Nutrient Management Plan to help manage groundwater quality in the face of current and proposed recycled water use. A Groundwater Management Plan has not been developed for the San Bernardino Basin; however, the management of this basin is the primary focus of the Upper Santa Ana River Watershed Integrated Regional Water Management Plan prepared by the San Bernardino Valley Municipal Water

District and included in the Annual Report of the Western-San Bernardino Watermaster. The Basin Technical Advisory Committee, organized under the Upper Santa Ana Watershed Integrated Regional Water Management Plan, was formed to identify issues and projects that need to be continually addressed. The Basin Technical Advisory Committee includes representatives from 15 agencies, including WMWD, along with various other stakeholders (WMWD 2016, 2021).

WMWD's historical water demands have shown a slight increase in water use in WMWD's wholesale and retail service areas due to the growth and development of the region. Although the overall historical demands have increased, demands have decreased in more recent years due to the economic recession of 2008, the recent drought, and the associated increase in water conservation efforts. All urban water suppliers throughout California are mandated by the Water Conservation Act of 2009 (also referred to as Senate Bill [SB] X7-7) to reduce per-capita potable water demands by 20% by 2020. For 2020, WMWD was required to have a per-capita water use of 352 gallons per-capita per day. WMWD's water demands for 2020 were 205 gallons per-capita per day, which is well below the 2020 target. Reduced demands in WMWD's service area are likely the result of ongoing conservation programs (WMWD 2021).

In June 2021, WMWD adopted an Urban Water Management Plan (UWMP), which summarizes water demands by sector and characterizes the source waters available to meet those demands for 2025 through 2045. The plan also describes the reliability of WMWD's water supplies and discusses WMWD's Water Supply Shortage Contingency Planning during a catastrophic event or drought conditions. According to this UWMP and as shown in Table 4.17-1 and Table 4.17-2, WMWD's identified water supplies exceed estimated demand projections through 2045 under normal and multiple dry year conditions but may result in a shortage under 2045 single dry year conditions (WMWD 2021).

Table 4.17-1. Normal Year Supply and Demand Comparison

	2020	2025	2030	2035	2040
Western Municipal Water District Retail					
Supply totals (AFY)	69,718	76,264	79,672	92,030	90,400
Demand totals (AFY)	30,184	33,714	36,415	39,170	41,704
Difference (AFY)	38,904	42,550	42,257	52,860	48,696
Western Municipal Water District Wholesale					
Supply totals (AFY)	152,491	159,389	169,372	178,155	184,095
Demand totals (AFY)	110,787	114,039	123,515	122,895	132,999
Difference (AFY)	41,704	45,350	45,857	55,260	51,096

Source: WMWD 2021.
Note: AFY = acre-feet per year.

Table 4.17-2. Multiple-Dry Years Supply and Demand Comparison

		2020	2025	2030	2035	2040
Western Municipal Water District Retail						
First Year	Supply totals (AFY)	69,718	76,264	79,672	92,030	90,400
	Demand totals (AFY)	30,814	33,714	36,415	39,170	41,704
	Difference (AFY)	38,904	42,550	43,257	52,860	48,696
Second Year	Supply totals (AFY)	69,718	76,264	79,672	79,672	90,400

Table 4.17-2. Multiple-Dry Years Supply and Demand Comparison

		2020	2025	2030	2035	2040
	Demand totals (AFY)	30,814	33,714	36,415	36,415	41,704
	Difference (AFY)	38,904	42,550	43,257	43,257	48,696
Third Year	Supply totals (AFY)	69,718	76,264	79,672	79,672	90,400
	Demand totals (AFY)	30,814	33,714	36,415	36,415	41,704
	Difference (AFY)	38,904	42,550	43,257	43,257	48,696
Western Municipal Water District Wholesale						
First Year	Supply totals (AFY)	152,491	159,389	169,372	178,155	184,095
	Demand totals (AFY)	110,787	114,039	123,515	122,895	132,999
	Difference (AFY)	41,704	45,350	45,857	55,260	51,096
Second Year	Supply totals (AFY)	152,491	159,389	169,372	178,155	184,095
	Demand totals (AFY)	110,787	114,039	123,515	122,895	132,999
	Difference (AFY)	41,704	45,350	45,857	55,260	51,096
Third Year	Supply totals (AFY)	152,491	159,389	169,372	178,155	184,095
	Demand totals (AFY)	110,787	114,039	123,515	122,895	132,999
	Difference (AFY)	41,704	45,350	45,857	55,260	51,096

Source: WMWD 2021.
Note: AFY = acre-feet per year.

Water Conveyance

As shown in Figure 3-7B, Utility Extensions – Water, existing 8-inch, 12-inch, 16-inch, and 24-inch water lines extend to the proposed Project site at Grove Community Drive, Brown Street, and Cactus Avenue, respectively. In addition, as shown on Figure 3-7C, Utility Extensions – Reclaimed Water, an existing off-site 12-inch reclaimed water line is present north of Cactus Avenue, extending to Alessandro Boulevard. Another existing reclaimed water line is present south of the Project site, along Grove Community Drive.

Wastewater

Wastewater Treatment

Wastewater is treated by WMWD in the Project region. The WMWD collection system network is divided into two separate sewage systems, which terminate at two separate treatment plants, including the Western Riverside County Regional Wastewater Authority (WRCRWA) plant, and the Western Water Recycling Facility (WWRF). The WRCRWA, which services the western portion of the service area, primarily treats wastewater from residential sources. The WWRF, which services the eastern portion of the service area, treats wastewater from a mix of residential, commercial, and industrial sources, including March Air Reserve Base (Appendix P-1).

Sewage from the Project would be conveyed to the WWRF, formerly the March Wastewater Treatment Plant, located west of Interstate (I) 215 and north of Nandina Avenue. Historically, the WWRF was designed to treat flows from the former March Air Force Base. With the realignment of the Base, the facility came under the ownership of WMWD. Construction of new residential development to the west of the WWRF, as well as major industrial development to the north, has expanded the WWRF service area (Western 2014a). In 2003, the capacity of the WWRF was 0.75 million gallons per day (mgd). At that time, it was determined that planned treatment plant expansion, capable of treating 2 mgd, would be adequate to serve the March Business Center (Kimley-Horn and Associates 2003a). By

2011, WMWD expanded the capacity of the WWRF to treat 3 mgd of wastewater at a tertiary level (Western 2014a, 2021). Currently, the average dry weather flow to the WWRF is 1.17 mgd and the peak wet weather flow is 4.91 mgd. The treatment capacity of the WWRF remains at 3 mgd. However, treatment plant capacity is evaluated against average dry weather flow, not wet weather flow (Appendix P-2). Treated water is discharged to an impoundment and pumped to a recycled water system. The recycled water is currently provided to the Riverside National Cemetery, General Old Golf Course, and various landscaping, agricultural and commercial use sites. When supply exceeds demand, such as during wet winter months, excess recycled water is stored in the on-site impoundment until needed. If recycled water demands exceed supply, March Air Reserve Base's Expanded Groundwater Extractions and Treatment System may operate and send groundwater flows to blend with recycled water in WMWD's on-site storage ponds at the WWRF. If there is a large discrepancy between recycled water demand and recycled water supply, excess recycled water from the WWRF can be placed in WMWD's existing sewer collection system for conveyance and treatment at the WRCRWA plant, where it is eventually discharged to the Santa Ana River. Current wastewater generation and recycled water demand projections indicate that most of the recycled water generated at the WWRF can be used, except during unusually wet winter weather events (Western 2014a, 2016; WRCRWA 2021). Additionally, WMWD owns 1.95 mgd of treatment capacity at the WRCRWA; however, infrastructure is not available to transmit raw sewage from the WWRF to WRCRWA for treatment. The infrastructure that is available for transmission from the WWRF to the WRCRWA is confined to transmission of recycled water (Western 2014b).

Wastewater Conveyance

As shown in Figure 3-7A(1), Utility Extensions – On-Site Sewer, an existing 15-inch sewer main extends to the Project site along Cactus Avenue. The 15-inch main connects to an existing 18-inch sewer main within Cactus Avenue, which then trends south along Innovation Drive, merges with a 24-inch sewer main parallel to I-215, terminating at the Van Buren Lift Station (Figure 3.7A[2], Utility Extensions – Off-Site Sewer System). From the lift station, an existing 24-inch sewer main trends south along I-215 to the WWRF.

Stormwater Drainage

Within western Riverside County, the Riverside County Flood Control and Water Conservation District (RCFCWCD) oversees implementation and compliance of both General and MS4 permits. In addition, this agency, in addition to the County Transportation Department and Coachella Valley Water District, oversees Riverside County's municipal storm drain system for conveying stormwater flows (RCFCWCD 2011). As indicated in Section 4.9, Hydrology and Water Quality, stormwater flow occurs on-site within storm drains from the elevated central portion of the Project site to the perimeters, at which point runoff occurs through natural drainage features incised into the rolling hills. A hydrology analysis was completed for the proposed Specific Plan Area (Appendix K-1). Based on this analysis, the site consists of 17 separate watersheds, each of which drain to the Santa Ana River (with the exception of Watershed 13, which drains to the San Jacinto River) (Figure 4.9-1, Existing Site Watersheds). The watersheds flow into both County of Riverside and City of Riverside drainage facilities. As shown in Figure 3-7D, Utility Extensions – Storm Drain, an existing 36-inch storm drain extends from the eastern Project boundary, north of Cactus Avenue, to the Lot 69, North Detention Basin, immediately south of Alessandro Boulevard.

One small Project site watershed (Number 13), in the southeast portion of the Conservation Easement, is within the Perris Valley Master Drainage Plan (MDP) area, as designated by the RCFCWCD. None of the other watersheds, including the Specific Plan Area, are within an MDP (Figure 4.9-2, Master Drainage Plan Areas). MDPs address the current and future drainage needs of a given community, by investigating and evaluating drainage problems, as well as developing an economical drainage plan that provides flood protection for the most seriously impacted portions of communities.

Electric Power

Electric power in the Project area is currently served by Southern California Edison (SCE). As shown in Figure 3-7E, Utility Extensions – Electrical, existing electrical backbone service is available along Cactus Avenue, on the east side of the Project.

Natural Gas

Natural gas currently serving the Project area is provided by Southern California Gas Company (SoCalGas), which owns and operates two natural gas storage fields in Southern California. These storage fields help meet peak seasonal demand and allow Southern California customers to secure natural gas supplies more efficiently. SoCalGas also owns and operates four underground storage facilities located around Southern California (none in Riverside County). SoCalGas provides natural gas to Riverside County through three major natural gas pipelines traversing Riverside County from east to west (County of Riverside 2014). From there, natural gas is served by a 10-inch-diameter transmission line located west of I-215 and east of the Project site (MBCSP 2016).

As shown in Figure 3-7H, Utility Extensions – Gas, existing natural gas service is available along Cactus Avenue, on the east side of the Project.

Telecommunications Facilities

Telecommunication services to the Project area are provided by Frontier Communications and Spectrum Communications. As shown in Figure 3-7F, Utility Extensions – Telephone and Figure 3-7G, Utility Extensions – Cable TV, existing telephone and cable television service is available along Cactus Avenue, on the east side of the Project.

Solid Waste

The collection, transport, and disposal of solid waste and recyclables from businesses in the Project area is provided by Waste Management of the Inland Empire. Once collected, waste is transferred to the Robert A. Nelson Transfer Station, which is owned by the County of Riverside but operated by a private company. From there, solid waste is disposed of at El Sobrante, Lamb Canyon, and Badlands landfills. Based on California Department of Resources Recycling and Recovery (CalRecycle 2021), information pertaining to the landfills is as follows:

- El Sobrante Landfill, located at 10910 Dawson Canyon Road, in Corona, is approximately 24 miles southwest of the Project site. As of 2021, El Sobrante Landfill had an estimated remaining capacity of 143,977,170 cubic yards, had a maximum daily throughput of 16,054 tons per day, and has a cease operation date of January 2051.
- The Lamb Canyon Sanitary Landfill, located at 16411 State Hwy 79, in Beaumont, is located approximately 27 miles to the east of the Project site. As of 2021, the Lamb Canyon Sanitary Landfill had an estimated remaining capacity of 19,242,950 cubic yards, had a maximum daily throughput of 5,000 tons per day, and has a cease operation date of April 2029.
- The Badlands Sanitary Landfill, located at 31125 Ironwood Avenue, in Moreno Valley, is located approximately 15 miles to the northeast of the Project site. As of 2021, the Badlands Sanitary Landfill had an estimated remaining capacity of 15,748,799 cubic yards and had a maximum daily throughput of 4,800 tons per day.

4.17.2 Relevant Plans, Policies, and Ordinances

Federal

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

Senate Bill X7-7

SB X7-7, effective February 3, 2010, is the water conservation component to the Delta legislative package (SB 1, Delta Governance/Delta Plan). It seeks to implement water use reduction goals established in 2008 to achieve a 20% statewide reduction in urban per capita water use by December 31, 2020. The bill requires 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 establishes methods for urban retail water suppliers to determine targets to help achieve water reduction targets. The retail water supplier must select one of the four compliance options. The retail agency may choose to comply with SB X7-7 as an individual or as a region in collaboration with other water suppliers. Under the regional compliance option, the retail water supplier still has to report the water use target for its individual service area. The bill also includes reporting requirements in the 2010, 2015, and 2020 UWMPs.

Sanitary Sewer General Waste Discharge Requirements

On May 2, 2006, the State Water Resources Control Board adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 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 State Water Resources Control Board, 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, is commonly referred to as CALGreen, and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all new construction of residential and non-residential buildings. CALGreen standards are updated periodically. The latest version became effective on January 1, 2020.

Mandatory CALGreen standards pertaining to water, wastewater, and solid waste include the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance
- Diversion of 65% of construction and demolition waste from landfills

Executive Order B-29-15

In response to droughts in California, Executive Order 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 Executive Order extended through February 28, 2016, although many of the directives became permanent water-efficiency standards and requirements. The Executive Order includes specific directives that set strict limits on water usage in the state. In response to Executive Order B-29-15, the California Department of Water Resources 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.

Assembly Bills 939 and 341

The California Integrated Waste Management Act of 1989 (Assembly Bill [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 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 California Integrated Waste Management Board (CIWMB) regulatory oversight. Since the adoption of AB 939, landfill capacity is no longer considered a statewide crisis. AB 939 has achieved substantial progress in waste diversion, program implementation, solid waste planning, and protection of public health, safety, and the environment, from landfills operations and solid waste facilities.

In 2011, AB 341 was passed, requiring CalRecycle to require that local agencies adopt strategies that will enable 75% diversion of all solid waste by 2020.

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.

Senate Bill 1374: Construction and Demolition Waste Reduction

SB 1374 requires that annual reports submitted by local jurisdictions to the CIWMB include a summary of the progress made in diversion of construction and demolition waste materials. In addition, SB 1374 requires the CIWMB to adopt a model ordinance suitable for adoption by any local agency that required 50% to 75% diversion of construction and demolition waste materials from landfills by March 1, 2004. Local jurisdictions are not required to adopt their own construction and demolition ordinances, nor are they required to adopt CIWMB's model by default.

Assembly Bill 1826: Mandatory Commercial Organics Recycling

In October 2014, Governor Brown signed AB 1826 (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 consists 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.

California Code of Regulations, Titles 14 and 27

Title 14 (Natural Resources, Division 7) and Title 27 (Environmental Protection, Division 2 [Solid Waste]) of the California Code of Regulations govern the handling and disposal of solid waste and operation of landfills, transfer stations, and recycling facilities.

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 the Sustainable Groundwater Management Act (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 California Department of Water Resources provides ongoing support to local agencies through guidance, financial assistance, and technical assistance. SGMA empowers local agencies to form Groundwater Sustainability Agencies to manage basins sustainably and requires those Groundwater Sustainability Agencies to adopt Groundwater Sustainability Plans for crucial groundwater basins in California.

California Water Code Sections 1610–10656, Urban Water Management Planning Act

California urban water providers are required by state law to develop a UWMP to ensure sufficient water supplies available to meet the long-term needs of its customers during normal, dry, or multiple-dry years. The Urban Water Management Plan Act requires urban water suppliers, which provide water for municipal purposes to more than 3,000 customers or supply more than 3,000 acre-feet of water annually, to develop an UWMP every 5 years, in the years ending in 0 and 5.

In the Act, the California Legislature declared that the waters of the state are a limited and renewable resource subject to ever increasing demands; that the conservation and efficient use of urban water supplies are of a statewide concern; that successful implementation of plans is best accomplished at the local level; that conservation and efficient use of water shall be actively pursued to protect both the people of the state and their water resources; that conservation and efficient use of urban water supplies shall be a guiding criterion in public decisions; and that urban water suppliers shall be required to develop water management plans to achieve conservation and efficient use.

The Western Municipal Water District 2020 UWMP has been prepared in compliance with these requirements of the Act, as well as the additional reporting requirements of the Water Conservation Act of 2009. The Western Municipal Water District 2020 UWMP is an update of its 2015 UWMP and incorporates substantial information from the WMWD 2014 Water Master Plan, 2014 Recycled Water Master Plan, and other local and regional planning documents. The UWMP is intended to serve as a general, flexible, and open-ended document that periodically can be updated to reflect changes in regional water supply trends, conservation policies, and water use efficiency policies (WMWD 2021).

Senate Bill 610 and Senate Bill 221: Water Supply Assessments and Water Supply Verifications

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 evidentiary basis for an approval action by the City or County on such projects. Under Water Code Section 10912(a), projects subject to the California Environmental Quality Act (CEQA) requiring a water supply assessment 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 unit project. 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 applicant of a subdivision map of 500 dwelling units or more to verify that the public water supplier has sufficient water available to serve the proposed development.

Distribution and Water Rights

California Water Code Section 10910(d)(2) requires the identification of existing water supply entitlements, water rights, or water service contracts; federal, state, and local permits for construction of necessary infrastructure; and any regulatory approvals required in order to be able to deliver the water supply. Extraction and distribution of groundwater resources is governed by common law and the California constitution rather than a particular agency, such as the State Water Resources Control Board, which exercises control over surface waters. However, if the groundwater basin has been adjudicated, there is a determination of specific rights to groundwater resources under the jurisdiction of a court-appointed Watermaster.

Local

Solid Waste

Policies and goals of the County of Riverside Source Reduction and Recycling Element would apply to the Project. The Source Reduction and Recycling Element is composed of the following nine components: Waste Generation Study Analysis, Source Reduction, Recycling, Composting, Special Wastes, Education and Public Information, Disposal Facility Capacity, Funding, and Integration. Each component includes specific goals and objectives. The goals are broad targets, whereas the objectives provide short and/or medium-term targets that are quantifiable. The alternative programs contained within each component provides the mechanism for attaining the selected objectives and the broader goal.

Grading and Utility Installation

Goals and policies of the March JPA General Plan and the March JPA Development Code would apply to the Project with respect to grading and underground utility installation. In addition, Project grading would be completed in accordance with the Grading Plan Development Standards of the West Campus Upper Plateau Specific Plan.

March JPA General Plan

The Land Use Element of the March JPA General Plan includes goals and policies related to utilities and service systems. The following goals and policies from the March JPA General Plan apply to the Project (March JPA 1999). Consistency with these goals and policies is discussed in Section 4.10, Land Use and Planning, of this EIR.

Goal 3: Manage growth and development to avoid adverse environmental and fiscal effects.

- **Policy 3.1:** Manage growth so that is rate does not exceed the ability of March JPA or service districts to provide for an acceptable level of public facilities and services.
- **Policy 3.2:** Manage the development and reuse of the Planning Area to maintain continuity with existing facilities and the operation of the AFRES; provide for orderly expansion of infrastructure and public services; and minimize impacts on natural environmental resources.
- **Policy 3.3**: Use finance mechanisms such as benefit assessment districts, development fees, and maintenance districts to assure that new development within the Planning Area constructs the public facilities and fiscally supports the public services necessitated by the development.
- **Policy 3.4:** Assess the fiscal impacts (service costs and revenues) of proposed major development projects to determine the actual cost of providing services.
- **Policy 3.5**: Permit the development of service facilities ancillary to primary development (i.e., child care, food services, etc.).

Goal 10: Avoid undue burdening of infrastructure, public facilities, and services by requiring new development to contribute to the improvement and development of the March JPA Planning Area.

Policy 10.1: Require new construction to pay its "fair share" of the cost of providing adequate public facilities, infrastructure, and facilities for the development.

Policy 10.2: Require new Construction to provide adequate infrastructure to serve the development (i.e., curbs and gutters, sidewalks, street lights, water service, sewer service or septic systems, etc.) prior to initiation of use.

Policy 10.3: Locate commercial and industrial development in areas where street rights-of-way and capacity are available, as well as sufficient infrastructure and public services.

Policy 10.4: Facilitate the provision of public services (i.e., sewer, water, streets, and public safety), to be provided in an efficient and cost-effective manner.

Goal 12: Ensure, plan, and provide adequate infrastructure for all facility reuse and new development, including but not limited to, integrated infrastructure planning, financing, and implementation.

Policy 12.1: Coordinate the provision of all public utilities and services to ensure a consistent, complete and efficient system of service to development.

Policy 12.2: Require new construction to pay its "fair share" for the regional infrastructure system by providing appropriate dedications, improvements, and/or fee assessment districts or other financing mechanisms.

Policy 12.3: Require new development projects to provide for the extension of infrastructure to serve the development, including over-sizing facilities for future needs.

Policy 12.4: Preserve options and facilities to accommodate new and advanced technologies, inclusive of communication systems.

Goal 13: Secure adequate water supply system capable of meeting normal and emergency demands for existing and future land uses.

Policy 13.1: Only approve development which can demonstrate an adequate and secure water supply for the proposed use.

Policy 13.2: Enhance local groundwater supplies through development designs which promote an on-site recharge and minimize permeable ground coverage with landscaped areas, open space or recreation areas.

Policy 13.3: Design and operate March JPA facilities in compliance with established water conservation practices and programs.

Goal 14: Establish, extend, maintain, and finance a safe and efficient wastewater collection, treatment, and disposal system which maximizes treatment and water recharges, minimizes water use, and prevents groundwater contamination.

Policy 14.1: Require all development to adequately collect, treat, and dispose of wastewater in accordance with the Santa Ana Regional Water Quality Control Board requirements.

Policy 14.2: Require connection to the sewer system for any development occurring on land formerly part of March AFB.

Policy 14.3: Encourage reuse of reclaimed and treated non-potable water for irrigation and maintenance of recreation areas, landscaping, and open space preservation.

Goal 15: In compliance with state law, ensure solid waste collection, siting and construction of transfer and/or disposal facilities, operation of waste reduction and recycling programs, and household hazardous waste disposal programs and education are consistent with the County Solid Waste Management Plan.

Policy 15.1: Ensure all hazardous materials are stored, treated, and disposed in accordance with state and federal law.

Policy 15.2: Support programs to promote greater awareness and involvement in waste reduction and recycling.

Goal 16: Adequate supplies of natural gas and electricity from utility purveyors and the availability of communication services shall be provided within the March JPA Planning Area.

Policy 16.1: Where feasible, require new development to underground on-site telecommunication connections.

Policy 16.2: Encourage and support the under grounding of existing overhead utilities.

Policy 16.3: Accommodate advancing technologies with communication systems, inclusive of fiber-optics and high speed transmission lines.

Policy 16.4: Prepare a capital improvement program (CIP) which provides for the maintenance and upgrading of existing infrastructure to adequate levels of service and the installation of new facilities, as needed.

Policy 16.5: Encourage the preparation and adoption of CIPs for other agencies and districts responsible for the provision of infrastructure systems in the March JPA Planning Area.

Goal 17: Adequate flood control facilities shall be provided prior to, or concurrent with, development in order to protect the lives and property within the March JPA Planning Area.

Policy 17.1: Provide for the adequate drainage of storm runoff to protect the lives and property within the Planning Area.

Policy 17.2: Monitor and maintain drainage and flood control facilities to ensure adequate capacity to support the land use plan.

Policy 17.3: Require new development to construct new or upgrade existing drainage facilities to accommodate the additional storm runoff caused by the development.

Policy 17.4: Require all storm drain and flood control facilities to be approved and operational prior to the issuance of certificates of occupancy for the associated development.

Policy 17.5: Designate and preserve land for necessary flood control facilities, in accordance with a certified hydrology study and master plan for March JPA Planning Area.

Policy 17.6: Ensure development within the 100-year flood plain, as designated by the Federal Emergency Management Agency (FEMA), shall be consistent with the requirements established by FEMA.

Policy 17.7: Seek to preserve drainage courses in their natural condition, while providing adequate safety and protection of property.

4.17.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to utilities and service systems are based on the 2022 March JPA CEQA Guidelines. Based on the March JPA CEQA Guidelines, a significant impact related to the proposed Project would occur if the Project would:

UTL-1: Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

UTL-2: Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

UTL-3: 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?

UTL-4: 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?

UTL-5: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

4.17.4 Impacts Analysis

Threshold UTL-1. ***Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

Water Facilities – Specific Plan Area

Campus Development

Construction

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. WMWD provides water service to a significant area of unincorporated Riverside County, including the Specific Plan Area. Conceptual utility plans provided for the Specific Plan Area (Figure 3-7B, Utility Extensions – Water) depict potable water lines buried within roadways. As part of the Specific Plan, 12-inch water mains would be constructed within all the proposed streets (Arclight Drive, Linebacker Drive, Bunker Hill Road, Airman Drive, Cactus Avenue, and Barton Street north of Grove Community Drive). The 12-inch main along Cactus Avenue would connect with an existing 24-inch main east of the Campus Development. To the south, a primary water connection would be extended from the intersection of Barton Street and Grove Community Drive. On-site water infrastructure would include new water meters and connections to existing water systems, as well as installation of new water mains throughout the Specific Plan Area. These water mains would provide domestic water, fire-fighting water, and potable irrigation water to the proposed Campus Development.

As depicted in Figure 3-7C, Utility Extensions – Reclaimed Water, reclaimed/recycled water would be provided to the Campus Development for irrigation purposes so as to reduce the dependence and reliance upon potable water for landscaping and irrigation. Existing 12-inch reclaimed water lines are located within the Cactus Avenue right-of-way to the east of the Specific Plan Area. New 8- and 12-inch reclaimed water mains would be constructed in all of the proposed Specific Plan Area streets. In addition, a new 0.5 MG reclaimed water tank would be installed south of the Project site, at the Orangecrest site. Construction would involve grading, pouring a concrete pad, assembling the tank, and utility line connections to provide the reclaimed water to the Specific Plan Area. The new tank would be connected to an existing reclaimed water line running along Grove Community Drive, and a new line would also be installed along the southern boundary of the Specific Plan Area, traveling west to connect to Barton Street, and traveling north to connect with the Specific Plan Area.

The proposed reclaimed water system would connect to existing 12-inch reclaimed water lines within the Cactus Avenue right-of-way, which in turn will connect to the existing reclaimed water facilities maintained by the WMWD. WMWD provides wastewater service to the unincorporated Riverside County areas north and east of Lake Mathews within its retail water service boundaries. This area is served by the WWRF, which is a 3.0 mgd wastewater treatment facility producing tertiary treated recycled water. WMWD will coordinate with the Project applicant to determine the specific reclaimed infrastructure needs (Appendix O).

Installation of new water mains and laterals would consist of either trenching to the depth of pipe placement or using a variety of different trenchless technology, which causes substantially less ground disturbance. Trenching results in a temporary stockpiling of soil along the length of the trench, pending backfilling, which could result in potential short-term soil erosion. However, construction would occur in accordance with the requirements of the Construction General Permit (National Pollutant Discharge Elimination System [NPDES] General Permit for Storm Water Associated with Construction Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002). As also described in Section 4.9, Hydrology and Water Quality, the March JPA Water Quality Management Plan (WQMP) Guidance Document is used by March JPA as a guidance document to help establish consistency with other agencies and regulations regarding water quality control. Based on this guidance document, it is the responsibility of applicants within March JPA to obtain coverage under the Construction General Permit and implement a Storm Water Pollution Prevention Plan (SWPPP), which describes Best Management Practices (BMPs) the discharger would use to protect stormwater runoff, including erosion-induced siltation of downstream drainages and incidental spills of petroleum products from construction equipment. As a result of implementing current regulations, including a SWPPP, adverse impacts associated with new water line construction would be ***less than significant***, and no mitigation is required.

Operations

Operation of expanded water facilities for the Campus Development would have ***no impact*** on the environment, as no ground disturbance would occur since the facilities would already be constructed and in place.

Park

Construction

The proposed Project includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The Park parcel will be served by reclaimed water lines for irrigation and potable water lines for proposed restrooms and water fountains. These lines would be installed in the Barton Street extension (Figure 3-7C, Utility Extensions – Reclaimed Water). Similar to the Campus Development, installation of new water mains and laterals would consist of either trenching to the depth of pipe placement or using a variety of different trenchless technology, which could result in potential short-term soil erosion. However, Park construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. The SWPPP would describe BMPs the discharger would use to protect stormwater runoff, including erosion-induced siltation of downstream drainages and incidental spills of petroleum products from construction equipment. With implementation of the SWPPP, adverse impacts associated with new reclaimed and potable water line construction for the Park would be ***less than significant***, and no mitigation is required.

Operations

Operation of expanded water facilities for the proposed Park would have ***no impact*** on the environment, as no ground disturbance would occur since the facilities would already be constructed and in place.

Infrastructure Improvements

Construction

Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank. Similar to the Campus Development, installation of new water infrastructure, including the reclaimed water tank and associated reclaimed water lines, could result in potential short-term soil erosion. However, water infrastructure construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. With implementation of SWPPP BMPs, adverse impacts associated with construction of the new water tank and associated water lines would be ***less than significant***, and no mitigation is required.

Operations

Operation of expanded water infrastructure would have ***no impact*** on the environment, as no ground disturbance would occur since the facilities would already be constructed and in place.

Conservation Easement

The developer and the March JPA propose to establish a 445.43-acre Conservation Easement, which would provide a buffer of at least 300 feet of open space on all sides of the Specific Plan Area, with a larger buffer to the south and east of the Specific Plan Area. As no physical alteration to the Conservation Easement is anticipated, there would be no impact with respect to water infrastructure upgrades. ***No impacts*** would occur.

Wastewater Conveyance – Specific Plan Area

Campus Development

Implementation of the Specific Plan would result in the buildout of on-site wastewater infrastructure. Conceptual utility plans provided for the Specific Plan Area (Figure 3-7A[1], Utility Extensions – On-Site Sewer) depict existing and proposed sewer lines buried within roadways. As part of the Specific Plan, 8-inch sewer mains would be installed during the construction of Airman Drive, Arclight Drive, and Bunker Hill Drive; a 12-inch sewer main would be installed in the western portion of Cactus Avenue; and a 15-inch sewer main would be installed in the eastern portion of Cactus Avenue. The 15-inch sewer main would connect to an existing sewer stub at the terminus of the existing Cactus Avenue cul-de-sac. As shown on Figure 3-7A(2), Utility Extensions – Off-Site Sewer System, the on-site 15-inch-diameter sewer line would feed into an existing 18-inch sewer main on Cactus Avenue and Innovation Drive. At the southern end of Innovation Drive, the sewer main connects to an 18- to 24-inch-diameter sewer line located parallel to I-215. The 24-inch-diameter sewer line would carry wastewater from the Specific Plan Area into the WWRF. Based on a sewer capacity study completed for the entire March Business Center, including the North Campus, South Campus, and West Campus, the existing and proposed sewer facilities would have the capacity to accommodate increased Specific Plan-related wastewater flows. Projected wastewater flows were based on land uses/zoning and sewage generation factors, per the WMWD 2014 Sewer Master Plan. The proposed facilities were designed to convey all tributary flows without exceeding the allowable capacity of 75%, per WMWD requirements (Appendix P-1).

Sewer laterals would be constructed during development of individual lots. Installation of new sewer mains and laterals would include trenching and temporary stockpiling of soils, which in turn could result in potential short-term soil erosion. However, as described above for water facilities, Campus Development construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. The SWPPP would describe BMPs and pollutant control measures that would be employed during Project construction to minimize pollutants, including erosion-induced siltation and incidental spills of petroleum products from construction equipment. As a result, impacts associated with upgrades of sewer conveyance infrastructure for the Campus Development would be ***less than significant***, and no mitigation is required.

Park

The proposed Park would include restrooms and water fountains, which would generate wastewater. A wastewater line to serve the Park would be installed in the Barton Street extension (Figure 3-7A[1] – Utility Extensions, On-Site Sewer). Similar to the Campus Development, installation of new wastewater lines would consist of either trenching to the depth of pipe placement or using a variety of different trenchless technology, which could result in potential short-term soil erosion. However, Park construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. With implementation of SWPPP BMPs, adverse impacts associated with new wastewater line installation for the Park would be ***less than significant***, and no mitigation is required.

Infrastructure Improvements

Infrastructure improvements associated within the Specific Plan include installation of utility and roadway networks throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank. Similar to the Campus Development, grading and construction for the infrastructure improvements could result in potential short-term soil erosion. However, wastewater infrastructure construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. With implementation of SWPPP BMPs, adverse impacts associated with construction of the infrastructure improvements would be ***less than significant***, and no mitigation is required.

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to wastewater conveyance.

Wastewater Treatment – Specific Plan Area

Campus Development

Construction

Portable toilets would be utilized during construction for the Campus Development. Portable toilet waste would be disposed of in accordance with Riverside County Ordinance No. 712, which requires all portable toilet waste to be transported to a disposal site approved by the County Health Officer. Therefore, ***no impacts*** would occur with respect to wastewater treatment.

Operations

Sewage from the Campus Specific Plan Area would be conveyed to the WWRF. As indicated in Table 4.17-3, the WWRF would treat an additional 426,422 gallons per day, or 0.43 mgd, in association with buildout of the Specific Plan Area, which includes the Campus Development.

Table 4.17-3. Projected On-Site Wastewater Generation

Land Use	Proposed Acreage	Wastewater Generation Factor (gallons per day per acre)	Wastewater Generated (gallons per day)
Mixed Use/Commercial	42.22	1,300	54,886
Business Park	65.32	1,300	84,916
Industrial	143.31	2,000	286,620
Public Facilities*	2.84	0	0
Open Space/Conservation	445.43	0	0
Parks/Open Space	78.00	0	0
Roadways	37.91	0	0
		Total	426,422

Source: Table 3-1, Summary of Wastewater Generation Factors within Western Municipal Water District's *Final Riverside Facilities Master Plan, Potable Water, Recycled Water & Wastewater* (Appendix P-2).

* Public facilities would include a sewer lift station and electrical substation, which would likely generate a nominal amount, if any, of wastewater. The wastewater generation factor for public facilities in Appendix P-2 presumably applies to manned facilities, such as police or fire stations.

The permitted design capacity of the WWRF is 3 mgd. Based on the 2021 *Riverside Facilities Master Plan, Potable Water, Recycled Water & Wastewater* (Appendix P-2) (Facilities Master Plan) the current average dry weather flow to the WWRF is 1.17 mgd and the peak wet weather flow is 4.91 mgd. Treatment plant capacity is evaluated against average dry weather flow, not wet weather flow.

Based on the Facilities Master Plan, existing base flow at the WWRF, based on recent developments, is 1.17 mgd and the treatment capacity is 3.0 mgd. Existing base flows calculated in the Facilities Master Plan did not include the proposed Project. Incorporating calculated Specific Plan wastewater flow of 0.43 mgd, the existing base flow at the WWRF would be 1.60 mgd, or 53% of capacity of the WWRF (Table 4.17-4). As a result, the projected wastewater flows of 0.43 mgd through Campus Development buildout could be accommodated by the WWRF current capacity.

In 30 years (i.e., considered near-term), the base flow at the WWRF is anticipated to be 2.08 mgd. Similar to existing wastewater flows, future base flows calculated in the Facilities Master Plan did not include the Specific Plan. Incorporating calculated Specific Plan wastewater flow of 0.43 mgd, the base flow at the WWRF in 30 years would be 2.51 mgd, or 84% of capacity of the WWRF (Table 4.17-4). Therefore, assuming a treatment capacity of 3.0 mgd, the WWRF would be capable of treating anticipated wastewater flows in the near term (30 years).

Recommendations for upgrades and/or expansion of the WWRF are appropriate in the event that inflows to the facility are greater than 75% of available capacity. Based on the anticipated treatment capacity of 84% in the near term, recommended Capital Improvement Projects in the Facilities Master Plan include a WWRF Expansion Study, which would consist of a preliminary analysis for expanding the capacity of the WWRF from 3 mgd to 5 mgd (Appendix P-2).

Table 4.17-4. Project Wastewater Treatment Capacity

	WWRF Base Flow (mgd)	WWRF Base Flow + Project (0.43) (mgd)	WWRF Treatment Capacity (mgd)	Excess Capacity (mgd)	% of Capacity of WWRF Utilized
Existing	1.17	1.60	3.0	1.40	53
Near Term (30 years)	2.08	2.51	3.0	0.49	84

Source: 2021 *Riverside Facilities Master Plan, Potable Water, Recycled Water & Wastewater* (Appendix P-2).
Note: mgd = million gallons per day.

In summary, the 3.0 mgd capacity of the WWRF would be sufficient to treat anticipated wastewater flows from the Campus Development over the next 30 years. As a result, Campus Development would not result in the relocation or construction of new or expanded wastewater treatment facilities. Impacts would be ***less than significant,*** and no mitigation is required.

Park

Construction

Portable toilets would be utilized during construction for the Park. Portable toilet waste would be disposed of in accordance with Riverside County Ordinance No. 712, which requires all portable toilet waste to be transported to a disposal site approved by the County Health Officer. Therefore, ***no impacts*** would occur with respect to wastewater treatment.

Operations

Treatment of wastewater from the proposed Park would be nominal. Environmental impacts described above for the Campus Development would apply to Park operations. Impacts would be ***less than significant,*** and no mitigation is required.

Infrastructure Improvements

Construction

Portable toilets would be utilized during infrastructure construction. Portable toilet waste would be disposed of in accordance with Riverside County Ordinance No. 712, which requires all portable toilet waste to be transported to a disposal site approved by the County Health Officer. Therefore, ***no impacts*** would occur with respect to wastewater treatment.

Operations

Operation of infrastructure improvements are anticipated to generate no wastewater; therefore, operations of the infrastructure improvements would have ***no impact*** on the environment.

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to wastewater treatment.

Stormwater Drainage – Specific Plan Area

Campus Development

Implementation of the proposed Campus Development would result in an increase in impervious surfaces and associated increase in stormwater runoff. As discussed in Section 4.9, Hydrology and Water Quality, a Project-specific hydrology/drainage report (Appendix K-1) and water quality/LID report (Appendix K-2) have been prepared for the rough graded lots. In addition, lot-specific water quality/LID reports (Appendices K-3 and K-4), and hydrology/drainage reports (Appendices K-5 and K-6) and have been completed for industrial Buildings B and C. To address the increased runoff, construction on each lot would feature private storm drain lines, collecting runoff from the site, which would flow into detention basins. Diversion structures that feature a weir with an orifice placed at a calculated height would be installed downstream of each detention system. This design would allow the design capture volume, as calculated per March JPA/Riverside County WQMP requirements, to flow to a modular wetland unit, while allowing higher flows to bypass the modular wetland unit system, while the weir and orifice hold back both the 2-year and 100-year storm, to existing conditions. Stormwater from the on-site stormwater detention system would then be transmitted to proposed storm drains within adjacent roadways. In addition, based on the March JPA WQMP Guidance Document, Buildings B and C would incorporate low-impact design features to minimize the long-term effects in post-storm runoff patterns. Stormwater management practices mandated by the County's Low-Impact Design BMP Design Manual are intended to encourage stormwater capture, infiltration, and reuse, resulting in a decrease in the rate and amount of surface runoff from the Specific Plan. **MM-HYD-3** requires development of lot-specific detention basins, as specified in lot-specific hydrology/drainage reports, prior to issuance of a building permit for Campus Development other than Buildings B and C.

A conceptual utility plan completed for the Specific Plan Area (Figure 3-7D) indicates that 18-, 24-, 30-, and 36-inch-diameter storm drains would be installed in streets. These proposed storm drains would detain and then discharge into existing defined surface drainage flow paths around the perimeter of the Project site. These existing surface drainages navigate through the Conservation Easement areas and are intercepted by existing off-site storm drains and conveyances. All storm drain discharge from the development is reduced to a level that is less than existing discharge rates to ensure that existing off-site storm drain lines and conveyances can adequately convey the proposed Project discharge. . Similar to that discussed for water line and sewer line upgrades, installation of new storm drains could result in potential short-term soil erosion. However, as discussed above for water facilities, construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require the development and implementation of a SWPPP. With implementation of SWPPP BMPs, impacts associated with upgrades of storm drains would be ***less than significant***, and no additional mitigation is required.

Park

As depicted on Figure 3-7D, Park construction would include installation of three short storm drain segments that would feed into existing surface drainages. Similar to the Campus Development, installation of new storm drains would consist of either trenching to the depth of pipe placement or using a variety of different trenchless technology, which could result in potential short-term soil erosion. However, Park construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development and implementation of a SWPPP. With implementation of SWPPP BMPs, adverse impacts associated with new storm drain construction would be ***less than significant***, and no mitigation is required.

Infrastructure Improvements

Storm drain infrastructure for the Specific Plan Area roadway network is discussed as part of the Campus Development analysis above. Surface storm drains would be constructed for the proposed water tank site, sewer lift station, and electrical substation. Similar to the Campus Development, installation of new storm drains could result in potential short-term soil erosion. However, storm drain construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. With implementation of SWPPP BMPs, adverse impacts associated with construction of new infrastructure improvements would be ***less than significant***, and no mitigation is required.

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to infrastructure upgrades.

Electric Power, Natural Gas, and Telecommunications – Specific Plan Area

Campus Development

As previously discussed, SCE would provide electrical power to the Specific Plan Area. Specific Plan implementation would result in the buildout of on-site electric power infrastructure. A conceptual utility plan completed for the Specific Plan Area (Figure 3-7E) indicates that electrical lines would be connected to existing facilities stubbed out at the western terminus of Cactus Avenue. In addition, electric utility lines would be installed in Barton Street, Airman Drive, Arclight Drive, Bunker Hill Drive, Brown Avenue, and Cactus Avenue. Discussed below as part of infrastructure improvements, an electrical substation would be constructed on a 1.10-acre parcel in the eastern portion of the Campus Specific Plan Area, east of the southeast corner of the Building B site. Additional infrastructure would be required for individual lot development. New electrical infrastructure would be confined to the Campus Development site and not to any centralized facilities.

The Specific Plan Area is currently served by SoCalGas. An existing on-site SoCalGas transmission line that traverses the proposed Campus Development would be relocated in conjunction with grading, consistent with the grading activities completed at the Specific Plan Area. SoCal Gas would be responsible for carrying out the pipeline improvements. Although the Specific Plan development would not use natural gas, conceptual utility plans (Figure 3-7H) identify the buildout of on-site natural gas infrastructure if SoCal Gas Company elects to install natural gas infrastructure. A natural gas line would be connected to existing facilities stubbed out at the western terminus of Cactus Avenue. Upgrades would be confined to the Specific Plan Area and not to any centralized facilities.

The Campus Development would be served by Frontier Communications and Spectrum Communications. Fiber optic and CATV would provide looped connections to both ends of the Barton Street extension (Figures 3-7F and 3-7G). Upgrades would be confined to the Specific Plan Area and not to any centralized facilities.

Similar to water and wastewater, installation of new underground electrical, natural gas, and telecommunication distribution lines could result in potential short-term soil erosion, as excavated and temporarily stockpiled soils would be susceptible to rainfall. However, as required by the Construction General Permit and the March JPA WQMP Guidance Document, the SWPPP would include standard BMPs and pollutant control measures during Campus Development construction to minimize pollutants, including erosion-induced siltation of downstream drainages and incidental spills of petroleum products from construction equipment. These required SWPPP BMPs would reduce

potential impacts associated with the installation of underground distribution lines to ***less than significant***, and no mitigation is required.

Park

As analyzed in this EIR, the proposed Park would include electric power for sports field lighting and other park uses. Similar to the Campus Development, installation of new electric lines would consist of either trenching to the depth of pipe placement or using a variety of different trenchless technology, which could result in potential short-term soil erosion. However, Park construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. With implementation of SWPPP BMPs, adverse impacts associated with new electric line construction would be ***less than significant***, and no mitigation is required.

The Park would not likely include natural gas lines or telecommunication lines; therefore, ***no impacts*** would occur.

Infrastructure Improvements

Infrastructure improvements would include installation of an electrical substation. water tank, and sewer lift station, which would likely include telecommunication equipment. Similar to the Campus Development, grading and construction for the infrastructure improvements could result in potential short-term soil erosion. However, infrastructure improvement construction would occur in accordance with the requirements of the Construction General Permit and the March JPA WQMP Guidance Document, which require development of a SWPPP. With implementation of SWPPP BMPs, adverse impacts associated with construction of the infrastructure improvements would be ***less than significant***, and no mitigation is required.

The infrastructure improvements would not likely include natural gas lines; therefore, ***no impacts*** would occur.

Conservation Easement

As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to electric power, natural gas, and telecommunication facilities.

Threshold UTL-2. ***Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?***

Water Demand – Specific Plan Area

Campus Development

Construction

Grading and construction for the Campus Development would include spraying with water trucks for soil compaction and dust suppression. Water would be provided by WMWD for such purposes. The water demand would be nominal in comparison to Campus Development operations, as described below. Because construction would not occur simultaneously with operations, there would be no increase in the annual water demand, over that described below for operations. As a result, WWMD would have sufficient water supplies available to serve the Campus Development construction and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be ***less than significant***, and no mitigation is required.

Operations

Based on the Project-specific Water Supply Assessment (WSA) (Appendix O), water demand for the Specific Plan was based on information submitted by March JPA (lead agency) and the Project applicant. Based on this information, it is estimated that the total Specific Plan water demand is approximately 382.47 acre-feet per year (AFY), including indoor and landscape use, including the proposed Park. Indoor water demand was calculated using the total estimated number of employees (i.e., approximately 2,600 employees), multiplied by 60 gallons per day, which is appropriate for the specified industrial/commercial land use type. To determine the projected annual indoor demand, the daily demand was multiplied by 260 working days (excluding weekends) to reach the total projected indoor water demand associated with the Specific Plan. Total projected annual indoor water demand is 124.33 AFY.

The Specific Plan buildout's landscape demand was determined using the California Water Efficient Landscape Worksheet, which uses landscape area (assumed to be a total of 4,700,321 square feet), irrigation method, and local evapotranspiration to determine efficient water use. The estimated total water use according to the California Water Efficient Landscape Worksheet is 258.14 AFY.

Water Supply Analysis

The 2020 WMWD UWMP has planned for growth within the District's service area over the next 20 years. The WMWD has made an allowance for future demand estimates based on historical growth rates in the service area. Based on these projections, it would appear that the WMWD has adequately made allowance for retail water supply-demand increases for both domestic and commercial water supply, including groundwater, over the next 20 years. According to Table 5-3, Projected Water Use, of the WMWD 2020 UWMP, WMWD projects an increase in potable water demand of 16,578 AFY between 2025 (68,426 AFY) and 2045 (85,004 AFY) (WMWD 2021). The WSA assumed that recycled water would not be delivered to the Specific Plan Area, based on the availability and location of current recycled water infrastructure. Based on that assumption, the water demand from the Specific Plan (382.47 AFY) would represent approximately 2.3% of this projected growth, which would not be considered substantial (Appendix O). Because reclaimed water would be provided to the Specific Plan Area, the [potable] water demand of 382.47 AFY is conservative. The actual potable water demand would be reduced by availability of reclaimed water.

The Project-specific WSA (Appendix O) provides a detailed assessment of whether the total projected water supplies available to WMWD during normal, single-dry, and multiple dry years, over the next 20-year period are sufficient to meet the projected water demand associated with the Specific Plan, in addition to existing and planned future uses. WMWD's calendar year 2020 retail water demand was 21,230 acre-feet, which is significantly lower than projected future demands in the UWMP. Therefore, surplus water supplies calculated in Tables 1, 2, and 3 of the WSA are a conservative measurement when compared to WMWD's actual retail demands over the last 5 years. As an additional conservative measure, the WSA specifically analyzes how WMWD would address potential shortfalls in the availability and reliability of imported water supplies in demonstrating that sufficient water supplies are available to WMWD to serve the Specific Plan. Any potential shortfalls in the availability of imported water supplies would place more reliance on groundwater supplies.

Based on the WSA analysis, the projected water demand of 382.47 AFY represents about 1.8% of WMWD's retail total water demand in 2020. Based on the information and analysis contained in this WSA, WMWD concludes that the total projected water supplies available to WMWD during normal, single-dry, and multiple-dry years throughout

the next 20-year period are sufficient to meet the projected water demands of the Specific Plan, in addition to WMWD's existing and planned future uses, in accordance with the standards set forth by SB 610.

The WMWD 2020 UWMP also includes a Water Supply Shortage Contingency Plan, which addresses the stages of response to a water shortage, such as a drought, that occurs over a period of time, as well as catastrophic supply interruptions that occur suddenly. The primary objective of the water shortage contingency plan is to ensure that WMWD has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions.

Furthermore, WMWD has planned projects aimed at meeting increase future water demands within its service area. These plans include increasing the groundwater recharge capabilities of the Arlington sub-basin, increasing the use of groundwater banking programs, increasing the use of desalinated water, and conjunctive use programs designed to increase regional water reliability (WMWD 2021). When coupled with regional groundwater management plans and the regulatory bindings of the basins, WMWD would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. As a result, impacts would be ***less than significant***, and no mitigation is required.

Park

Construction

Grading and construction for the Park would include spraying with water trucks for soil compaction and dust suppression. Water would be provided by WMWD for such purposes. The water demand would be nominal in comparison to Campus Development operations, as described above. Because Park construction would not occur simultaneously with operations, there would be no increase in the annual water demand, over that described below for operations. As a result, WWMD would have sufficient water supplies available to serve the Park construction and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be ***less than significant***, and no mitigation is required.

Operations

The proposed Park was included in the WSA, as discussed above for the Campus Development. Therefore, similar to the Campus Development, WMWD would have sufficient water supplies available to serve the Park and reasonably foreseeable future development during normal, dry, and multiple dry years. As a result, impacts would be ***less than significant***, and no mitigation is required.

Infrastructure Improvements

Construction

Grading and construction for the Specific Plan Area roadway network, water tank, sewer lift station, and electrical substation would include spraying with water trucks for soil compaction and dust suppression. Water would be provided by WMWD for such purposes. The water demand for infrastructure construction would be nominal in comparison to Campus Development operations, as described above. Because construction would not occur simultaneously with operations, there would be no increase in the annual water demand, over that described below for operations. As a result, WWMD would have sufficient water supplies available to serve the infrastructure

improvements construction and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be ***less than significant***, and no mitigation is required.

Operations

Operation of the proposed infrastructure improvements would not require a water supply in excess of that considered for the Specific Plan buildout in the WSA. Therefore, similar to the Campus Development, WMWD would have sufficient water supplies available to serve the Specific Plan and reasonably foreseeable future development during normal, dry, and multiple dry years. As a result, impacts would be ***less than significant***, and no mitigation is required.

Conservation Easement

The March JPA and developer propose to place the 445-acre Conservation Easement under a conservation easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to water use and water availability.

Threshold UTL-3. ***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?***

Wastewater Services – Specific Plan Area

Campus Development

As discussed for Threshold UTL-1, the Campus Development would convey wastewater off site through existing municipal sewage infrastructure to the WWRF, which has an approximate treatment capacity of 3 mgd. As shown in Table 4.17-3, the Campus Development wastewater generation would be 426,422 gallons per day, or 0.43 mgd. The WWRF currently treats 1.17 mgd. With full buildout of the Campus Development, the WWRF would treat an additional 0.43 mgd, for a total treatment commitment of 1.60 mgd. The permitted design capacity of the WWRF is 3 mgd. As a result, impacts would be ***less than significant,*** and no mitigation is required.

Park

Treatment of wastewater from the proposed Park would be nominal. Environmental impacts described for the Campus Development would apply to Park operations. Impacts would be ***less than significant,*** and no mitigation is required.

Infrastructure Improvements

Operations

Operation of infrastructure improvements is not anticipated to generate wastewater; therefore, the infrastructure improvements would have ***no impact*** on wastewater services.

Conservation Easement

The March JPA and developer propose to place the 445-acre Conservation Easement under a conservation easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to wastewater services within the Conservation Easement.

Threshold UTL-4. *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?*

Solid Waste Services – Specific Plan Area

Campus Development

Construction

Campus Development construction would result in the generation of solid waste such as scrap lumber, concrete, residual wastes, packing materials, and plastics. As discussed in Section 4.17.2, Relevant Plans, Policies, and Ordinances, 65% of construction and demolition waste must be diverted from landfills. Compliance with this requirement would reduce the effect of the proposed construction activities on regional landfills. The remaining 35% of construction and demolition material that is not required to be recycled would be disposed of by Waste Management of the Inland Empire at the Robert A. Nelson Transfer Station. From there, the waste would be disposed of at either El Sobrante, Lamb Canyon, or Badlands Landfill, or voluntarily recycled at a solid waste facility with available capacity. As of 2021, El Sobrante Landfill had a throughput capacity of 16,054 tons per day, has a remaining capacity of 143,977,170 cubic yards (38,912,749 tons), and is expected to operate until January 2051. In addition, the Lamb Canyon Sanitary Landfill has a maximum daily throughput of 5,000 tons per day, with an estimated remaining capacity of 19,242,950 cubic yards; and the Badlands Sanitary Landfill has a maximum daily throughput of 4,800 tons per day, with an estimated remaining capacity of 15,748,799 cubic yards.

Campus Development building contractors would be required to comply with all applicable federal, state, and local requirements involving solid waste, including reduction of construction waste mandated by the California Green Building Standards Code, Part 11 of Title 24. Based on the availability of landfill space in the region, in combination with compliance with applicable requirements involving solid waste, Campus Development construction solid waste generation would not be 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. Impacts would be ***less than significant***, and no mitigation is required.

Operations

Based on emissions modeling completed for Section 4.7, Greenhouse Gas Emissions, calculated solid waste generation associated with Campus Development is 13 tons per day (Table 4.17-5) (Appendix I).

Table 4.17-5. Projected On-Site Solid Waste Output

Land Use	Solid Waste (tons per year)
Unrefrigerated Warehouse	2,832
Office Park	1,692
Regional Shopping Center	112
Total (tons per year)	**4,636**
Total (tons per day)	**13**

Source: California Emissions Estimator Model (CalEEMod), see Appendix I, Greenhouse Gas Report, Section 8.2, Waste by Land Use

As shown in Table 4.17-5 above, the proposed Campus Development would generate a total of 13 tons per day of solid waste. The incremental increase in solid waste produced during operation of the Campus Development would be negligible in a regional context. Furthermore, the Specific Plan would be required to comply with all applicable federal, state, and local requirements involving solid waste. Therefore, Specific Plan solid waste generation would not be 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. Impacts would be ***less than significant***, and no mitigation is required.

Park

Construction

Similar to Campus Development, Park construction contractors would be required to comply with all applicable federal, state, and local requirements involving solid waste, including reduction of construction waste mandated by the California Green Building Standards Code, Part 11 of Title 24. Therefore, Park construction solid waste generation would not be 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. Impacts would be ***less than significant***, and no mitigation is required.

Operations

Park waste would be nominal in comparison to the Campus Development. Environmental impacts described for the Campus Development would apply to Park operations. Impacts would be ***less than significant,*** and no mitigation is required.

Infrastructure Improvements

Construction

Similar to Campus Development, infrastructure improvements construction contractors would be required to comply with all applicable federal, state, and local requirements involving solid waste, including reduction of construction waste mandated by the California Green Building Standards Code, Part 11 of Title 24. Therefore, infrastructure improvements construction solid waste generation would not be 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. Impacts would be ***less than significant***, and no mitigation is required.

Operations

Infrastructure improvements waste would be nominal in comparison to the Campus Development. Environmental impacts described for the Campus Development would apply to infrastructure improvements operations. Impacts would be ***less than significant,*** and no mitigation is required.

Conservation Easement

The March JPA and developer propose to place the 445.43-acre Conservation Easement under a conservation easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be ***no impact*** with respect to solid waste services.

Threshold UTL-5. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Solid Waste Services – Specific Plan Area

Campus Development

Construction

As described in Section 4.17.1, Existing Conditions, the El Sobrante, Lamb Canyon, and Badlands landfills are the closest landfills to the Project site. These facilities are regulated under federal, state, and local laws. Campus Development building contractors would be required to comply with all applicable federal, state, and local requirements involving solid waste. As discussed in Section 4.17.2, Relevant Plans, Policies, and Ordinances, Campus Development construction waste would comply with the solid waste reduction and diversion requirements set forth in AB 341, AB 939, AB 1327, and SB 1374. Project solid waste disposal would also be completed in compliance with California's 2021 Green Building Standards Code, which sets forth recycling requirements for construction and demolition projects. For residential and non-residential construction projects, 65% of the debris generated (by weight) must be recycled.

Project solid waste disposal would also be incompliance with policies and goals of the County of Riverside Source Reduction and Recycling Element, which is composed of the following nine components: Waste Generation Study Analysis, Source Reduction, Recycling, Composting, Special Wastes, Education and Public Information, Disposal Facility Capacity, Funding, and Integration.

As a result of Campus Development compliance with federal, state, and local management and reduction statutes and regulations related to solid waste, construction impacts are considered **less than significant**, and no mitigation is required.

Operations

Similar to that described for construction, Campus Development waste disposal would be completed in accordance with federal, state, and local statutes and regulations related to solid waste. In addition to the regulations cited for construction, AB 1826 (Chapter 727, Statutes of 2014) requires businesses to recycle their organic waste and requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses. 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. As a result of Campus Development compliance with federal, state, and local management and reduction statutes and regulations related to solid waste, operational impacts are considered **less than significant**, and no mitigation is required.

Park

Construction

Similar to Campus Development, Park construction contractors would be required to comply with all applicable federal, state, and local requirements involving solid waste, including reduction of construction waste mandated by the California Green Building Standards Code, Part 11 of Title 24. Therefore, compliance with federal, state, and

local management and reduction statutes and regulations related to solid waste, Park construction impacts are considered **less than significant**, and no mitigation is required.

Operations

Park waste would be nominal in comparison to the Campus Development. Environmental impacts described for the Campus Development would apply to Park operations. Impacts would be **less than significant,** and no mitigation is required.

Infrastructure Improvements

Construction

Similar to Campus Development, infrastructure improvements construction contractors would be required to comply with all applicable federal, state, and local requirements involving solid waste, including reduction of construction waste mandated by the California Green Building Standards Code, Part 11 of Title 24. Therefore, compliance with federal, state, and local management and reduction statutes and regulations related to solid waste, Park construction impacts are considered **less than significant**, and no mitigation is required.

Operations

Infrastructure improvements waste would be nominal in comparison to the Campus Development. Environmental impacts described for the Campus Development would apply to infrastructure improvements operations. Impacts would be **less than significant,** and no mitigation is required.

Conservation Easement

The March JPA and developer propose to place the 445.43-acre Conservation Easement under a conservation easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to solid waste services.

4.17.5 Mitigation Measures

Project impacts to utilities and service systems would be less than significant, and no additional mitigation is required.

4.17.6 Level of Significance After Mitigation

Project impacts to utilities and service systems would be less than significant, and no additional mitigation is required.

4.17.7 Cumulative Effects

Potable Water

Conveyance and Storage

Cumulative water demand is based on near-term (30 years) projected land use within the WMWD Riverside Retail Service Area. Near-term developments are developments already planned and to be built between 2020 and 2030. Five of the near-term developments have already begun construction, but large portions of these specific

developments remain undeveloped and are therefore included as near-term projects. Near-term residential land uses are based on unit factors, based on number of dwelling units, whereas non-residential land use factors are based on parcel acreage. All future irrigation water demands were assumed to be supplied by recycled/non-potable water. A percentage of each parcel was assumed to be irrigated based on land use type. Based on these projected land uses, WMWD would have sufficient conveyance and storage capacity for the next 30 years (Appendix P-1). As a result, water conveyance and storage impacts for the Project would not be cumulatively considerable. Impacts would be ***less than significant***, and no mitigation is required.

Water Supply

The proposed Project and related projects (as shown in Table 4-1 of this EIR) would be served by WMWD. Based on the WSA analysis, the proposed Project water demand of 382.47 AFY represents about 1.8% of WMWD's retail total water demand for 2020. Development of the proposed Project, in combination with related projects, would increase land-use intensities in the area, resulting in increased water usage. WMWD has planned projects aimed at meeting increased future water demands within its service area. These plans include increasing the groundwater recharge capabilities of the Arlington sub-basin, increasing the use of groundwater banking programs, increasing the use of desalinated water, and conjunctive use programs designed to increase regional water reliability. In addition, the WMWD 2020 UWMP includes a Water Supply Shortage Contingency Plan, which addresses the stages of response to a water shortage, such as a drought, that occurs over a period of time, as well as catastrophic supply interruptions that occur suddenly. The primary objective of the water shortage contingency plan is to ensure that WMWD has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions.

Based on the information and analysis contained in the Project WSA, WMWD concludes that the total projected water supplies available to WMWD during normal, single-dry, and multiple-dry years throughout the next 20-year period are sufficient to meet the projected water demands of the proposed Project, in addition to WMWD's existing and planned future uses, in accordance with the standards set forth by SB 610. These projections consider land use, water development programs and projects, and water conservation. To the extent that related projects are generally consistent with regional growth patterns and projections, the related projects would not be expected to result in increased water usage causing the need for new entitlements, resources, and/or treatment facilities that are not already being planned to accommodate regional growth forecasts.

Lastly, compliance with the California Green Building Code would be required for new related project development. For redevelopment projects, this generally indicates that newly installed appliances and plumbing would be more efficient than those used within the structures originally located on redevelopment sites. In addition, California Green Building Code standards require a mandatory reduction in outdoor water use, in accordance with the California Department of Water Resources' Model Water Efficient Landscape Ordinance. This would ensure that many of the related projects, as well as the Proposed Project, do not result in wasteful or inefficient use of limited water resources and may, in fact, result in an overall decrease in water use per person. As a result, water supply impacts from the Project would not be cumulatively considerable. Impacts would be ***less than significant***, and no mitigation is required.

Wastewater

Conveyance

The proposed Project and each related project would incrementally increase the amount of wastewater that is being generated in the area. With respect to wastewater conveyance, sewer plans have been provided depicting wastewater lines within the Project site and off-site leading into the WWRF. Similar to the Project, the capacity of receiving sewer lines associated with cumulative project development would be determined on a project-specific basis. Based on a sewer capacity study completed for the March Business Center, including the North Campus, South Campus, and West Campus, as well as existing sewer laterals feeding into the I-215 Trunk Sewer, the existing and proposed sewer facilities would have the capacity to accommodate increased cumulative-related wastewater flows. Projected wastewater flows were based on land uses/zoning and sewage generation factors, per the WMWD 2014 Sewer Master Plan. The proposed facilities were designed to convey all tributary flows without exceeding the allowable capacity of 75%, per WMWD requirements (Appendix P-2).

In the event that sewer upgrades are required, all construction work within the county/city public rights-of-way would be subject to local municipal code requirements. As a result, indirect cumulative impacts associated with off-site upgrades to sewer mains from the Project would not be cumulatively considerable. Impacts would be ***less than significant***, and no mitigation is required.

Treatment

As discussed for Threshold UTL-1, the proposed Project would convey wastewater off site through existing municipal sewage infrastructure to the WWRF, which has an approximate treatment capacity of 3 mgd. Incorporating calculated Project wastewater flow of 0.43 mgd, the existing base flow at the WWRF, based on recent developments, would be 1.60 mgd, or 53% of capacity of the WWRF (Table 4.17-4). As a result, the projected wastewater flows of 0.43 mgd through Project buildout could be accommodated by the current WWRF capacity. Cumulative wastewater demands/loads are based on near-term (30 years) projected land use within the WMWD Riverside Retail Service Area. Near-term developments are developments already planned and to be built between 2020 and 2030. Five of the near-term developments have already begun construction, but large portions of these specific developments remain undeveloped and are therefore included as near-term projects. Based on these projected land uses, the base flow at the WWRF in 30 years would be 2.51 mgd, or 84% of capacity of the WWRF. Therefore, assuming a treatment capacity of 3.0 mgd, the WWRF would be capable of treating anticipated wastewater flows for the next 30 years. Based on the anticipated treatment capacity of 84% in the near term, recommended Capital Improvement Projects in the Facilities Master Plan include a WWRF Expansion Study, which would consist of a preliminary analysis for expanding the capacity of the WWRF from 3 mgd to 5 mgd (Appendix P-1). As a result, the contribution of the Project to cumulative wastewater treatment impacts would not be cumulatively considerable. Impacts would be ***less than significant***, and no mitigation is required.

Solid Waste

Development of the proposed Project in combination with related projects would increase land-use intensities in the area, resulting in increased solid waste generation in the service area for El Sobrante, Lamb Canyon, and Badlands Landfills. However, as of 2021, El Sobrante Landfill had a throughput capacity of 16,054 tons per day, has a remaining capacity of 143,977,170 cubic yards, and is expected to operate until January 2051. In addition, the Lamb Canyon Sanitary Landfill has a maximum daily throughput of 5,000 tons per day, with an estimated remaining capacity of 19,242,950 cubic yards; and the Badlands Sanitary Landfill has a maximum daily

throughput of 4,800 tons per day, with an estimated remaining capacity of 15,748,799 cubic yards. Further, AB 939, or the Integrated Waste Management Act of 1989, mandates that cities and counties (including entities such as joint powers authorities) divert from landfills 50% of the total solid waste generated to recycling facilities. In order to maintain state requirements of diverting 50% of solid waste and to offset impacts associated with solid waste, the Proposed Project and all related projects would be required to implement waste reduction, diversion, and recycling during both demolition/construction and operation. Through compliance with the aforementioned March JPA General Plan goals and policies for solid waste and state solid waste diversion requirements and due to the recycling collection features that would be part of the proposed Project design and the design of other projects within the March JPA planning area pursuant to existing regulations, solid waste impacts from the Project would not be cumulatively considerable. Impacts would be ***less than significant***, and no mitigation is required.

Electric Power, Natural Gas, and Telecommunication

Completion of the proposed Project would require installation of new electric power, natural gas, and telecommunication infrastructure in roadways and rights-of-way associated with the mixed-use, business park, and industrial use rough-graded lots. New lateral connections would be installed during development of individual lots. Similarly, cumulative project development would occur incrementally on a project-by-project basis. Trenching and excavations completed for the new connections to existing electric, natural gas, and telecommunication infrastructure could result in potential short-term soil erosion, as excavated and temporarily stockpiled soils would be susceptible to rainfall. However, standard BMPs and pollutant control measures would be employed during Project construction to minimize pollutants, including erosion-induced siltation of downstream drainages and incidental spills of petroleum products from construction equipment. Individual projects would be required to provide for specific project needs. As a result, cumulative impacts of the Project associated with upgrades of electric, natural gas, and telecommunication facilities would not be cumulatively considerable. Impacts would be ***less than significant***, and no mitigation is required.

4.17.8 References Cited

CalRecycle (California Department of Resources Recycling and Recovery). 2021. Solid Waste Information System. Facility/Site Search. Accessed November 17, 2021. https://www2.calrecycle.ca.gov/SolidWaste/Site/Search.

CDWR (California Department of Water Resources). 2021. "SGMA Basin Prioritization Dashboard". Accessed November 16, 2021. https://gis.water.ca.gov/app/bp-dashboard/final/.

County of Riverside. 2014. *County of Riverside Environmental Impact Report, Public Review Draft, Section 4.10 Energy Resources.* Accessed November 17, 2021. https://planning.rctlma.org/Portals/14/genplan/general_plan_2014/EnvironmentalImpactReport/04-10_EnergyRsrcs_2014-04-07.pdf.

Kimley-Horn and Associates Inc. 2003a. *Final Focused Environmental Impact Report, March Business Center*. Prepared for March Joint Powers Authority, February 2003.

March JPA (Joint Powers Authority). 1999. Final General Plan of the March Joint Powers Authority.

MBCSP (March Business Center Specific Plan). 2016. *March Business Center Specific Plan*. Accessed November 17, 2021.

RCFCWCD (Riverside County Flood Control Water Conservation District). 2011. Design Handbook of Low Impact Development Best Management Practices. September 2011. Accessed September 28, 2022. http://content.rcflood.org/downloads/NPDES/Documents/LIDManual/LID_BMP_Design_Handbook.pdf.

WRCRWA (Western Riverside County Regional Wastewater Authority). 2021. "Treatment Plant Overview." Accessed November 16, 2021. https://www.wrcrwa.org/152/Treatment-Plant-Overview.

Western (Western Municipal Water District). 2014a. *Recycled Water Master Plan*. Prepared by Albert A. Webb Associates, June 2014.

Western. 2014b. Sewer Master Plan. Prepared by Albert A. Webb Associates, June 2014.

Western. 2016. *2015 Urban Water Management Plan Update*. Accessed November 16, 2021. https://www.wmwd.com/DocumentCenter/View/3162/Western_2015-UWMP_Final_Body-Only?bidId==.

Western. 2021. *2020 Urban Water Management Plan Update*. Accessed November 3, 2021. https://www.wmwd.com/DocumentCenter/View/5433/Western-Final-Adopted-UWMP_20210630?bidId=.

WMWD. 2021. "Western Water Recycling Facility (WWRF)." Accessed November 16, 2021. https://www.wmwd.com/187/Western-Water-Recycling-Facility-WWRF.

4.18 Wildfire

This section describes the existing wildfire conditions of the proposed West Campus Upper Plateau Project (Project) site and surrounding area, identifies the regulatory framework relevant to wildfire conditions, evaluates potential Project impacts related to wildfire and contribution to regional wildfire conditions, and identifies mitigation measures related to implementation of the proposed Project. Potential wildfire impacts resulting from construction and operation of the proposed Project were evaluated based on a review of existing resources, data, and applicable laws, regulations, guidelines, and standards. This section focuses on the potential impact of increased wildfire risk that may result from the proposed Project. The analysis is based, in part, on the following documents:

- Fire Protection Plan – West Campus Upper Plateau, prepared by Dudek (Appendix Q)

As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S).

4.18.1 Existing Conditions

Regional

Wildfire is a continuous threat in Southern California. Of particular concern is the wildland/urban interface, a geographic area where urban development either abuts or intermingles with wildland or vegetative fuels. Riverside County contains several miles of wildland/urban interface, where established development meets open space areas and canyons within urban and suburban areas. The region's climate, severe dry periods, vegetative fuel composition, and steep and varied terrain make the region susceptible to both wildland and urban fires. The shrub-dominated plant communities occurring throughout the region are highly flammable. Adaptations to the local dry Mediterranean climate include specialized roots, stems, and leaves. The latter two become available fuels of importance and contribute to wildfire intensity and spread. Santa Ana winds bring hot, dry desert air from the east into the region during late summer and fall, which increases wildland fire hazards during these seasons. Dry vegetation, low humidity, and high air temperature can combine to produce large-scale fire events. As Santa Ana

winds blow westward toward denser development, fires driven by these winds have the potential to result in a greater risk of property damage.

Project Location

The Project site is located approximately half a mile west of Interstate (I) 215. More specifically, the Project site is in the western portion of the March Joint Powers Authority (JPA) planning area, west of Cactus Avenue's current terminus, to the east and south of the Mission Grove neighborhood, and to the north of the Orangecrest neighborhood in the City of Riverside, California (Figure 3-1, Project Location). The Specific Plan Area would include the extensions of Cactus Avenue, Brown Street, and Barton Street.

Existing development within the Project site consists of a water tower, an existing public facility, paved and dirt access roads, and 16 bunkers that were previously used for munitions storage by the Air Force prior to March AFB's realignment in 1993. All bunkers are currently used by Pyro Spectaculars, Inc. for the storage of fireworks. While the Specific Plan Area encompasses existing development and previously disturbed land. The Conservation Easement primarily consists of open space and undeveloped land; however, there is a network of security roads that are used by the public as trails for passive recreation that would serve as fuel breaks and the Fire Department could determine if they would be usable for fire response operations during an emergency.

The Project site is surrounded by residential uses to the north, west, and south; the Meridian West industrial project, located within the March JPA planning area, to the east; and two new industrial buildings built by Exeter, located in Riverside County, to the east and north. The residential uses to the north and west are part of the Mission Grove neighborhood in the City of Riverside. The residential uses to the south are part of the Orangecrest neighborhood in the City of Riverside. The nearest residential area is located approximately 300 feet north of the Specific Plan Area. The closest schools to the Project site, Benjamin Franklin Elementary School Amelia Earhart Middle School, and the Grove Community Church Pre-school are located south of the Project site in the Orangecrest neighborhood. The Benjamin Franklin Elementary School is located approximately 0.8 miles south of the Project site and the Amelia Earhart Middle School is located approximately 1 mile south of the Project site.

Vegetation and Land Cover

The Project site supports fourteen vegetation communities and other land covers, as discussed in Section 4.3, Biological Resources, of this EIR. Vegetation communities and land uses mapped within the Project site are predominantly comprised of non-native grasslands, disturbed habitat and urban/developed land cover (, roads and structures). There are several small areas of native upland vegetation within the Project site, including flat-topped buckwheat, Encelia scrub, and Riversidian sage scrub. While there are no large stands of riparian vegetation communities within the Project site, there are small stands of southern riparian forest, southern willow scrub, and mulefat scrub on the site. Additionally, some of these small southern riparian forest stands are contiguous with larger areas of riparian habitat that lies adjacent to the Project site, especially in the eastern portion of the site.

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, non-native grass dominated plant communities become seasonally prone to ignition and produce lower intensity, higher spread rate fires. In comparison, California sagebrush scrub can produce higher heat intensity and higher flame lengths under strong, dry wind patterns, but

does not typically ignite or spread as quickly as light, flashy grass fuels. When modeling fire behavior, the corresponding fuel models for each of these vegetation types are designed to capture these differences.

Weather and Wind Patterns

Weather throughout Southern California is influenced by the Pacific Ocean and is frequently under the influence of a seasonal, migratory subtropical high-pressure cell known as the "Pacific High." Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds.

The prevailing wind pattern is from the west (on-shore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the west–southwest (sea) and at night, winds are from the northeast (land). During the summer season, the diurnal winds may average slightly higher than the winds during the winter season due to greater pressure gradient forces. Surface winds can also be influenced locally by topography and slope variations. The highest wind velocities are associated with downslope, canyon, and Santa Ana winds. The Project site does not include topography or slope variations that would create unusual weather conditions, such as high wind velocities, which would lead to increased fire risk. However, the site is subject to seasonally strong winds, such as Santa Ana winds, which can result in periodic extreme fire weather conditions that occur throughout Riverside County.

Typically, the highest fire danger is produced by the high-pressure systems that occur in the Great Basin, which result in the Santa Ana winds of Southern California. Sustained wind speeds recorded during recent major fires in Riverside County exceeded 30 miles per hour and sometimes even exceeded 50 miles per hour during extreme conditions. The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis during late summer and early fall. Santa Ana winds are warm winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of canyons and dissipate as they spread across valley floors. Santa Ana winds generally coincide with the regional drought period and the period of highest fire danger.

Topography

The topography of the Project site consists of low rolling hills, with undulating topography. Site elevations range from 1,765 feet above mean sea level (amsl) in the central portion to 1,645 feet amsl in the northeast portion of the site. Drainage is generally from the elevated central portion of the site to the perimeters, through natural drainage features incised into the rolling hills.

Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up-slope and slower spread down-slope. Terrain that forms a funneling effect, such as chimneys, chutes, or saddles on the landscape can result in especially intense fire behavior. Conversely, flat terrain tends to have little effect on fire spread, resulting in fires that are driven by vegetation and wind.

Topographic features that may present a fire spread facilitator are the slope and canyon alignments, which may serve to funnel or channel winds, thus increasing their velocity and potential for influencing wildfire behavior. From a regional perspective, the alignment of tributary canyons and dominant ridges is conducive to channeling and funneling wind, thereby increasing the potential for more extreme wildfire behavior in the region.

Fire History

The California Department of Forestry and Fire Protection's (CAL FIRE) Fire and Resource Assessment Program (FRAP) database provides data documenting areas of significant fire hazards throughout the state pursuant to California Public Resources Codes Sections 4201–4204. Geographic areas of the state are classified as either Very High, High, or Moderate Fire Hazard Severity Zones (FHSZs). These areas are also classified for Local Responsibility Areas (LRAs), State Responsibility Areas (SRAs), and Federal Responsibility Areas (FRAs) which indicates areas where the local, state, or federal government assume financial responsibility for fire prevention and protection.

As presented in Figures 2a through 2c in Appendix Q, Riverside County Fire Hazard Severity Zones Map, CAL FIRE Fire Hazard Severity Zones Map, and Riverside County Wildland Urban Interface Map the Project site is not located in an area designated by the Riverside County's General Plan Safety Element or CAL FIRE as an FHSZ (CAL FIRE 2007; CAL FIRE 2022; County of Riverside 2021). The Project site, formerly identified as a Federal Responsibility Area, was reclassified in a recent update of the Riverside County General Plan Safety Element as March Joint Powers Authority with no FHSZ designation. As the lands have been reclassified, the Project site would be considered within a State Responsibility Area, as the Project site is under Riverside County jurisdiction. Fire hazard severity classifications consider vegetation, topography, weather, crown fire production, steep terrain, and ember production and movement.

Fire history data provides valuable information regarding fire spread, fire frequency, ignition sources, and vegetation/fuel mosaics across a given landscape. The fire history information presented below comes from the CAL FIRE FRAP database.[1] The FRAP database summarizes fire perimeter data for fires over 10 acres occurring since the late 1800s. Fire history recorded for the Project area is presented in Table 4.18-1.

According to available data from the CAL FIRE FRAP database, 39 fires have burned within a 5-mile vicinity of the Project site since the beginning of the historical fire data record. Recorded wildfires within 5 miles of the Project site range from 40 acres to 5,277 acres (1960 unnamed fire) and the average fire size is 1,197 acres (not including fires smaller than 10 acres). According to the FRAP database, there have been no fires that have burned on the Project site (CAL FIRE 2021).

Table 4.18-1. Fire History within 5 Miles of the Project Site

Fire Year	Fire Name	Interval (years)	Total Area Burned (acres)
1960	Unnamed	0	5276.9
1962	Unnamed	2	353.9
1962	Unnamed	0	1619.8
1963	Railroad #26	1	1331.9
1963	Unnamed	0	957.4
1970	Reche	7	3864.5
1970	Box	0	317.5
1970	Box #11	0	1518.2
1973	Unnamed	3	2620.6
1976	Vista	3	3466.8

[1] Based on polygon geographic information system data from CAL FIRE's FRAP, which includes data from CAL FIRE, U.S. Department of Agriculture's Forest Service Region 5, Bureau of Land Management, National Park Service, Contract Counties and other agencies. The data set is a comprehensive fire perimeter geographic information system layer for public and private lands throughout the state and covers fires 10 acres and greater between 1878 and 2018.

Table 4.18-1. Fire History within 5 Miles of the Project Site

Fire Year	Fire Name	Interval (years)	Total Area Burned (acres)
1979	Unnamed	3	813.3
1979	Brown	0	592.2
1979	Springs	0	430.5
1979	Unnamed	0	123.3
1980	Box	1	384.1
1980	Springs	0	589.3
1980	Unnamed	0	172.3
1980	Unnamed	0	720.0
1980	Treemont	0	536.2
1980	Railroad	0	1586.6
1981	Colton	1	4051.0
1981	Spruce (Assist)	0	1709.5
1982	Blaine	1	411.3
1983	Springs	1	224.9
1988	Springs #361	5	412.0
1988	Springs	0	649.0
1989	Park	1	1049.1
1989	Springs	0	224.9
1992	Orange	3	268.2
1993	Box Springs	1	2805.6
1995	Echo	2	372.1
1995	Vista	0	125.7
1995	Reche	0	1481.9
1995	Seaton	0	127.2
2001	Watkins	6	1404.2
2003	Pass	2	2455.8
2013	Heacock	10	40.6
2017	Opera	4	999.6
2017	Blaine	0	577.7

Source: CAL FIRE 2021.

Based on fire history, wildfire risk for the Project area is associated primarily with a Santa Ana wind-driven wildfire burning or spotting onto the site from the north or east, although a fire approaching from the south during more typical on-shore weather patterns is possible.

Fire Hazard Mapping

CAL FIRE's FRAP database also includes map data documenting areas of significant fire hazards in the state. These maps categorize geographic areas of the state into different FHSZs. The classifications include Non-Wildland, Non-Urban, Moderate, High, and Very High. CAL FIRE uses FHSZs to classify anticipated fire-related hazards for the entire state, and includes classifications for State Responsibility Areas, Local Responsibility Areas, and Federal Responsibility Areas. Fire hazard severity classifications account for vegetation, topography, weather, crown fire production, and ember production and movement. The Project site, formerly identified as a Federal Responsibility Area, was reclassified in a recent update of the Riverside County General Plan Safety Element as March Joint Powers Authority with no FHSZ designation. As the lands were reclassified, the Project site would be considered within a

State Responsibility Area, as the Project site is under Riverside County jurisdiction. Furthermore, the Project area is not within a designated FHSZ (CAL FIRE 2007; CAL FIRE 2022; County of Riverside 2021). The nearest mapped FHSZ, which is also the nearest Very High FHSZ, is located approximately 1.15 miles west of the Project's Conservation Easement, and 1.45 miles west of the Specific Plan Area (CAL FIRE 2007).

Emergency Response

The Project site is located within the jurisdiction of the Riverside County Fire Department (RCFD); however, the closest responding fire station to the Project site is the City of Riverside Fire Department (RFD) Station 11. There are mutual aid agreements in place with neighboring fire agencies and typically include interdependencies that exist among the region's fire protection agencies for structural and medical responses, which are primarily associated with the peripheral "edges" of each agency's boundary.

The Project site is located within RCFD response area; however, the closest fire station to the Project site is RFD Station 11 (Orange Crest), which is located at 19595 Orange Terrace Pkwy, Riverside, California, approximately 1.6 miles southwest of the Project site's entrance at Barton Street. RFD Station 13 is located at 6490 Sycamore Canyon Boulevard, Riverside, California, approximately 2.2 miles north of the Project site's entrance on Cactus Avenue. The closest RCFD is Station 65 is located at 15111 Indian Street, Moreno Valley, California, approximately 3.9 miles to the east of the Project site. As depicted in Figure 5 of Appendix Q, Fire Protection Plan (FPP), other nearby fire stations that could respond to the Project site include Moreno Valley Fire Department Station 6, RFD Station 14, RFD Station 9, and RCFD Station 4 among others. The County of Riverside contracts for emergency response from CAL FIRE, to serve as the RCFD (RCFD 2020).

In addition, the Project site is located within the March JPA planning area; March JPA is a public entity created for addressing the use, reuse, and joint use of realigned March Air Force Base (March JPA 2020). In addition, the County of Riverside's Emergency Management Department is responsible for the operation of the County of Riverside's Emergency Operations Centers. There are two Riverside County Emergency Operations Centers situated in the cities of Riverside and Indio. The Emergency Operations Centers are maintained in a constant state of readiness to activate quickly once the need arises in order to share information, coordinate resources, and create situational awareness among response agencies and local jurisdictions. The County of Riverside has a Local Hazard Mitigation Plan, which was last revised in 2018. The Local Hazard Mitigation Plan aims to reduce the impact of a disaster by identifying hazards and developing ways to decrease their impact (County of Riverside Emergency Management Department 2018).

Environmental Effects of Wildfires

Wildfire risk can be detrimental to people and structures indirectly through the exposure of pollutant concentrations.

Air Quality

Carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons, and other constituent materials are all present in wildfire smoke. The specific composition of smoke depends largely on the fuel type (vegetation types contain different amounts of cellulose, oils, waxes, and starches, which when ignited produce different compounds). In addition, hazardous air pollutants and toxic air contaminants, such as benzene and formaldehyde, are also present in smoke. However, the principal pollutant of concern from wildfire smoke is particulate matter. In general, particulate matter from smoke is very small in size and can be inhaled into the deepest recesses of the lungs, presenting a serious health concern (CARB et al. 2019).

Factors including weather, stage of fire, and terrain can all dictate fire behavior and the impact of smoke on the ground. Wind, for instance, generally results in lower smoke concentrations because wind causes smoke to mix with a larger volume of air. Regional weather systems, such as the Santa Ana winds of Southern California, on the other hand, can spread fire quickly and result in numerous devastating impacts. The Santa Ana winds effectively work to reverse the typical onshore flow patterns and blow winds from dry, desert Great Basin areas westward toward the coast. As a result, coastal communities can be impacted by fires originating in inland areas (CARB et al. 2019).

Large quantities of pollutants can be released by wildland fires over a relatively short period of time. Air quality during large fires can become severely hazardous and can remain impaired for several days after the fire is ignited.

Water Quality

Fire can impact water quality by increasing potential for erosion and sedimentation in areas where vegetation has been burned by fire, resulting in increased water temperature through removal or drastic modification of shade-providing trees and vegetation. Water chemistry can also be altered through the introduction of pollutants and chemical constituents. Aquatic environments may also be impacted through the introduction of fire-retardant chemicals used during firefighting activities.

Erosion and Sedimentation

Watersheds severely burned by wildfire are vulnerable to accelerated rates of soil erosion and can experience large amounts of post-fire sediment deposits. Increases in post-fire suspended sediments in streams and lakes (in addition to possible increases in turbidity) can result from erosion and overland flow, channel scouring, and creep accumulations in stream channels after an event (USDA 2005). While less is known regarding the effect of fire on turbidity, it has been observed that post-fire turbidity levels in stream water are affected by the steepness of the devastated watershed (USDA 2005). The little data available regarding post-fire turbidity levels has indicated that U.S. Environmental Protection Agency water quality standard for turbidity can be exceeded after a fire event (USDA 2005). The threat to water quality from erosion following wildfire was analyzed by CAL FIRE (2009). This analysis provides an estimated expected erosion rate if an area experiences a high severity fire and considers information on fire rotation to better identify locations that are more likely to experience frequent high severity fires (CAL FIRE 2009).

4.18.2 Relevant Plans, Policies, and Ordinances

This section discusses federal, state, and regional environmental regulations, plans, and standards related to wildfire that may be applicable to the proposed Project.

Federal

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. National Fire Protection Association standards are recommended guidelines and nationally accepted good practices in fire protection, but do not constitute binding laws or codes unless adopted as such or referenced as such by the California Fire Code (CFC) or the local fire agency.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995, updated in 2001, and again in 2009 by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgement of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation are founded on guiding principles, found in the Guidance for Implementation of Federal Wildland Fire Management Policy (National Wildfire Coordinating Group 2009). The Federal Wildland Fire Management Policy provides recommended guidelines and nationally accepted good practices in fire protection; however, these do not constitute binding laws or codes unless adopted as such or referenced as such by the CFC or the local fire agency.

National Fire Plan

The National Fire Plan, officially titled Managing the Impacts of Wildfire on Communities and the Environment: A Report to the President In Response to the Wildfires of 2000, was a presidential directive in 2000 in response to severe wildland fires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and providing assurances of sufficient firefighting capacity in the future. The plan addresses five key points: Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability. The plan continues to provide invaluable technical, financial, and resource guidance and support for wildland fire management across the United States. The U.S. Forest Service and the Department of the Interior are working to successfully implement the key points outlined in the plan (USFS 2000). The National Fire Plan provides recommended guidelines and nationally accepted good practices in fire protection; however, these do not constitute binding laws or codes unless adopted as such or referenced as such by the CFC or the local fire agency.

International Fire Code

Created by the International Code Council, the International Fire Code addresses a wide array of conditions hazardous to life and property, including fire, explosions, and hazardous materials handling or usage.[2] The International Fire Code places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the International Fire Code uses a hazards classification system to determine the appropriate measures to be incorporated to protect life and property (often these measures include construction standards and specialized equipment). The International Fire Code uses a permit system (based on hazard classification) to ensure that required measures are instituted where applicable (International Code Council 2018). The International Fire Code provides recommended guidelines and accepted good practices in fire protection; however, these do not constitute binding laws or codes unless adopted as such or referenced as such by the CFC or the local fire agency.

International Wildland–Urban Interface Code

The International Wildland–Urban Interface Code is published by the International Code Council and is a model code addressing wildfire issues. The International Wildland–Urban Interface Code provides recommended guidelines and accepted good practices in fire protection; however, these do not constitute binding laws or codes unless adopted as such or referenced as such by the CFC or the local fire agency.

[2] The International Fire Code is not a federal regulation, but rather a system of international requirements set by the International Code Council.

Uniform Fire Code

The Uniform Fire Code contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The code contains specialized technical regulations related to fire and life safety.

State

California Government Code

California Government Code Sections 51175 through 51189 provide guidance for classifying lands in California as fire hazard areas and provide requirements for management of property within those lands. CAL FIRE is responsible for classifying FHSZs based on statewide criteria and makes the information available for public review. Further, local agencies must designate, by ordinance, Very High FHSZs within their jurisdiction based on the recommendations of CAL FIRE.

Section 51182 sets forth requirements for maintaining property within very high fire hazard severity zone areas, such as defensible space and vegetative fuels management. Among other requirements, defensible space consisting of 100 feet of fuel modification must be maintained on each side of a structure, but not beyond the property line without written consent by the adjacent owner. Further, trees must be trimmed from within 10 feet of the outlet of a chimney or stovepipe, vegetation near buildings must be maintained, and roofs of structures must be cleared of vegetative materials. Under Section 51183, local agencies may exempt, or vary the defensible space requirements for, buildings with an exterior constructed entirely of nonflammable materials.

California Code of Regulations

Title 14 Natural Resources

Title 14, Division 1.5, Chapter 7, Subchapter 3, Fire Hazard, also sets forth requirements for defensible space if the distances specified above cannot be met. For example, options with similar practical effects include noncombustible block walls or fences, the placement of 5 feet of noncombustible material horizontally around the structure, installing hardscape landscaping or reducing exposed windows on the side of the structure with a less than 30-foot setback, or additional structure hardening such as those required in the California Building Code (CBC), (California Code of Regulations Title 24, Part 2, Chapter 7A).

Title 24 California Building Standards Code

California Building Code

Part 2 of Title 24 contains the CBC. Chapter 7A of Part 2 of Title 24 of the CBC regulates building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a wildland/urban interface fire area. The purpose of Chapter 7A of the CBC is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any FHSZ within a State Responsibility Area or a wildland/urban interface fire area to resist the intrusion of flames or burning embers projected by a vegetation fire, and to contribute to a systematic reduction in conflagration losses. New buildings located in such areas must

comply with the ignition-resistant construction standards outlined in CBC Chapter 7A. The CBC is updated and republished every 3 years by the California Building Standards Commission.

California Fire Code

Chapter 9 of Title 24 contains the CFC, which incorporates by adoption the International Fire Code with necessary California amendments. The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. CFC Chapter 33 prescribes minimum safeguards for construction, alteration and demolition operations to provide reasonable safety to life and property from fire during such operations. CFC Chapter 49 contains minimum standards for development in the wildland–urban interface and fire hazard areas.

The CFC and Office of the State Fire Marshal provide regulations and guidance for local agencies in the development and enforcement of fire safety standards. The CFC is updated and republished every 3 years by the California Building Standards Commission.

California Public Resources Code

California Public Resources Code Section 4290 requires minimum fire safety standards related to defensible space and is applicable to residential, commercial and industrial building construction in State Responsibility Area lands and lands classified and designated as Very High FHSZs. These regulations include road standards for fire apparatus access, standards for signs identifying roads and buildings, standards for fuel breaks and green belts, and minimum water supply requirements. It should be noted that these regulations do not supersede local regulations which equal or exceed minimum regulations required by the state. It should also be noted that the Project site is not within a designated Very High FHSZ.

California Public Resources Code Section 4291 requires a reduction of fire hazards around buildings located adjacent to mountainous areas, forest-covered lands, brush-covered lands, grass-covered lands or land that is covered in flammable material. Section 4291 requires the maintenance of a minimum 100 feet of vegetation management around all buildings and is the primary mechanism for conducting fire prevention activities on private property within CAL FIRE jurisdiction. Further, California Public Resources Code Section 4291 requires the removal of dead or dying vegetative materials from the roof of a structure and requires that trees and shrubs be trimmed from within 10 feet of the outlet of a chimney or stovepipe. Exemptions may apply for buildings with an exterior constructed entirely of nonflammable materials.

California Department of Forestry and Fire Protection

CAL FIRE is tasked with reducing wildfire-related impacts and enhancing California's resources. CAL FIRE responds to all types of emergencies including wildland fires and residential/commercial structure fires. In addition, CAL FIRE is responsible for the protection of approximately 31 million acres of private land within the state and, at the local level, is responsible for inspecting defensible space around private residences. CAL FIRE is responsible for enforcing State of California fire safety codes included in the California Code of Regulations and California Public Resources Code. Public Resources Code Section 4291 states generally that any person operating or owning any structure located on brush-covered lands or land covered with flammable material is required to maintain defensible space around the structure. California Code of Regulations Title 14 Section 1254 identifies minimum clearance requirements required around utility poles. In State Responsibility Areas within the jurisdiction of CAL FIRE, the Fire Safety Inspection Program is an important tool for community outreach and enforcement of state fire codes.

CAL FIRE also inspects utility facilities and makes recommendations regarding improvements in facility design and infrastructure. Joint inspections of facilities by CAL FIRE and the utility owner are recommended by CAL FIRE so that each entity may assess the current state of the facility and successfully implement fire prevention techniques and policies. Violations of state fire codes discovered during inspections are required to be brought into compliance with the established codes. If a CAL FIRE investigation reveals that a wildfire occurred as a result of a violation of a law or as a result of negligence, the responsible party could face criminal and/or civil penalties. In cases where a violation of a law or negligence has occurred, CAL FIRE has established the Civil Cost Recovery Program, which requires parties liable for wildfires to pay for wildfire-related damages.

Fire Hazard Severity Zoning

CAL FIRE mapped FHSZs in Riverside County based on fuel loading, slope, fire history, weather, and other relevant factors as directed by Public Resources Code Sections 4201–4204 and Government Code Sections 51175-51189. FHSZs are ranked from Moderate to Very High and are categorized for fire protection within a Federal Responsibility Area, State Responsibility Area, or Local Responsibility Area under the jurisdiction of a federal agency, CAL FIRE, or a local agency, respectively.

California Strategic Fire Plan

The 2018 Strategic Fire Plan for California reflects CAL FIRE's focus on (1) fire prevention and suppression activities to protect lives, property, and ecosystem services, and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. The Strategic Fire Plan for California provides a vision for a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships (CAL FIRE 2018). Plan goals include the following:

1. Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the collaborative development and sharing of all analyses and data collection across all ownerships for consistency in type and kind.
    a. Promote and support local land use planning processes as they relate to: (a) protection of life, property, and natural resources from risks associated with wildland fire, and (b) individual landowner objectives and responsibilities.
    b. Support and participate in the collaborative development and implementation of local, county and regional plans that address fire protection and landowner objectives.
    c. Increase fire prevention awareness, knowledge and actions implemented by individuals and communities to reduce human loss, property damage and impacts to natural resources from wildland fires.
    d. Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.
    e. Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.
    f. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
    g. Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

California Emergency Services Act

The California Emergency Services Act was adopted to establish the state's roles and responsibilities during human-caused or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or resources of the state. This act is intended to protect health and safety by preserving the lives and property of the people of the state.

California Natural Disaster Assistance Act

The California Natural Disaster Assistance Act provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The California Natural Disaster Assistance Act is activated after a local declaration of emergency and the California Emergency Management Agency gives concurrence with the local declaration, or after the governor issues a proclamation of a state emergency. Once the act is activated, the local government is eligible for certain types of assistance, depending on the specific declaration or proclamation issued.

Mutual Aid Agreements

The California Disaster and Civil Defense Master Mutual Aid Agreement, as provided by the California Emergency Services Act, provides statewide mutual aid between and among local jurisdictions and the state. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever local resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities but can give and receive help whenever needed. The RCFD participates in these mutual aid, automatic aid and other agreements with CAL FIRE and surrounding fire departments. In some instances, the closest available resource may come from another fire department.

Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under CEQA

In October 2022, the California Office of the Attorney General issued guidance (2022 AG Guidance) outlining best practices for analyzing and mitigating wildfire impacts of development projects under the California Environmental Quality Act (CEQA) The 2022 AG Guidance is intended to help local governments' evaluation and approval considerations for development projects in fire-prone areas, and to help project design in a way that minimizes wildfire ignition and incorporates emergency access and evacuation measures. The 2022 AG Guidance recommends the following:

- Baseline Conditions - An EIR's discussion of existing environmental (baseline) conditions should include information about open space areas and habitats within the project area that may be fire prone, a discussion of fire history and fuels on the project site and existing available water supplies for fire-fighting.
- Thresholds of Significance - To identify when an increase in wildfire risk is considered a "significant impact" under CEQA, relevant factors include: (1) the project's impacts on ignition risk; (2) the likelihood of fire spread; and (3) the extent of exposure for existing and new residents, based on various fire scenarios. The 2022 AG Guidance notes that "wildfire ignitions are primarily human-caused in California."
- Modeling - Modeling fire scenarios is to "quantify" increased wildfire risks resulting from a project adding more people to wildfire prone areas and assessing risks according to the threshold of significance, including fires that start in, near or far from the project site and "extreme weather conditions that exacerbate fire spread". The 2022 AG Guidance states that a conclusion that conversion of wildland vegetation into paved

development "reduces or does not increase wildfire risk" is "contrary to existing evidence" and cannot be used to avoid analyzing and modeling wildfire risk.

To qualitatively assess a project's impact on wildfire risk, the 2022 AG Guidance recommends considering the following relevant variables:

- Project Density - Project density influences how likely a fire is to start or spread and how likely it is that occupants will be in danger. The 2022 AG Guidance states that "Fire spread and structure loss is more likely to occur in low- to intermediate-density developments."
- Location in the Landscape - Where a project's structures are placed in the landscape relative to fire environment features (vegetation, topographical features, and wind alignments) also influences wildfire risk. Terrain including wind corridors or steep slopes may increase risk while flatter terrain and natural fire breaks may reduce risk if the project is "strategically located" should be considered.
- Water Supply and Infrastructure – In addition to analyzing the water supply and infrastructure needed to address firefighting within the project site, the potential loss of water pressure or power during a fire should also be considered.

For potential measures to reduce wildfire risk, the 2022 AG Guidance recommends that wildfire reduction measures be tailored to the specifics of the project, the surrounding landscape, and nearby existing uses. The 2022 AG Guidance recommends lead agencies consider:

- Increasing residential density and consolidated project design, relying on higher density infill developments "as much as possible."
- Avoiding and minimizing low-density development patterns or "leapfrog-type" developments with undeveloped wildland between developed areas.
- Decreasing a project's "edge" or wildland interface area and creating buffer zones and defensible space measures within and adjacent to the project.
- Siting projects to maximize the role of low-flammability landscape features and limiting development along steep slopes and amidst rugged terrain.
- Undergrounding power lines.
- Upgrading building materials and installation techniques beyond applicable building code requirements to increase a structure's resistance to heat, flames and embers (i.e. "fire hardening"), and requiring fire-hardened communication facilities (including internet) to the project site.
- Requiring on-site water supply and/or storage to augment ordinary supplies that may be lost during a wildfire.
- Parking limitations to ensure access roads are not clogged with parked vehicles.
- Placement of development close to adequate emergency services, existing or planned ingress/egress, and designated evacuation routes.

In addition to evaluating the potential increased risk of ignition, the 2022 AG Guidance recommends, for a project located in HFHSZ/ VHFHSZ, the lead agency should analyze the project's impact on evacuation and emergency access. This analysis is relative to the project's particular impacts and risks (e.g., higher density infill projects within developed areas would require less detailed analysis than a new low-density development within a high wildfire risk area and/or surrounded by open space). Additionally, the 2022 AG Guidance recommends that evacuation modeling and planning should be required for all projects located in HFHSZ/ VHFHSZ that present an increased risk of ignition and/or evacuation impacts. Lead agencies should require evacuation modeling and planning to be

developed prior to project approval in order to provide maximum flexibility in design modifications necessary to address wildfire risks and impacts. The 2022 AG Guidance recommends evacuation modeling and analysis augment existing information when necessary:

- Evaluation of the capacity of roadways to accommodate project and community evacuation and simultaneous emergency access.
- Assessment of the timing for evacuation.
- Identification of alternative plans for evacuation.
- Evaluation of the project's impacts on existing evacuation plans.
- Consideration of the adequacy of emergency access, including the project's proximity to existing fire services and the capacity of existing services.
- Traffic monitoring to quantify travel times under various likely scenarios.

In consideration of the above, the 2022 AG Guidance encourages lead agencies to develop thresholds of significance for evacuation times based on community-wide standards. Any conclusion that an increase in evacuation times is a less than significant impact should be based on a threshold of significance that reflects community-wide goals and standards. Thresholds should also consider consistency with an adopted emergency operations or evacuation plan, a safety element updated to integrate wildfire and evacuation concerns or recommendations developed by CAL FIRE relating to safety of subdivisions. The potential to minimize on-road traffic when it is considered necessary and/or safer by temporarily providing refuge on-site in protected structures offers a contingency not available to all communities/developments and assists in providing flexibility and options for emergency managers.

The 2022 AG Guidance does not impose additional legal requirements on local governments, nor does it alter any applicable laws or regulations.

Local

The Project would be subject to state and federal agency planning documents described above, as well as the local planning documents such as the March JPA General Plan and the March JPA Development Code.

March JPA General Plan

Safety/Risk Management Element

The Safety/Risk Management Element of the March JPA General Plan is intended to provide a broad approach for preventing hazardous conditions in the Planning Area and reducing and/or managing existing hazards to acceptable levels. The Safety/Risk Management Element includes an analysis and sets forth goals and policies related to wildland and urban fires and evacuation routes and water supply for firefighting efforts (March JPA 1999).

March JPA Development Code

Section 9.10.070 – Fire and Explosive Hazards

The March JPA Development Code contains specific development standards and regulations, including Section 9.10.070, which outlines fire and explosive hazard regulations for operation and activities in accordance with the Uniform Fire Code.

Riverside County Fire Department Fire Prevention Standard No. 06-01

RCFD Fire Prevention Standard No. 06-01 refers to sprinkler system design density in speculative use buildings. This standard was developed to assist in determining the minimum requirements for fire sprinkler system design densities for buildings where the specific tenant and use of the building have not been defined at the time a permit is issued. The actual design of fire sprinkler systems must be based on the National Fire Protection Association Standard for the Installation of Sprinkler Systems (NFPA 13), adopted by the current California Building and Fire Codes. When fire sprinkler systems are required in buildings of undetermined use, they shall be designed with a sprinkler density of not less than that required for Ordinary Hazard Group 2 use with a minimum fire sprinkler design area of 3,000 square feet.

Riverside County Ordinances No. 460 and No. 787-9

A minimum fire flow standard of 4,000 gallons per minute at 20 pounds per square inch residual operating pressure is required for planning purposes. All water mains and fire hydrants providing required fire flows shall be constructed in accordance with the appropriate sections of Riverside County Ordinances No. 460 and/or No. 787-9 and are subject to review and approval by the RCFD. Until specific users for proposed speculative use buildings are defined for each lot, the required parcel specific fire flow requirements cannot be determined by the fire department. For uses with a larger floor area, such as warehouses, this fire flow standard may need to be greater and will be determined by the RCFD during final design for each lot. Each proposed user will be required to perform a fire flow analysis for the parcel to confirm the fire flow rates (velocities and pressures) meet the thresholds in accordance with the RCFD requirements. If the required fire flow is higher than the 4,000-gallons-per-minute planning guideline, as determined by the fire department, the user may need to incorporate additional measures.

County of Riverside Multi-Jurisdictional Local Hazard Mitigation Plan

The County of Riverside's Multi-Jurisdictional Local Hazard Mitigation Plan is implemented by the County of Riverside Emergency Management Department. The Multi-Jurisdictional Hazard Mitigation Plan is a County-wide plan that identifies hazards, reviews and assesses past disaster occurrences, estimates the probability of future occurrences and sets goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-man hazards The plan identifies vulnerabilities, provides recommendations for prioritized mitigation actions, evaluates resources and identifies mitigation shortcomings, provides future mitigation planning, and maintenance of existing plan (County of Riverside Emergency Management Department 2018).

County of Riverside Emergency Operations Plan Template

The County of Riverside Emergency Management Department develops the Emergency Operations Plan Template. The Emergency Operations Plan Template is for use by the local entities within Riverside County to coordinate localized emergencies as well as catastrophic disasters. As amended by individual local entities, the Emergency Operations Plan establishes the emergency organization, assigns tasks, and specifies policies and general procedures during both response and recovery (County of Riverside 2017). The RCFD serves the March JPA for fire protection services. As such, RCFD utilizes the County of Riverside's Emergency Operations Plan for the March JPA planning area.

4.18.3 Project Design Features

PDF-FIRE-1 The Project shall comply with Chapter 33 of the California Fire Code, which prescribes minimum safeguards for construction, alteration and demolition operations to provide reasonable safety to life and property from fire during construction operations within a fire hazard severity zone.

PDF-FIRE-2 The Project's Fire Protection Plan (FPP) evaluates and identifies the potential fire risk associated with the Project's land uses. The Project shall implement the FPP's recommendations for water supply, fuel modification and defensible space, access, building ignition and fire resistance, and fire protection systems, among other pertinent fire protection criteria, which complies with or exceeds existing code requirements for building in a fire hazard severity zone. The Project shall also comply with the fire safety requirements and standards of the Riverside County Fire Department along with Project-specific measures based on the Project site, its intended use, and its fire environment, as defined and memorialized in the FPP.

As described in the Project's FPP and graphically represented in Figure 6 of Appendix Q, the Fuel Modification Zones would be as follows:

Zone A: Non-Combustible Zone

Zone A extends 5-feet from buildings and structures.

The ember-resistant zone is currently not required by law, but science has proven it to be the most important of all the defensible space zones. This zone includes the area under and around all attached decks and requires the most stringent wildfire fuel reduction. The ember-resistant zone is designed to keep fire or embers from igniting materials that can spread the fire to Project buildings. The following provides guidance for this zone, which may change based on the regulations developed by the Board of Forestry and Fire Protection.

- Use hardscape like gravel, pavers, concrete and other noncombustible mulch materials. No combustible bark or mulch.
- Remove all dead and dying weeds, grass, plants, shrubs, trees, branches and vegetative debris (leaves, needles, cones, bark, etc.); Check roofs, gutters, stairways, etc.
- Limit plants in this area to low growing, nonwoody, properly watered and maintained plants.
- Relocate firewood and lumber to Zone B.
- Replace combustible fencing, gates, and arbors attach to structures with noncombustible alternatives.
- Consider relocating garbage and recycling containers outside this zone.
- Consider relocating boats, RVs, vehicles and other combustible items outside this zone.

Zone B: Paved/Irrigated Zone

Zone B extends up to 100 feet from buildings and structures.

- Remove all dead plants, grass and weeds (vegetation).
- Remove dead or dry leaves and pine needles from landscaping, roof and rain gutters.
- Remove branches that hang over rooves

- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- Relocate wood piles to Zone B.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks, balconies, and stairs.
- Create a separation between trees, shrubs and items that could catch fire, such as wood piles.

Zone C: Thinning Zone

Zone C extends from Zone B up to 100 feet from buildings and structures

- Cut or mow annual grass down to a maximum height of 4 inches.
- Create horizontal space between shrubs and trees.
- Create vertical space between grass, shrubs and trees.
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.
- All exposed wood piles must have a minimum of 10 feet of clearance, down to bare mineral soil, in all directions.

Fire Access Road Zone

Extends a minimum of 10 feet from the edge of any public or private roadway that may be used as access for fire-fighting apparatus or resources adjacent to open space. Clear and remove flammable growth for a minimum of 10 feet on each side of the access roads. Additional clearance beyond 10 feet may be required upon inspection.

- Required clearance extends a minimum of 10 feet from the edge of any public or private roadway as well as an unobstructed vertical clearance of 20-feet.
- Landscaping and native plants shall be appropriately spaced and maintained.
- Trees found in Appendix E can be planted, if they are far enough from structures and Fire Department accesses, and do not overhang any structures or access at maturity.

Roadside fuel modification for the Project consists of maintaining ornamental landscapes, including trees, clear of dead and dying plant materials. Roadside fuel modification shall be maintained by the Project.

Undesirable Plants

Certain plants are considered to be undesirable in the landscape due to characteristics that make them highly flammable. These characteristics can be physical (structure promotes ignition or combustible) or chemical (volatile chemicals increase flammability or combustion characteristics). The plants included in the FMZ Undesirable Plan List (refer to Appendix E) are unacceptable from a fire safety standpoint and shall not be planted or allowed to establish opportunistically within the FMZs or landscape areas.

PDF-FIRE-3 March JPA's Landscape, Lighting and Maintenance District shall provide tenants of the West Campus Upper Plateau Specific Plan Area with a proactive educational component disclosing the potential wildfire risk and the FPP's requirements. These educational materials shall include

information on maintaining the landscape and structural components according to the appropriate standards and embracing a "Ready, Set, Go" stance on evacuation. All educational materials shall be reviewed and approved by the Riverside County Fire Department. The FPP was prepared for the Project in accordance with CFC Title 24, Chapter 49.

4.18.4 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to wildfire 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 wildfire would occur if the Project were located in or near State Responsibility Areas or lands classified as very high FHSZs and would:

a. Substantially impair an adopted emergency response plan or emergency evacuation plan.
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
c. 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.
d. 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.

Although the analysis provided in the Initial Study prepared for the Project (Appendix A) determined that the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan, since publication of the Initial Study and Notice of Preparation, the California Office of the Attorney General issued the 2022 AG Guidance outlining best practices for analyzing and mitigating wildfire impacts of development projects under CEQA. As such, for the purposes of this analysis, a significant impact would occur if the Project would:

FIRE-1: Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

FIRE-2: In or near a State Responsibility Area or lands classified as very high FHSZ, would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

FIRE-3: In or near a State Responsibility Area or lands classified as very high FHSZ, 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?

FIRE-4: In or near a State Responsibility Area or lands classified as very high FHSZ, 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?

4.18.5 Impacts Analysis

Threshold FIRE-1. ***Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?***

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

The Initial Study for the Project (Appendix A) determined the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. As discussed in the Initial Study, March JPA adopted a Disaster Preparedness and Recovery Plan within the Safety/Risk Management Element of the General Plan (March JPA 1999). This plan outlines the implementation programs needed to prevent risks to occupants and to minimize injury from an unavoidable disaster or emergency. As discussed in detail in Chapter 3 of this EIR, the Project proposes a Specific Plan with a planned buildout of the Specific Plan Area consisting of ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Project also includes a park and infrastructure improvements. The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical changes are anticipated as part of this action, the Conservation Easement would not have a substantial adverse effect on an emergency response or evacuation plan.

Any potential impacts created by the proposed Specific Plan Area would be less than significant with implementation of the Disaster Preparedness and Recovery Plan programs within the General Plan. Entrances to the Project site would be located along the north, south, and east sides of the Project. A north and south entrance to access the proposed Park would be accessed by a new extension of Barton Street to connect from Alessandro Boulevard to Barton Drive, which the Project would construct. The entrance to the east of the Specific Plan Area would be located along Cactus Avenue, approximately 1 roadway mile west of the I-215/Cactus Avenue on-/off-ramp. The Specific Plan Area would also have an additional access point from the north via Brown Street, which the Project would construct, to connect from Alessandro Boulevard to the new extension of Cactus Avenue.

An access driveway to the site would be provided on Cactus Avenue and Brown Street. According to the March JPA General Plan's Transportation Element, Cactus Avenue and Brown Street are classified as Major Arterial roadways, which provides access to I-215 to the east. Brown Street connects to Alessandro Boulevard. According to the March JPA General Plan's Transportation Element, Cactus Avenue and Brown Street are classified as Major Arterial roadways, which provide access to I-215 to the east. Brown Street connects to Alessandro Boulevard (Arterial Highway) to the north which then connects to I-215 to the east (March JPA 1999). A gated emergency vehicle access roadway would be incorporated into the Project to provide an emergency connection between Barton Street on the west and Cactus Avenue on the east. The proposed site plan for the Specific Plan Area will be reviewed and require approval by March JPA, the police department, and the fire department during plan review to ensure that emergency access would be provided at all times.

As discussed in Section 4.18.3, the 2022 AG Guidance outlines best practices for analyzing and mitigating wildfire impacts and evacuation analysis. The 2022 AG Guidance recommends analyzing a project's impact on evacuation and emergency access for projects located in a HFHSZ/VHFHSZ. The Specific Plan Area, which is not located in a HFHSZ/VHFHSZ, is considered an infill project that will be adjacent to a conserved open space dominated by flashy type fuels that would produce a low-intensity wildfire. The Specific Plan Area includes a defined FMZ or masonry walls where constricted space would not allow a full FMZ, providing a physical barrier between the Specific Plan

Area and the Conservation Easement. Further, the Specific Plan Area provides important road network improvements, including connections of existing dead-end roads: Cactus Avenue (east-west) with Barton Drive (north-south) through a gated emergency access road and connecting Brown Street to Cactus Avenue. These improvements would assist with Project evacuation as well as provide existing residents additional evacuation routes. Additionally:

- Evaluation of the capacity of roadways to accommodate project and community evacuation and simultaneous emergency access. The Project's traffic engineers have evaluated road conditions and the improved and enhanced circulation with new connections would provide for a superior condition than currently exists.
- Assessment of the timing for evacuation. The Project would enhance existing circulation in the area, providing new through road connections, improving circulation, and providing routes that could be used as alternative evacuation routes for existing development. These improvements would improve evacuation times for the Project and surrounding development.
- Identification of alternative plans for evacuation. Alternative plans for evacuation (e.g., shelter in place, partial evacuation vs mass evacuation, targeted evacuations) would be feasible due to the high ignition resistance level and the low risk of ignitions and corresponding low fire intensity anticipated.
- Evaluation of the project's impacts on existing evacuation plans. Existing evacuation plans do not exist or have not been made public information for the area. The Project would utilize primary evacuation routes that would be available to other evacuees, but with improved roadway capacities, new connections and better flexibility and options.
- Consideration of the adequacy of emergency access, including the project's proximity to existing fire services and the capacity of existing services. Emergency access is provided that is consistent with the Fire Code requirements (e.g., road widths and clearance). There are four fire stations within 5 miles of the Project site, the closest station to the Project has a travel time of 4 minutes and 23 seconds, with a total response time of 6 minutes and 23 seconds. This response time is considered to be adequate given the Project's fire safety features, including full NFPA 13 fire sprinklers.
- Traffic monitoring to quantify travel times under various likely scenarios. Traffic monitoring data was collected for traffic analysis; however, it was not completed for evacuation planning as the Specific Plan Area is not within a HFHSZ/VHFHSZ, and wildfire is not anticipated to require a mass evacuation of the Specific Plan Area or neighboring communities based on the lack of significant available vegetative fuels. Additionally, under a likely wildfire scenario, the Project's proposed circulation improvements would reduce evacuation times and provide alternate evacuation routes for existing development.

Based on the above analysis, and the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be **less than significant**; no mitigation is required.

Conservation Easement

The March JPA and developer propose to place the Conservation Easement under a conservation easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to impairing an adopted emergency response plan or emergency evacuation plan.

Threshold FIRE-2. *In or near a State Responsibility Area or lands classified as very high FHSZ, would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Currently, there is no established threshold to define allowable proximity to lands classified as Very High FHSZ; therefore, for the purposes of this analysis, lands within two miles of the Project site were considered. Flying embers are generally not expected to travel distances greater than 2 miles, depending on weather conditions and the type of fuel (i.e., vegetation, residential structures)[3]. The nearest mapped FHSZ, which is also the nearest Very High FHSZ, is located approximately 1.15 miles west of the Project's Conservation Easement and 1.45 miles west of the Specific Plan Area (CAL FIRE 2007). For purposes of this EIR analysis, the Project site would be considered near lands classified as Very High FHSZ.

Construction

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Upper Plateau Campus would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The proposed Project also includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multi-use sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. Infrastructure improvements associated within the proposed Project include installation of utility and roadway networks throughout the Development Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank.

Project construction 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. This could result in an exacerbation of wildfire risk and expose the temporary Project occupants, construction workers, to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire. Project-related construction activities would include demolition and removal of existing buildings and structures on the Project site and use of heavy machinery and other hot work during the construction of new buildings, structures, and other features of the proposed Project. Although the Project site is not within a designated FHSZ, it is within close proximity (i.e., less than 2 miles) to lands classified as such. Therefore, as a Project Design Feature (PDF), the Project would comply with March JPA, State and RCFD requirements for construction activities in hazardous fire areas, including fire safety practices, to reduce the possibility of fires during construction activities. As outlined in **PDF-FIRE-1**, although not required, the Project would comply with CFC Chapter 33 Fire Safety During Construction and Demolition designating fire safety measures to reduce the possibility of fires during construction activities. CFC Chapter 33 includes the following measures: fire watch/fire guards during hot works and heavy machinery activities (e.g., welding), spark arresters on all equipment, requiring fire access during construction, approved water supply, red flag period restrictions, required on-site fire prevention resources, and others. The Project would also comply with applicable portions of RCFD, Fire Prevention Standards and County Ordinances No. 460 and No. 787-9. Additionally, as outlined in **Mitigation Measure (MM) FIRE-1**, vegetation management requirements would be implemented at the start of and throughout all

[3] https://www.nwcg.gov/publications/pms437/crown-fire/spotting-fire-behavior

phases of construction, and combustible materials would not be brought on-site until site improvements (e.g., utilities, access roads, fire hydrants, fuel modification zones) have been implemented and approved by RCFD. Additionally, all new permanent powerlines would be undergrounded for fire safety purposes, all but eliminating the risk of ignitions via contact between transmission lines and tree canopies, other vegetation, etc. The pre-construction requirements outlined in **MM-FIRE-1** and safety practices outlined in **PDF-FIRE-1** would reduce the risk of wildfire ignition and spread on the Project site during construction activities. Vegetation management would also reduce the risk of wildfire spreading from within the active construction areas to on- and off-site fuel beds. Provided site improvements and vegetation management requirements are appropriately implemented and approved by RCFD, construction activities are not anticipated to exacerbate wildfire risk such that Project workers would be exposed to the uncontrolled spread of a wildfire or pollutant concentrations from a wildfire. Therefore, with implementation of **PDF-FIRE-1** and **MM-FIRE-1**, Specific Plan Area construction would not exacerbate wildfire risk or constitute a potentially dangerous fire hazard, and impacts related to Specific Plan Area construction would be **less than significant with mitigation incorporated**.

Operation

Existing potential ignition sources near the Project site include the existing roadways and vehicles, existing overhead power lines, off-site business park areas, off-site residential neighborhoods, and arson-related ignitions. Development of the Specific Plan Area would introduce new potential sources of ignition to the Project site, including increased human activity on the Project site and additional vehicles traveling on internal and external roads. Due to the Project's location near Very High FHSZ, as described in **PDF-FIRE-2**, the Project would design, construct, and maintain structures, roadways, and facilities in compliance with applicable local, regional, state, and federal requirements related to fire safety, emergency access, and evacuation, as well as building materials, setbacks, and defensible space requirements for development in fire hazard areas. **PDF-FIRE-2** mirrors local, state, and federal rules, regulations, and policies, which establish minimum standards for development strategies, building materials, and systems and fire prevention strategies for development in the wildland-urban interface and fire hazard areas to reduce the risk of wildfire damage and losses.

As detailed in **PDF-FIRE-2**, while not required since the Project site is not located within a designated FHSZ, a FPP was prepared for the Project in accordance with CFC Title 24, Chapter 49, and is included as Appendix Q. The FPP analyzes the wildland fire risk in the vicinity of the Project site and determined that wildfires may occur in wildland or naturally vegetated areas north/northeast of the Project site from large non-maintained fuel beds as well as non-maintained on-site fuels within the Conservation Easement. Further, as shown in Appendix B of Appendix Q and discussed in Section 4.18.1, Existing Conditions, thirty-nine (39) wildfires have burned within a 5-mile radius of the Project site, with the most recent fires in 2017 (Opera Fire and Blaine Fire) (CAL FIRE 2021). No recorded wildfires have burned onto the Project site (CAL FIRE 2021). As part of the FPP, fire behavior modeling was conducted (using BehavePlus software package) to document the type and intensity of fire that would be expected to occur from northwest, northeast, east, south, and southwest of the Project site. Pre- and post-Project site characteristics considered in fire behavior modeling inputs (i.e., topography, vegetation, and weather) and modeling results are further discussed below.

With regard to project density as recommended by the 2022 AG Guidance, the Specific Plan Area is considered a very dense development, converting the developed area to ignition resistant landscapes with no inclusion of unmaintained vegetation within the converted footprint. The nearest open space vegetation would be separated from the buildings by a 6-foot-tall masonry wall. The buildings are clustered and present one, defensible interface, unlike lower density development which incorporates fuels within and around buildings and multiple building interfaces.

Although new ignition sources would be introduced to the Project area, development of the Specific Plan Area would also result in the conversion of undeveloped land to ignition-resistant development and landscaping. As required by the FPP prepared for the Project (Appendix Q) and **PDF-FIRE-3**, March JPA's Landscape, Lighting and Maintenance District (LLMD) would provide the Campus Development tenants with a proactive educational component disclosing the potential wildfire risk and the FPP's requirements. These educational materials are required to include information on maintaining the landscape and structural components according to the appropriate standards and embracing a "Ready, Set, Go" stance on evacuation[4]. The "Ready, Set, Go!" concept is widely known and encouraged by the State of California and most fire agencies. Pre-planning for emergencies, including wildfire emergencies, focuses on being prepared, having a well-defined plan, minimizing potential for errors, maintaining the Specific Plan Area's fire protection systems, and implementing a conservative (evacuate as early as possible) approach to evacuation and Specific Plan Area activities during periods of fire weather extremes. RCFD would review and approve all wildfire educational material/programs before printing and distribution.

Additionally, as required by the Project's FPP and **MM-FIRE-2**, the permanent fuel modification zones for the Specific Plan Area would be established and maintained by the Applicant during construction, and by the Owner of each parcel or the LLMD once the Project is built out. The Owner or LLMD will be responsible for streetscape and vegetation management as well as ongoing maintenance of fire resistive building materials and fire sprinkler systems in perpetuity in compliance with the FPP and **MM-FIRE-2**. Additionally, as described in the FPP and **MM-FIRE-2,** the Owner or LLMD shall be responsible for ensuring long-term funding and ongoing compliance with all provisions of the FPP, including vegetation planting, fuel modification on the perimeter, and maintenance requirements on all common areas and roadsides. Maintaining wildfire risk awareness and fire protection measures through the Owner or LLMD would further lower the impact of the Project on surrounding areas by reducing the probability of ignition even occurring, raising wildfire awareness, and preventing spread off-site through the managed and maintained landscapes and perimeter managed fuel modification zones.

Slope and Topography

The Project site encompasses existing development and previously disturbed land. Site elevations range from 1,765 feet above mean sea level (amsl) in the central portion to 1,645 feet amsl in the northeast portion of the site. The Specific Plan Area would be graded level and slope would be 0%; whereas slopes in the adjacent Conservation Easement would remain the same as existing conditions, less than 5%. The topography of the Project site consists of low rolling hills with undulating topography. Topography and slope variations can influence surface winds, which impact wildfire behavior. Topographic features that may present a fire spread facilitator are the slope and canyon alignments, which may serve to funnel or channel winds, thus increasing their velocity and potential for influencing wildfire behavior. Once developed, the Specific Plan Area would be graded and developed with Business Park, Industrial, Mixed-Use, Park, and Open Space uses along with infrastructure improvements. Open space areas that would remain would include open space and landscaping improvements, including fuel modification zones (further discussed below).

With regard to location in landscape as recommended by the 2022 AG Guidance, the Specific Plan Area creates a flat pad on which the Project's structures and infrastructure are placed. Fuels in the Project area are not conducive of extreme fire intensity and terrain varies but does not include extreme steep slopes. The Project site has been comprehensively evaluated and modeling has confirmed even under the extreme weather conditions that have been recorded in the area, the provided defensible space and ignition resistant structures are appropriately

[4] https://www.readyforwildfire.org/

designed to minimize the potential for structure ignitions. Therefore, the location of the Project site is appropriate for the type of activities that are proposed and is not considered vulnerable to wildfire.

Prevailing Winds

The prevailing wind pattern is from the west (on-shore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the west–southwest (sea) and at night winds are from the northeast (land). The windiest part of the year lasts from November through June with average wind speeds of 6 mph. The reminder of the year has wind speeds averaging around 5.1 mph (Weather Spark 2022). The highest wind velocities are associated with downslope, canyon, and Santa Ana winds. However, the Project site is subject to periodic extreme fire weather conditions that occur throughout Riverside County, associated with drought conditions and Santa Ana winds. Wind gusts during these events can reach 74 mph or greater and can drive extreme fire behavior (Sosnowski 2021). The various slope and canyon alignments that exist in the Project Area may serve to funnel or channel winds, thus increasing wind velocities and creating the potential for influencing wildfire behavior.

Vegetation Management and Setbacks

The type of vegetative cover plays a significant role in affecting fire behavior. Further existing potential ignition sources currently on or near the Project site include vehicles traveling along major travel routes (i.e., I-215) and local roads, human activity in nearby business park areas, recreational areas and residential neighborhoods, arson-related activities, accidental ignitions, and existing overhead power lines that traverse the Project site (which would be removed and undergrounded as part of the proposed Project).

Although new ignition sources would be introduced to the area, development of the Project would also result in the conversion of undeveloped land to ignition-resistant development and landscaping. Post-development vegetation composition proximate to the Specific Plan Area is expected to be significantly different than current conditions.

The Project site is heavily vegetated with low-load native grasses and grass-shrub vegetation communities. Variations in vegetative cover type and species composition have a direct effect on fire behavior. For example, grasses produce lower intensity, higher spread rate fires, while California sagebrush scrub can produce higher heat intensity and higher flame lengths under strong, dry wind patterns, but does not typically ignite or spread as quickly as light, flashy grass fuels. When modeling fire behavior, the corresponding fuel models for each of these vegetation types are designed to capture these differences.

While development would introduce new potential ignition sources, the Specific Plan Area would be largely converted from readily ignitable fuels to structures and landscaped areas, consisting of ignition resistant building materials and an ignition resistant plant palette. The Project would be developed according to all applicable building codes and fire codes and be subject to the provisions in Section 4291 of the Public Resources Code. As described in **PDF-FIRE-2**, as a conservative approach to fire prevention and safety, the Project would also incorporate the more restrictive codes intended for development within a high or Very High FHSZ, which include provisions for fuel modification and defensible space.

While the Specific Plan would convert readily ignitable fuels to structures and maintained landscaped areas, it would be exposed to the naturally-vegetated Conservation Easement along the perimeter of the Project site as well as to small internal stretches of vegetated areas within open space. Fuel modification zones (FMZs) would be implemented in areas adjacent to open space, in accordance with the RCFD's Fire Code and the CFC. An FMZ is a

strip of land where combustible vegetation has been removed and/or modified and partially or totally replaced with more adequately spaced, drought-tolerant, fire resistant plants in order to provide a reasonable level of protection to structures from wildland fire. FMZs are designed to provide vegetation buffers that gradually reduce fire intensity and flame lengths from advancing fire by strategically placing thinning zones and irrigated zones adjacent to each other on the perimeter of the wildland–urban interface and exposed structures. An important dual-function of the fuel modification zone is to reduce the ability of a fire igniting in developed areas and spreading into wildlands (Braziunas et al. 2021). Because of the buffer between developed areas and natural areas created by the fuel modification zones, fires that ignite in a developed area do not easily spread through a fuel modification zone into wildlands. A typical fuel modification zone consists of at least 100 feet of vegetation thinning or removal, measured in a horizontal plane from the exterior façade of all structures toward the undeveloped areas. A typical landscape/fuel modification installation per the County's Fire Code consists of a 30-foot-wide irrigated zone (similar to Zone B in the FPP included in Appendix Q) and a 70-foot-wide thinning zone (similar to Zone C in the FPP included in Appendix Q) for a total of 100 feet in width on the periphery of a developed parcel, beginning at the structure.

The FPP for the West Campus Upper Plateau Project (Appendix Q) provides proposed fuel modification zones for the Project that exceed the requirements outlined above. The Project's FPP and all subsequent site plans for future structures, which would conform with the requirements outlined in the Project's FPP, would be reviewed and approved by the RCFD for consistency with defensible space and fire safety guidelines. All structures proposed adjacent to the wildlands/urban interface would be required to submit a detailed Fuel Management Plan to be reviewed and approved by the RCFD prior to approval by the March JPA. The Project's FPP (Appendix Q) includes specific fuel management requirements for the proposed industrial Buildings B and C. Building B would not require an FMZ, as it is more than 100-feet from the open space and would be surrounded by 453 feet of paved surface and irrigated landscape. Building C is adjacent to the Conservation Easement; however, the paved surface and irrigated landscape proposed around the structure would function as FMZ equivalent.

As described in **MM-FIRE-2**, for the Project site, the FMZ widths between the naturally vegetated open space areas and on-site structures are proposed to be 100 feet, approximately 5 times the modeled flame lengths based on the fuel type represented adjacent to the Specific Plan Area. When 100 feet of clearance cannot be provided because the property line is closer than 100 feet, the Project FPP requires equivalent protection through a combination of FMZ and additional construction ignition resistance enhancements. The proposed fuel modification plan for the Project is shown in Figure 6 of Appendix Q, including a minimum 5-foot-wide non-combustible zone (Zone A), up to a 95-foot wide irrigated zone (Zone B), and up to a 70-foot wide thinning zone (Zone C). FMZs would be constructed from the structure outwards towards the Conservation Easement. Additionally, all fire access roads or any public or private roadway within the Specific Plan Area will have 20-feet of horizontal clearance on each side and 20-feet of vertical clearance. As required by the Project's FPP (Appendix Q) and **MM-FIRE-2**, vegetation management within fuel modification zones would be the responsibility of the Project's LLMD and would occur on an annual basis (by May/June each year) and more often as needed for fire safety, as determined by RCFD.

In the event the full 100-foot FMZ is not achievable because property lines lie closer than 100 feet, the Project's FPP and **MM-FIRE-3** require all subsequent site plans to identify and implement alternative materials and methods to achieve the equivalent of the 100-foot FMZ. As detailed in Appendix Q, these alternative materials and methods include:

1. A minimum 6-foot heat deflecting wall will be constructed of concrete masonry units (CMUs) between on-site structures and unmaintained open space.
2. Windows will be upgraded on the preserved vegetation side of the structures subject to FMZ less than 100 feet to include dual pane, both panes tempered, exceeding the code requirement.

3. Minimum 1-hour fire rated exterior walls and doors (including roll up doors); one layer of 5/8-inch type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing, from the foundation to the roof, for all exterior walls of each building facing the open space areas.
4. The vents will be ember-resistant for (recommend BrandGuard, O'Hagin, or similar vents). All vents used for this Project will be approved by RCFD.
5. Project applicant required to request annual inspection from RCFD or hire a third-party inspector to evaluate FMZ areas site wide to confirm they meet the requirements of this FPP and RCFD.

In an effort to reduce impacts to the open space and the Conservation Easement to the south and southeast from structures proposed in the southern lot and southeastern lot in the Specific Plan Area, the Project's FPP (Appendix Q) and **MM-FIRE-3** require the alternative materials and methods described above to achieve the equivalent FMZ. The fire behavior modeling conducted for the Project determined that the FMZ and FMZ equivalent would reduce flame lengths and slow fire spread rates to a level that would be manageable by fire crews (the fire behavior modeling results are further discussed below and in Appendix Q).

Building Materials and Other Factors

FMZs are very important for setting back structures from adjacent unmaintained fuels, providing thinned and irrigated vegetation closest to structures, which will reduce risk associated with firebrands or embers as a principal ignition factor. Based on its location and ember potential, **PDF-FIRE-2** requires development within the Specific Plan Area to include the latest ignition and ember resistant construction materials and methods for roof assemblies, walls, vents, windows, and appendages, as detailed in the RCFD and County's Fire and Building Codes (e.g., Chapter 7A) and the Project-specific recommendations in the Project's FPP. Further, as described in **PDF-FIRE-2**, the Project would incorporate portions of the Riverside County Fire Code (Chapter 8.32), as amended, and adopted by reference the 2019 edition of the CFC, Chapter 7A of the 2019 CBC; the 2019 California Residential Code, Section 337; and 2018 Edition of the International Fire Code as adopted by the County.

There are two primary concerns for structure ignition: (1) radiant and/or convective heat and (2) burning embers (NFPA 2018; IBHS 2021). Embers have been a focus of building code updates for at least the last decade, and new structures in the Wildland Urban Interface (WUI) built to these codes have proven to be very ignition resistant. Likewise, radiant and convective heat impacts on structures have been minimized through the Chapter 7A exterior fire ratings for walls, windows and doors. Fuel modification areas separate wildland fuels from structures and can reduced the number of fuel-related structure losses (Syphard et al. 2014). As the WUI fire problem is a structure ignition problem, the best mitigation is to reduce the structure's likelihood of ignition (Zhou 2013). Structural characteristics play a large role in determining whether a structure burns (Gorte 2011). Structural hardening through ignition-resistant construction materials can minimize vulnerability to embers and the inclusion of required interior sprinklers can extinguishing interior fires, should embers succeed in entering a structure.

Incorporation of the latest structural ignition resistant features and methods minimizes the possibility that structures ignite from ember penetration. Each facet of a building's exterior construction and appendages is addressed within CBC Chapter 7A with a primary focus of requiring structures that can withstand heat, flame, and embers.

Fire Behavior Modeling

The location and direction of the various fire scenarios analyzed for the Project is presented in Figure 4 of Appendix Q, BehavePlus Fire Behavior Analysis for West Campus Upper Plateau Project. The results of the fire

behavior modeling scenarios are described below. Further details regarding modeling inputs and results can be found in Appendix C of Appendix Q.

Modeling Results for the West Campus Upper Plateau Project - Existing Conditions

The results of the wildfire behavior modeling for five different fire scenarios near the Project Area under existing conditions are presented in Table 4.18-2. Wildfire behavior on the Project site is expected to be primarily of low to moderate intensity throughout the non-maintained surface grasses and grass-shrub dominated fuels throughout the entire Project site. Worst-case fire behavior is expected in untreated, surface grass-/grass-shrubs vegetation under peak weather conditions (represented by Fall Weather, Scenario 3). The fire is anticipated to be a wind-driven fire from the east/southeast during the fall. Under such conditions, expected surface flame lengths reach approximately 18 feet with wind speeds of 50+ mph. Under this scenario, fireline intensities reach 3,037 BTU/feet/second with moderate spread rates of 6.2 mph and could have a spotting distance up to 1.5 miles away.

Table 4.18-2. BehavePlus Modeling Results – Existing Conditions

Fire Scenario	Flame Length (feet)	Spread Rate (mph)	Fireline Intensity (Btu/ft./sec)	Spot Fire (Miles) [1]
Scenario 1: 5% slope, Summer, On-shore Winds from the northwest (Current conditions)				
Sparse load grasses (Gr1)	2.1	0.2	28	0.1
Low load grasses (Gr2)	5.8	0.7	258	0.2
Low load grass-shrubs (Gs1)	3.9	0.3	111	0.2
Scenario 2: 7% slope, Fall, Offshore, Extreme Fall Winds from the northeast (Current conditions)				
Sparse load grasses (Gr1)	4.0 (4.0)	0.7 (0.7)	115 (115)	0.1 (0.5)
Low load grasses (Gr2)	10.1 (18.0)	1.8 (6.2)	873 (3,037)	0.4 (1.3)
Low load grass-shrubs (Gs1)	7.0 (14.0)	0.7 (3.0)	385 (1,763)	0.3 (1.1)
Scenario 3: 5% slope, Fall, Offshore, Extreme Fall Winds from the east (Current conditions)				
Sparse load grasses (Gr1)	4.0 (4.0)	0.7 (0.7)	115 (115)	0.2 (0.5)
Low load grasses (Gr2)	10.1 (18.0)	1.8 (6.2)	870 (3,037)	0.4 (1.3)
Low load grass-shrubs (Gs1)	6.9 (14.0)	0.7 (3.0)	384 (1,763)	0.3 (1.1)
Scenario 4: 6% slope, Fall, Offshore, Extreme Fall Winds from the south (Current conditions)				
Sparse load grasses (Gr1)	4.0 (4.0)	0.7 (0.7)	115 (115)	0.2 (0.5)
Low load grasses (Gr2)	10.1 (18.0)	1.8 (6.2)	867 (3,037)	0.4 (1.3)
Low load grass-shrubs (Gs1)	7.0 (14.0)	0.6 (3.0)	383 (1,763)	0.3 (1.1)
Scenario 5: 4% slope, Summer, Onshore Winds from the southwest (Current conditions)				
Sparse load grasses (Gr1)	2.1	0.2	28	0.1
Low load grasses (Gr2)	6.3	0.9	311	0.3

Table 4.18-2. BehavePlus Modeling Results – Existing Conditions

Fire Scenario	Flame Length (feet)	Spread Rate (mph)	Fireline Intensity (Btu/ft./sec)	Spot Fire (Miles) [1]
Low load grass-shrubs (Gs1)	4.3	0.3	133	0.2

Note:
[1] Spotting distance from a wind driven surface fire; it should be noted that the wind mph in parenthesis represent peak gusts of 50 mph.

Modeling Results for the West Campus Upper Plateau Project - Post-Development

Based on the BehavePlus analysis, post development fire behavior considers the establishment of irrigated vegetation that are acceptable with the RCFD (Zone A and Zone B – FM8), as well in a thinned area of the existing grasses and shrubs (Zone C – Gr2) under peak weather conditions (represented by Fall Weather, Scenario 3). Under such conditions, expected surface flame length is expected to be significantly lower in the areas where fuel modification occurs, with flames lengths reaching approximately 18 feet with wind speeds of 50+ mph. Under this scenario, fireline intensities reach 3,037 BTU/feet/second with relatively slow spread rates of 6.2 mph and could have a spotting distance up to 1.3 miles away. Therefore, the 100-foot Fuel Modification Zone (FMZ) proposed for the West Campus Upper Plateau Project is approximately 5-times the flame length of the worst-case fire scenario under peak weather conditions and would provide adequate defensible space to augment a wildfire approaching the perimeter of the Specific Plan Area.

Table 4.18-3. Fire Behavior Modeling Results for Post-Project Conditions

Fire Scenario	Flame Length (feet)	Spread Rate (mph)	Fireline Intensity (Btu/ft./sec)	Spot Fire (Miles)[1]
Scenario 1: 5% slope, Summer, On-shore Winds from the northwest (Current conditions)				
FMZ Zone A and B (FM8)	1.3	0.0	9	0.1
FMZ Zone C (Gr2)	5.8	0.7	258	0.2
Scenario 2: 7% slope, Fall, Offshore, Extreme Fall Winds from the northeast (Current conditions)				
FMZ Zone A and B (FM8)	2.0 (3.0)	0.1 (0.2)	25 (62)	0.1 (0.4)
FMZ Zone C (Gr2)	10.1 (18.0)	1.8 (6.2)	873 (3,037)	0.4 (1.3)
Scenario 3: 5% slope, Fall, Offshore, Extreme Fall Winds from the east (Current conditions)				
FMZ Zone A and B (FM8)	2.0 (3.0)	0.1 (0.2)	25 (62)	0.1 (0.4)
FMZ Zone C (Gr2)	10.1 (18.0)	1.8 (6.2)	870 (3,037)	0.4 (1.3)
Scenario 4: 6% slope, Fall, Offshore, Extreme Fall Winds from the south (Current conditions)				
FMZ Zone A and B (FM8)	2.0 (3.0)	0.1 (0.2)	25 (62)	0.1 (0.4)
FMZ Zone C (Gr2)	10.1 (18.0)	1.8 (6.2)	867 (3,037)	0.4 (1.3)
Scenario 5: 4% slope, Summer, Onshore Winds from the southwest (Current conditions)				
FMZ Zone A and B (FM8)	1.4	0.0	11	0.1
FMZ Zone C (Gr2)	6.3	0.9	311	0.3

Note:
[1] Spotting distance from a wind driven surface fire; it should be noted that the wind mph in parenthesis represent peak gusts of 50 mph.

Once the Specific Plan Area is developed, the fire spread patterns on the Project site would be altered, since the Project would result in substantial fuel breaks, significantly interrupting the continuous fuels across the Project site. The proposed 100-foot fuel modification zone widths would be approximately five times as wide as the longest calculated directly adjacent flame lengths during offshore wind conditions, and approximately sixteen times wider than the calculated flame lengths for a fire during onshore wind conditions. Thus, projected flame lengths would be reduced to levels that would be manageable by firefighting resources. Additionally, per **PDF-FIRE-2**, the Project would be required to comply with all provisions in the Riverside County Code and March JPA Development Code regulating development in a High FHSZ. These include requirements such as ignition-resistant building materials and systems, implementation and ongoing maintenance of fuel modification zones, fire flow and fire hydrant requirements, and road width and length restrictions. With regard to water supply and infrastructure as recommended by the 2022 AG Guidance, Western Municipal Water District has confirmed that internal waterlines will supply sufficient fire flows and pressure to meet the demands for required on-site fire hydrants and interior fire sprinkler systems for all structures. With conversion of the undeveloped landscape to ignition-resistant development and landscaping, wildfires may still encroach upon and drop embers on the Project site but would not be expected to burn through the Project site due to the lack of available fuels and the typical ember decay rate. Further, in the event of a fire starting on the Specific Plan Area, the fire would not be anticipated to result in a wildfire that would spread to off-site wildlands due to the buffer created by the proposed fuel modification zones.

In reviewing the wildfire risk reduction measures recommended by the 2022 AG Guidance:

- Increasing residential density and consolidated project design, relying on higher density infill developments "as much as possible". The Project is high density and extends existing and ongoing development along the I-215 corridor.
- Avoiding and minimizing low-density development patterns or "leapfrog-type" developments with undeveloped wildland between developed areas. The Project is located in a highly developed area, is infill, and develops land at the wildland urban interface edge, without creating a leapfrog development.
- Decreasing a project's "edge" or wildland interface area and creating buffer zones and defensible space measures within and adjacent to the project. The Project minimizes edge by creating a clustered design and provides FMZ and specific alternative materials and methods to reduce the potential for wildfire encroachment.
- Siting projects to maximize the role of low-flammability landscape features and limiting development along steep slopes and amidst rugged terrain. The Project is located within an area that does not include significant topography or fuels.
- Undergrounding power lines. The Project's power lines will be undergrounded, eliminating the potential for electrical transmission line-caused fires on the site.
- Upgrading building materials and installation techniques beyond applicable building code requirements to increase a structure's resistance to heat, flames and embers (i.e. "fire hardening"), and requiring fire-hardened communication facilities (including internet) to the project site. The Project is consistent with this recommendation given the type of buildings (non-combustible materials) and their ignition resistance. Communication facilities will be provided via underground or protected above ground conduits.
- Requiring on-site water supply and/or storage to augment ordinary supplies that may be lost during a wildfire. The Project is consistent with this recommendation and benefits from a new water tank that will be installed and will be used to serve the Project's water demand. The Project will be consistent County Fire Code Section 8.32.050 and California Fire Code Section 903.2 for fire flow and fire hydrant requirements within a HFHSZ. These internal waterlines will also supply sufficient fire flows and pressure to meet the

demands for required **on-site** fire hydrants and interior fire sprinkler systems for all structures. Water supply must meet a 2-hour fire flow requirement of 2,500 gpm, which must be over and above the daily maximum water requirements for this development. Water utilities will be connected prior to any construction.

- Parking limitations to ensure access roads are not clogged with parked vehicles. Unlike a residential development that may have challenges providing adequate parking, the Project is a business center that has parking requirements based on the anticipated on-site population and building square footage, as detailed in the Specific Plan. Parking will not be an issue as fire apparatus access roads are not obstructed by designated parking areas and where parking is prohibited, signage and/or curb marking will be provided and illegally parked vehicles will be towed.
- Placement of development close to adequate emergency services, existing or planned ingress/egress, and designated evacuation routes. There are four fire stations within 5 miles of the Project site, the closest station to the Project has a travel time of 4 minutes and 23 seconds, with a total response time of 6 minutes and 23 seconds. This response time is considered to be adequate given the Project's fire safety features, including full NFPA 13 fire sprinklers.

The Project has the potential to be exposed to wildfires due to existing slopes, prevailing winds, and other factors that are conducive to the spread of a wildfire. However, the Specific Plan Area would result in the conversion of readily ignitable fuels to irrigated/thinned landscaping and development. With incorporation of **PDF-FIRE-2**, the proposed structures for the Project would be built using ignition-resistant materials pursuant to then-current Fire and Building Codes (focusing on structure ignition resistance from flame impingement and flying embers in areas designated as high fire hazard areas). This would be complemented by an improved water availability, capacity, and delivery system; Project area firefighting resources; fire department access throughout the developed areas; monitored defensible space/fuel modification; interior, automatic fire sprinkler systems in all structures; and other components that would provide properly equipped and maintained structures with a high level of fire ignition resistance. With adherence to the Fire Code, regulatory requirements, **PDF-FIRE-1** through **PDF-FIRE-3,** and **MM-FIRE-1** through **MM-FIRE-3,** the Project would not be anticipated to facilitate wildfire spread or exacerbate wildfire risk, as demonstrated by the fire behavior modeling analysis presented above and in the Project's FPP (Appendix Q).

Therefore, because the Project would not exacerbate wildfire risk causing Project occupants increased risk of exposure to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and because the Project would not constitute a potentially dangerous fire hazard, impacts related to Project operation would be **less than significant with mitigation**.

Conservation Easement

The March JPA and developer propose to place the Conservation Easement under a conservation easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect due to exacerbating wildfire risks and exposing Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Threshold FIRE-3. *In or near a State Responsibility Area or lands classified as very high FHSZ, 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?*

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Construction

A system of roads, fuel modification zones, and service utilities would be installed as part of the Specific Plan Area construction. As required in **PDF-FIRE-1**, the Project would comply with CFC Chapter 33 Fire Safety During Construction and Demolition designating fire safety measures to reduce the possibility of fires during construction activities. CFC Chapter 33 includes the following measures: fire watch/fire guards during hot works and heavy machinery activities (e.g., welding), spark arresters on all equipment, requiring fire access during construction, water supply, red flag period restrictions, required on-site fire prevention resources, and others. Additionally, **MM-FIRE-1** requires that improvements to the Project site, including utilities, access roads, and fuel modification zones, be completed prior to bringing combustibles on the Project site. The Project would also comply with RCFD requirements for construction activities in hazardous fire areas, per **PDF-FIRE-1**. Additionally, vegetation management requirements pursuant to RCFD would be implemented at the start of construction and throughout all construction phases. Vegetation management would be performed on all building locations prior to the start of work and prior to any import of combustible construction materials. Adequate fuel breaks would be created around all grading, site work, and other construction activities in areas where there is flammable vegetation. These features would require approval by the RCFD prior to combustibles being brought on the Project site. Implementation of the regulatory standards set forth in the FPP (Appendix Q) and required by **PDF-FIRE-1** would reduce the risk of wildfire ignition and spread on the Project site during construction activities to **less than significant.**

Operations

Fuel Modification Zones

An important component of a fire protection system for the Specific Plan Area is the provision of ignition resistant landscapes and modified vegetation buffers. FMZs are designed to provide vegetation buffers that gradually reduce fire intensity and flame lengths from advancing fire by strategically placing thinning zones, restricted vegetation zones, and irrigated zones adjacent to each other on the perimeter of the Wildland Urban Interface exposed structures. FMZ requirements for the Project are described in the Project's FPP (Appendix Q) and **MM-FIRE-3**.

The Specific Plan Area would be exposed to open space areas within the adjacent Conservation Easement that surrounds the Specific Plan Area on all sides, as well as the Open Space around the perimeter of the Specific Plan Area. As previously discussed, the Project site is not located in a FHSZ; however, given its location proximate to areas classified as Very High FHSZ (within 2 miles), a FPP was prepared for the Project in accordance with CFC Title 24, Chapter 49, and is included as Appendix Q. In accordance with CFC, the FPP would be submitted for approval to the RCFD and would include the vegetation management activities described below. As part of the FPP prepared for the Project, specific FMZ requirements are detailed for Buildings B and C proposed within the Specific Plan Area. As shown in Figure 6 of Appendix Q, Building C will achieve 100-feet of FMZ equivalent with paved surface and irrigated landscape east of the structure, where it is exposed to the Conservation Easement. FMZ for Building B is not required as it is not adjacent to open space. Future Project site plans will be consistent with the Project FPP.

Fuel treatments can redistribute risk on a landscape and altering the interaction between fire, fuels, and weather (Cochrane et al. 2012). Fuel treatments can also result in a shadow effect on the untreated landscape by altering the probability and timing of burning and affect wildfire size (Cochrane et al. 2012). A typical landscape/fuel modification installation per the County's Fire Code, consists of a 30-foot-wide Zone A and a 70-foot-wide Zone B for a total of 100 feet in width. However, as described in the FPP (Appendix Q) and **MM-FIRE-3,** the Project will implement site-specific FMZs consisting of a 5-foot-wide non-combustible Zone A, a 25 to 95-foot-wide irrigated/paved Zone B and up to a 70-foot-wide thinning Zone C. The Project's FPP provides both conceptual fuel modification plan for the development area, as well as a specific fuel modification plan for Buildings B and C. All Fuel Modification Plans shall be reviewed and approved by the RCFD for consistency with defensible space and fire safety guidelines. As previously described in Threshold FIRE-2, as required by the FPP, the Project would include up to 100-feet of fuel modification between the natural open spaces along the perimeter of the Specific Plan Area and where structures are exposed to open space areas or achieve the equivalent through a combination of FMZ and additional construction ignition resistance enhancements. Figure 6 in Appendix Q illustrates the FMZ Plan proposed for the Project site, including specific FMZ for Buildings B and C. Zone A is an ember-resistant zone that is currently not required by law, but science has proven it to be the most important of all the defensible space zones and requires the most stringent wildfire fuel reduction (CAL FIRE 2022). Zone B limits vegetation to green lawns, ground covers, and adequately spaced shrubs and trees and will be irrigated to maintain healthy vegetation with high live fuel moisture and greater fire resistance. Furthermore, plants in Zone B shall be inherently highly fire-resistant and spaced appropriately. The low plant density, irrigated zone provides a significant buffer between a structure or other landscape and native vegetation. This type of green barrier can have the same benefit of buffering preserved open space areas from accidental ignitions within communities while also have positive ecological impacts (Wang et al. 2021). Further, it is also the case that structures may achieve a Zone B equivalent, where immediately surrounding the structure is 100 feet or more of paved surface, as in the case with Building C (refer to Figure 6 of Appendix Q). Zone C is a thinning zone that would reduce fuels by 50%. Additionally, the fire access road zone, which extends a minimum of 10 feet from the edge of any public or private roadway that may be used as access for fire-fighting apparatus or resources adjacent to open space, shall be clear of all flammable growth for a minimum of 10 feet on each side of the access roads and have a minimum of vertical clearance of 20-feet as well.

As required by the RCFD, the FPP shall be approved by the RCFD for consistency with defensible space and fire safety guidelines. Vegetation management within fuel modification zones would be the responsibility of the Project's LLMD and would occur on an annual basis (by May 1st of each year) and more often, as needed, for fire safety, as determined by the RCFD. Consequently, the associated vegetation management activities would not exacerbate fire risk as fuel modification and other vegetation management activities are implemented and enforced according to RCFD and state requirements. The proposed vegetation management activities would reduce the fire risk by thinning or removing combustible vegetation and implementing a landscape plan with more adequately spaced, drought-tolerant, low-fuel-volume plants in order to provide a reasonable level of protection to structures from wildland fire and provide reasonable protection of wildland areas from structures.

Road Width and Circulation

The Project would involve the extension and improvement of the existing roadways and installation of an interior circulation network. Access to the Specific Plan Area would be provided from the east via Cactus Avenue, which would be extended to the west from its current western terminus to the Specific Plan Area. The Park would be accessed from the north and south by extending Barton Street to connect from Alessandro Boulevard in the north to Grove Community Drive in the south. Access to the Campus Development from the north would be via Brown Street, which would be extended south to connect from Alessandro Boulevard to the new extension of Cactus Avenue. Truck routes are proposed along Cactus Avenue to I-215, as well as along Linebacker Drive, Arclight Drive,

Airman Drive, and Bunker Hill Drive (Figure 3-54, Proposed Truck Routes). Trucks would be prohibited along the Barton Street extension. The Project would provide an emergency vehicle access only roadway, with gated access, to provide an emergency connection between Barton Street and Cactus Avenue. Trucks would also be prohibited from turning left on Brown Avenue to access Alessandro Boulevard.

The presence of vehicles and human activity along newly installed roads would introduce new potential ignition sources to the Specific Plan Area. As required under the Riverside County Fire Code (Section 8.32.040), fire engine apparatus roads would be maintained with a minimum 24-foot-wide roadway, exclusive of shoulders, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm). The interior access roads will be designed to accommodate a minimum of a 75,000-pound (lb.) fire apparatus load. Adherence to these regulatory requirements would reduce the risk of fire ignition along roadways and ensure ease of accessibility for ingress and egress of fire apparatus.

Utilities

As part of the Project, utility service lines, including those for water, wastewater, stormwater drainage, electrical, and natural gas, would be extended from their current locations to the Project's Specific Plan Area, as further discussed in Section 4.17, Utilities and Services Systems, of this EIR. All existing power poles would be removed, and new powerlines would be installed underground for fire safety purposes and to reduce fire risk associated with powerline ignition. In addition, if temporary construction powerlines are installed, this would only be done so in allowed areas that have been cleared of combustible vegetation.

The water purveyor for the Project is the Western Municipal Water District (WMWD) for potable and fire flow needs. The Project would construct infrastructure improvements to the existing water delivery system with adequate water reserve. Water utilities will be connected prior to any construction. Internal waterlines will also supply sufficient fire flows and pressure to meet the demands for required on-site fire hydrants and interior fire sprinkler systems for all structures. The Project will be consistent County Fire Code Section 8.32.050 and CFC Section 903.2 for fire flow and fire hydrant requirements within a HFHSZ. These internal waterlines will also supply sufficient fire flows and pressure to meet the demands for required on-site fire hydrants and interior fire sprinkler systems for all structures. Water supply will meet a 2-hour fire flow requirement of 2,500 gpm, which is over and above the daily maximum water requirements for this development. Water utilities will be connected prior to any construction.

The Project would be responsible for long term funding and maintenance of internal roads and fire protection systems, including fire sprinklers and private fire hydrants. Per **MM-FIRE-1**, all underground utilities, hydrants, water mains, curbs, gutters, and sidewalks would be installed, and the drive surface would be approved prior to combustibles being brought on site. As such, the installation and maintenance of utilities in accordance with regulatory requirements in conjunction with **MM-FIRE-1** would not exacerbate wildfire risk.

Fuel modification zones and other vegetation management activities that would occur prior to the start of construction and throughout the life of the Project are designed to provide vegetation buffers that gradually reduce fire intensity and flame lengths from an advancing fire. FMZs that are strategically designed and placement of fuel treatments can also facilitate fire suppression within a landscape (Braziunas et al. 2021). Reducing WUI exposure, through the implementation of defensible space practices, can address a wide range of highly valued resources including critical habitat, vegetation conditions, and watershed health (Scott et al. 2016). By reducing the potential for wildfire in open space areas, there is a corresponding reduction in potential negative impacts on existing communities that are situated within or at the edge of the greater open space/fuel bed. Consequently, new infrastructure would not exacerbate fire risk because fuel modification zones and other vegetation management

activities would be implemented and enforced according to RCFD requirements. The proposed fuel modification zones and other vegetation management activities would reduce the fire risk by thinning or removing combustible vegetation, and implementing a landscape plan with more adequately spaced, drought-tolerant, low-fuel-volume plants to provide a reasonable level of protection to structures from wildland fire. Installation of Project roads, service utilities, fuel modification zones, drainage and water quality improvements, and other associated infrastructure would not exacerbate wildfire risks because the appropriate fire prevention, access, and vegetation management activities, as outlined throughout Appendix Q, would be implemented.

Given that the activities involved with installation or maintenance of associated infrastructure would require ground disturbance and the use of heavy machinery associated with trenching, grading, site work, and other construction and maintenance activities, the installation of related infrastructure could potentially result in temporary or ongoing impacts to the environment. However, the installation and maintenance of roads, fuel modification zones, service utilities, and drainage and water quality improvements are part of the Project analyzed herein. As such, any potential temporary or ongoing environmental impacts related to these components of the Project were already accounted for and have been analyzed in this EIR as part of the impact assessment conducted for the entirety of the Project. Additionally, the Project would be required to comply with all regulatory requirements and mitigation measures outlined within this EIR for the purposes of mitigating impacts associated with trenching, grading, site work, and the use of heavy machinery. No adverse physical effects beyond those already disclosed in this EIR would occur as a result of implementation of the Project's associated infrastructure.

The Project's impacts related to exacerbating wildfire risk due to the installation of associated infrastructure would be appropriately mitigated with implementation of **PDF-FIRE-1, MM-FIRE-1**, **MM-FIRE-3** and adherence to all regulatory requirements and fire safety practices outlined in Appendix Q. Therefore, the installation and maintenance of associated infrastructure would not exacerbate wildfire risk or result in impacts to the environment beyond those already disclosed in this EIR, and impacts would be **less than significant with mitigation incorporated**.

Conservation Easement

The March JPA and developer propose to place the Conservation Easement under a conservation easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Threshold FIRE-4. ***In or near a State Responsibility Area or lands classified as very high FHSZ, 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?***

Specific Plan Area (Campus Development, Park, and Infrastructure Improvements)

Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up-slope and slower spread down-slope. Terrain that forms a funneling effect, such as chimneys, chutes, or saddles on the landscape can result in especially intense fire behavior. Conversely, flat terrain tends to have little effect on fire spread, resulting in fires that are driven by vegetation and wind. Vegetation plays a vital role in maintaining existing drainage patterns and the stability of soils. Plant roots stabilize the soil, and leaves, stems, and branches intercept and slow water, allowing it to more effectively percolate into the soil. Removal of surface vegetation reduces the ability of the soil surface to absorb rainwater and can allow for increased runoff that may include large

amounts of debris and mud flows. If hydrophobic conditions exist post-fire, the rate of surface water runoff is increased since water percolation into the soil is reduced (Moench and Fusaro 2012). The potential for surface runoff and debris flows therefore increases significantly for areas recently burned by large wildfires (Moench and Fusaro 2012). As discussed within Section 4.6, Geology and Soils, the Specific Plan Area would be graded flat and would include 90% impervious surface. According to the FRAP database, there have been no fires that have burned on the Project site (CAL FIRE 2021).

After grading of the Specific Plan Area, there would be no slopes. In the absence of slopes, the Specific Plan Area would not expose people or structures to significant risk as a result of post-fire slope instability. Additionally, the structures on-site would incorporate the latest structural ignition resistant features and methods, which would minimize the possibility that structures ignite from ember penetration or fire would spread beyond on-site structures. Each facet of a building's exterior construction and appendages are addressed within CBC Chapter 7A with a primary focus of requiring structures that can withstand heat, flame, and embers, which would reduce the overall fire-risk of the Specific Plan Area. Further, there have been no fires that have burned across the Project site.

As detailed in Section 4.9, Hydrology and Water Quality, runoff from rough graded lots would be diverted into interim desilting basins, pending future development of each lot. Runoff from proposed roadways would be routed to detention tanks, located within the landscape easements adjacent to the right-of-way. These tanks would be sized to hold the respective 100-year storm volumes, which would be released over 48 hours. An estimated conservative volume of 6,000 cubic feet/acre was used to meet this criteria. All detention tanks would include 2-inch-diameter drain lines, leading to a 6-inch-diameter to 12-inch-diameter storm drain line, and then to proposed modular wetland biotreatment units. The wetland biotreatment units would treat the water quality Design Capture Volume and the 2-year, 24-hour storm volume. The 2-year, 24-hour storm volume would be detained and discharged at existing rates to the existing drainage system. In cases where excess volume from the Project site cannot be infiltrated or captured and reused on site, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow (Appendix K-1; Appendix K-2). Therefore, excess flows would bypass the detention/treatment system at the reverse parkway drains, via a bypass system, and would continue down the roadway gutter to larger flow catch basins on the streets.

As analyzed in Appendix K, for Building B, the total proposed flow rate from the existing conditions prior to reaching the detention system. Hydraflow Storm Sewers Software used this hydrograph information to generate peak discharge rates for the proposed storm drain system utilizing the proposed detention system. For the 2-year 24-hour storm, utilizing a total volume of 213,852 cf, the proposed flow rate after the detention systems dropped to 1.261 cfs which is lower than the existing flow of 1.279 cfs. For the 100-year 24-hour storm, utilizing a total volume of 296,351 cf, the proposed flow rate after the detention systems dropped to 24.688 cfs which is lower than the existing flow of 24.721 cfs.

As analyzed in Appendix K, for Building C, the total proposed flow rate increased from the existing conditions prior to reaching the detention system. Hydraflow Storm Sewers Software used this hydrograph information to generate peak discharge rates for the proposed storm drain system utilizing the proposed detention system. For the 2-year 24-hour storm, utilizing a total volume of 99,095 cf, the proposed flow rate after the detention systems dropped to 0.597 cfs which is lower than the existing flow of 0.598 cfs. For the 100-year 24-hour storm, utilizing a total volume of 124,190 cf, the proposed flow rate after the detention systems dropped to 11.590 cfs which is lower than the existing flow of 11.604 cfs.

With incorporation of these stormwater control features into the Project design, increased impervious surfaces resulting from Project development would not result in increased runoff rates and associated off-site erosive scour

and sedimentation of downstream water bodies. However, the Preliminary Hydrology Study for Meridian Park Upper Plateau document (Appendix K-1) addresses potential hydrologic impacts of the Specific Plan Area as a whole (i.e., primarily the roadways) and Appendix K address impacts from Buildings B and C but does not address future individual lot development. **MM-HYD-3** requires lot-specific Hydrology/Drainage Reports demonstrating that stormwater runoff flow volume or flow rate, associated with specific lot development, would be less than or equal to existing conditions to prevent on- and off-site runoff and flooding. With the implementation of **MM-HYD-3**, impacts related to run-off and drainage would be **less than significant with mitigation incorporated**.

Conservation Easement

The March JPA and developer propose to place the Conservation Easement under a conservation easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical alteration to the Conservation Easement is anticipated, there would be **no impact** with respect to changes in run-off, post-fire slope instability or drainage changes.

4.18.6 Mitigation Measures

MM-FIRE-1 **Pre-Construction Requirements**. The grading and building permits shall require fuel modification to be implemented and approved by the Riverside County Fire Department (RCFD) prior to bringing combustible materials on-site. Adequate firebreaks at least 50 feet wide shall be created around all grading, site work, and other construction activities in areas where there is flammable vegetation. Existing flammable vegetation shall be reduced by 50% on vacant lots upon commencement of construction. Firebreaks and fuel modification shall be implemented in accordance with Appendix Q, West Campus Upper Plateau Fire Protection Plan, and approved by RCFD.

The Project shall comply with the following risk reducing vegetation management guidelines:

- All existing above ground power lines shall be removed and all new power lines shall be underground for fire safety. Temporary construction power lines may be approved by RCFD in areas that have been cleared of combustible vegetation.
- Erosion or ground (including slope) instability or water runoff due to vegetation removal, vegetation management, maintenance, landscaping or irrigation will be avoided.

MM-FIRE-2 **Vegetation Management**. Vegetation management (i.e., assessment of the fuel modification zone and fuel modification area's condition and removal of dead and dying and undesirable species; as well as thinning as necessary to maintain specified plant spacing and fuel densities) shall be completed annually by May 1 of each year, and more often as needed for fire safety, as determined by the Riverside County Fire Department. The vegetation management will be funded by the Project and shall be conducted by their contractor(s). The Project shall be responsible for all vegetation management throughout the development, in compliance with the Project Fire Protection Plan (FPP) that establishes requirements for all FMZs (i.e., Zone A, Zone B, Zone C and Roadside).

The permanent fuel maintenance zones required for the Project shall be maintained by the applicant during construction, and by the owner of each parcel or a Property Management Association, which will be responsible for vegetation management once the Specific Plan Area is built out. The Owner or Property Management Association will be responsible for vegetation management in perpetuity.

On-going/as-needed fuel modification maintenance during the interim period while the Project is built out and adjacent parcels are developed, which may be one or more years, will include necessary measures for consistency with the FPP, including:

- Regular Maintenance of dedicated Open Space.
- Removal of undesirable combustible vegetation and replacement of dead or dying landscaping.
- Maintaining ground cover at a height not to exceed 18 inches. Annual grasses and weeds shall be maintained at a height not to exceed three inches.
- Removing accumulated plant litter and dead wood. Debris and trimmings produced by thinning and pruning should be removed from the Project site or chipped and evenly dispersed in the same area to a maximum depth of four inches.
- Maintaining manual and automatic irrigation systems for operational integrity and programming. Effectiveness should be regularly evaluated to avoid over or under-watering.
- Complying with FPP requirements on a year-round basis. Annual inspections are conducted following the natural drying of grasses and fine fuels, between the months of May and June, depending on precipitation during the winter and spring months.

MM-FIRE-3 **Alternative Materials and Methods**. The Project Applicant/Developer shall ensure that the following requirements shall be placed on the construction contractor's contract specification for lots where compliance with the required Fuel Management Zone (FMZ) protection is achieved through a combination of FMZ and additional construction ignition resistance enhancements:

i. Windows on structures facing the open space areas shall include dual panes, with both panes tempered.
ii. Unless the building is a tilt-up structure, exterior walls and doors shall be constructed to a standard of Minimum 1-hour fire rated with one layer of 5/8-inch type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing, from the foundation to the roof, for all exterior walls of each building.
iii. Exterior vents shall be ember-resistant (recommend BrandGuard, O'Hagin, or similar vents approved by RCFD).
iv. A solid 6-foot-tall wall shall be constructed of concrete masonry units (CMUs) between on-site structures and open space.

Proof of compliance shall be provided to the March JPA prior to issuance of a Certificate of Occupancy for any structures that require these additional materials and methods.

See Section 4.9.3 in Section 4.9, Hydrology and Water Quality, for the text of **MM-HYD-3**, which is also applicable to wildfire impacts.

4.18.7 Level of Significance After Mitigation

All potentially significant impacts would be reduced to **less than significant levels with implementation of PDF-FIRE-1** through **PDF-FIRE-3** and mitigation measures **MM-FIRE-1 through MM-FIRE-3** and **MM-HYD-3** as outlined in Sections 4.18.5 and 4.18.6, above.

4.18.8 Cumulative Effects

A cumulatively significant impact related to wildfire risks could occur if the Project, in combination with the construction and operation of the related projects as shown in Table 4-2 of this EIR, were within or near a high or very high FHSZ, exacerbating wildfire risk based on topography and/or relationship to an emergency evacuation plan. The Project site, however, although proximate to areas designated as very high FHSZ, is not itself designated as a FHSZ. As explained below, impacts from nearby projects would be limited, if any, and the Project site would be primarily affected by proposed Project activities, which would be mitigated through **PDF-FIRE-1** through **PDF-FIRE-3, MM-FIRE-1** through **MM-FIRE-3, and MM-HYD-3**.

The Project site is not located within a very high FHSZ. The nearest very high FHSZ to the Project site is approximately 1.15 miles west of the Conservation Easement and 1.45 miles west of the Specific Plan Area. As mentioned previously, Project-related impacts regarding the exposure of people or structures to significant risk of runoff, post-fire slope instability, or drainage changes would be less than significant based on discussions within Section 4.6, Geology and Soils, and Section 4.9, Hydrology and Water Quality. As such, Project-related impacts are specific to the Project site and would not contribute to (or be shared with in an additive sense) the impacts on other project sites. Therefore, the proposed Project would contribute a less than significant cumulative impact.

Each related project would be required to satisfy the policies and regulations within the CFC and its respective jurisdiction's regulations to reduce impacts related to emergency access, fire flow, and proximity to wildfire zones. Similar to the proposed Project, each of the related projects would be individually subject to either RCFD review or review by its own fire department and would be required to comply with all applicable construction-related and operational fire safety requirements of the RCFD in order to adequately reduce potential wildfire impacts. Therefore, the proposed Project would not contribute to any significant cumulative wildfire impacts. Impacts would be less than significant.

With respect to emergency plans, the design of each related project would be evaluated individually in coordination with its respective jurisdiction's applicable department (such as RCFD and the Sheriff's Department) to minimize any potential impacts. As such, the Project's impacts related to wildfire risk **would not be cumulatively considerable**.

4.18.9 References Cited

Braziunas, Kristin H., Seidl Rupert, Rammer, Werner, and Turner, Monica G. (2021). "Can we manage a future with more fire? Effectiveness of defensible space treatment depends on housing amount and configuration" Landscape ecology 36, no. 2 (2021): 309-330. doi: 10.1007/s10980-020-01162-x

CAL FIRE (California Department of Forestry and Fire Protection). 2007. Fire Hazard Severity Zones Map. Fire Hazard Severity Zones in SRA: Riverside County (West). Adopted by CAL FIRE on November 7, 2007. https://osfm.fire.ca.gov/media/6752/fhszs_map60.pdf.

CAL FIRE. 2009. Post Fire Erosion (perod04_1) (GIS Data). https://frap.fire.ca.gov/media/10572/perod04_1.zip.

CAL FIRE. 2018. *2018 Strategic Fire Plan for California*. August 22, 2018. https://osfm.fire.ca.gov/media/5590/2018-strategic-fire-plan-approved-08_22_18.pdf.

CAL FIRE. 2021. Fire and Resource Assessment Program (FRAP). FHSZ County GIS Data. Accessed April 2020. https://frap.fire.ca.gov/frap-projects/fhsz-in-sra-county-data/.

CAL FIRE 2022. Defensible Space. Available at: https://www.fire.ca.gov/programs/communications/defensible-space-prc-4291/

California Office of the Attorney General. 2022. Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act. Accessed December 30, 2022. https://oag.ca.gov/system/files/attachments/press-docs/2022.10.10%20%20Wildfire%20Guidance.pdf.

CARB, OEH, CDC, USFS, and EPA (California Air Resources Board, California Office of Environmental Health Hazard Assessment, U.S. Centers for Disease Control and Prevention, U.S. Forest Service, and U.S. Environmental Protection Agency). 2019. *Wildfire Smoke: A Guide for Public Health Officials*. August 2019. https://www3.epa.gov/airnow/wildfire-smoke/wildfire-smoke-guide-revised-2019.pdf.

Cochrane, M. A., Moran, C. J., Wimberly, M. C., Baer, A. D., Finney B, M. A., Beckendorf, K. L., Eidenshink, J., & Zhu, Z. 2012. Estimation of wildfire size and risk changes due to fuels treatments. International Journal of Wildland Fire, 21, 357–367. https://doi.org/10.1071/WF11079

County of Riverside. 2017. *Emergency Operations Plan Template*. Implemented by the Emergency Management Department. https://rivcoemd.org/Programs/Preparedness/Plans.

County of Riverside 2021. Riverside County General Plan, Safety Element, adopted September 28, 2021. Available at: https://planning.rctlma.org/General-Plan-Zoning/General-Plan

County of Riverside Emergency Management Department. 2018. *Multi-Jurisdictional Local Hazard Mitigation Plan*. Adopted July 2018. https://rivcoemd.org/Portals/0/FINAL%20PUBLIC%20VERSION%20Riv_Co_%202018%20Multi%20Jurisdictional%20Local%20Hazard%20Mitigation%20Plan.pdf.

Gorte, R. W. 2011. Wildfire protection in the Wildland-Urban interface. In Wildfires and Wildfire Management.

IBHS (Institute for Business and Home Safety). 2021. Suburban Wildfire Adaptation Roadmaps, A Path to Coexisting with Wildfires. November 2021.

International Code Council. 2018. *International Fire Code*. https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/ifc/.

March JPA (Joint Powers Authority). 1999. *General Plan of the March Joint Powers Authority, Section 6, Safety/Risk Management Element*. https://www.marchjpa.com/documents/docs_forms/general_plan_updt_011718.pdf.

March JPA. 2020. “About the JPA.” Accessed April 2020. https://www.marchjpa.com/about.php.

Moench, R. and Fusaro, J. 2012. ”Soil Erosion Control after Wildfire.” Colorado State Extension. 6.308

National Wildfire Coordinating Group. 2009. *Guidance for Implementation of Federal Wildland Fire Management Policy*. February 13, 2009. https://www.nifc.gov/policies/policies_documents/GIFWFMP.pdf.

National Fire Protection Association (NFPA) 2018. NFPA 1144, Standard for Reducing Structure Ignition Hazards from Wildland Fire.

RCFD (Riverside County Fire Department). 2020. “Our Department: History.” Accessed April 2020. http://www.rvcfire.org/ourDepartment/History/Pages/default.aspx.

Scott, J. H., Thompson, M. P., & Gilbertson-Day, J. W. 2016. Examining alternative fuel management strategies and the relative contribution of National Forest System land to wildfire risk to adjacent homes - A pilot assessment on the Sierra National Forest, California, USA. Forest Ecology and Management, 362, 29–37. https://doi.org/10.1016/j.foreco.2015.11.038

Sosnowski, A. 2021. What are Santa Ana winds? AccuWeather, Inc. Retrieved July 7, 2021. https://www.accuweather.com/en/weather-news/what-are-santa-ana-winds-2/343027.

Syphard, Alexandra D., Teresa J. Brennan, and Jon E. Keeley. "The role of defensible space for residential structure protection during wildfires." International Journal of Wildland Fire 23.8 (2014): 1165-1175.

USDA (United States Department of Agriculture). 2005. *Wildland Fire in Ecosystems: Effects of Fire on Soil and Water*. September 2005. https://www3.epa.gov/airnow/wildfire-smoke/wildfire-smoke-guide-revised-2019.pdf.

USFS (U.S. Forest Service). 2000. *Managing the Impacts of Wildfire on Communities and the Environment: A Report to the President In Response to the Wildfires of 2000*. September 8, 2000. https://www.forestsandrangelands.gov/documents/resources/reports/2001/8-20-en.pdf.

Wang, H. H., Finney, M. A., Song, Z. L., Wang, Z. S., & Li, X. C. 2021. Ecological techniques for wildfire mitigation: Two distinct fuelbreak approaches and their fusion. Forest Ecology and Management, 495(May), 119376. https://doi.org/10.1016/j.foreco.2021.119376

Weather Spark 2022. Average Weather in Moreno Valley. Available at: https://weatherspark.com/y/1875/Average-Weather-in-Moreno-Valley-California-United-States-Year-Round

Zhou, A. 2013. Performance evaluation of ignition-resistant materials for structure fire protection in the WUI. Fire and Materials 2013 - 13th International Conference and Exhibition, Conference Proceedings, January 2013, 355–366.

5 Other CEQA Considerations

5.1 Introduction

California Environmental Quality Act (CEQA) Guidelines Section 15126 requires Environmental Impact Reports (EIRs) to include a discussion of the significant environmental effects of a project, the unavoidable significant environmental effects if the project is implemented, any irreversible changes should the project be implemented, and growth-inducing impacts. The following section incorporates these analyses, as required by CEQA.

5.2 Effects Found Not to Be Significant

CEQA provides that an EIR focus on the significant effects on the environment, discussing the effects with emphasis in proportion to their severity and probability of occurrence (CEQA Guidelines Section 15143). Effects dismissed in an Initial Study (Environmental Checklist) as clearly insignificant and unlikely to occur need not be discussed further in the EIR unless information inconsistent with the finding in the Initial Study is subsequently received.

Section 21100(c) of the California Public Resources Code states that an EIR must contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were, therefore, not discussed in detail in the EIR. CEQA Guidelines Section 15128 adds, "Such a statement may be contained in an attached copy of an Initial Study."

The Initial Study prepared and circulated with the Notice of Preparation (Appendix A) for public review on November 19, 2021, for the West Campus Upper Plateau Project (Project) concluded that the Project would not result in significant impacts to the issue areas discussed below. Moreover, the discussion below reflects the impact analysis under the potential buildout scenario presented in Chapter 3, Project Description, of this EIR.

5.2.1 Aesthetics

The Project would result in no impact to aesthetics for the following reasons:

Scenic Resources within a State Scenic Highway: According to the California Department of Transportation's California Scenic Highway Program, no officially designated or eligible state scenic highways located adjacent to or near the Project site (Caltrans 2021). The Specific Plan Area is primarily vacant/previously developed area and the Conservation Easement would be managed for its wildlife habitat value for sensitive species in compliance with the Center for Biological Diversity (CBD) Settlement Agreement (Appendix S). As the Project site is not located adjacent to or near an officially designated or eligible state scenic highways, no substantial adverse effect on scenic resources would occur. **No impact** would occur.

5.2.2 Agricultural Resources

The Project would result in no impact to agriculture and forestry resources for the following reasons:

Conversion of Farmland to Non-Agricultural Use: Per the State of California Department of Conservation, the Project site is located within areas designated as Farmland of Local Importance; however, it is not located within an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2016). The site is

designated as "Urban and Built Up Land," "Vacant or Disturbed Land," and "Non- Irrigated Farmland" per the California Important Farmland Finder for Riverside County (DOC 2016). The Project site is located within March Joint Powers Authority (JPA) land use jurisdiction, adjacent to the March Air Reserve Base, and is not used for farming or agricultural activities. **No impact** would occur.

Conflict with Zoning for Agricultural Use or Williamson Act Contract: The Project site and surrounding area do not encompass agricultural resources or land under a Williamson Act contract (DOC 2017). The March JPA General Plan designates the site as Business Park (BP) and Park/Recreation/Open Space (P/R/OS) (March JPA 1999). The Project site has not been assigned a zoning designation per the official March JPA Zoning Map, as shown on Figure 3-3, March JPA Zoning Designations. Therefore, the Project would not conflict with agricultural zoning or an existing Williamson Act contract and **no impact** would occur.

Conflict with Zoning for Forest Land or Timberland: The Project site is designated Business Park (BP) and Park/Recreation/Open Space (P/R/OS) under the March JPA General Plan, which does not allow for timberland production. The Project site has not been assigned a zoning designation per the official March JPA Zoning Map, as shown on Figure 3-3, March JPA Zoning Designations. In addition, there are no forest lands or timberland on or in the vicinity of the Project site. Therefore, the Project would not conflict with zoning for forest land or timber land and **no impact** would occur.

Loss of Forest Land or Convert Forest Land to Non-Forest Use: There are no forest lands on or in the vicinity of the Project site; thus, the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. As such, **no impact** would occur.

Cause a Change in Existing Environment that Could Result in the Conversion of Farmland to Non-Agricultural Use or Conversion of Forest Land to Non-Forest Use: The Project site is designated Business Park (BP) and Park/Recreation/Open Space (P/R/OS) under the March JPA General Plan (March JPA 1999) and is surrounded by residential and industrial developments. The Project site has also not been assigned a zoning designation per the official March JPA Zoning Map, as shown on Figure 3-3, March JPA Zoning Designations. The Project site does not contain farmland and/or forest land, and the proposed Project would not result in the conversion of existing farmland or forest land to non-agricultural or non-forest uses. In addition, the proposed Project would not result in the loss of any forest land, nor would it convert either agriculture or forest land and timberland. **No impact** would occur.

5.2.3 Geology and Soils

The Project would result in a less-than-significant impact to the following geology and soils issue areas:

Rupture of a Known Earthquake Fault: The nearest fault zone, the San Jacinto Fault zone, is located approximately 10 miles east of the Project site (DOC 2018). As discussed in detail in Chapter 3, Project Description, of this EIR, the Specific Plan outlines land uses planned for the Project area, and this Draft EIR assumes a buildout of the Specific Plan Area consisting of ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Project also includes a park and infrastructure improvements. The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical changes are anticipated as part of this action, the Conservation Easement would not result in the rupture of a fault. However, construction of the proposed Specific Plan Area would be required to meet California Building Code standards. In addition, March JPA would review and approve the plans

and specifications of the proposed Specific Plan Area to ensure compliance with the provisions of the California Building Code and Title 24, which regulates building standards. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. Because the Project site is not within an Alquist-Priolo Earthquake Fault Zone, pursuant to the Department of Conservation's Fault Activity Map of California (DOC 2018), and given that the proposed Project is required to comply with the provisions of the California Building Code and Title 24, the potential for exposing people or structures to potential substantial adverse effects, including risk of loss, injury, or death involving rupture of a known Alquist-Priolo earthquake fault is low. Therefore, Project impacts related to the rupture of a known earthquake fault would be **less than significant**.

Soil Erosion or Loss of Topsoil: As discussed in detail in Chapter 3 of this EIR, the Specific Plan outlines land uses planned for the Project area, and this Draft EIR assumes a buildout of the Specific Plan Area consisting of ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Project also includes a park and infrastructure improvements. The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical changes are anticipated as part of this action, the Conservation Easement would not result in soil erosion. However, construction activities, such as excavation and grading of the Specific Plan Area, may have the potential to cause short-term soil erosion or the loss of topsoil. Short-term erosion effects during construction of the proposed Specific Plan Area would be minimized through implementation of a Stormwater Pollution Prevention Plan (SWPPP) as required in compliance with the NPDES program, and through incorporation of best management practices intended to reduce soil erosion. A SWPPP will be prepared for the proposed Project by March JPA in order to comply with the NPDES program. The SWPPP is required by the March JPA during plan review and approval of the proposed Specific Plan Area improvement plans. The SWPPP may include standard construction methods, such as temporary detention basins, to control on-site and off-site erosion. With implementation of an approved SWPPP, impacts resulting from soil erosion or loss of topsoil would be minimized. Therefore, impacts resulting from soil erosion or loss of topsoil would be minimized, and impacts would be **less than significant**.

Septic Tanks/Alternative Wastewater Disposal Systems: The Project would not result in the need for a septic tank or alternative wastewater disposal system because the facilities constructed as part of the Project would connect to an existing sewer system surrounding the Project site's local vicinity through the incorporation of planned infrastructure improvements (see Chapter 3 of this Draft EIR for more discussion). The Project would not involve other alternative wastewater disposal methods. As such, **no impact** would occur.

5.2.4 Hazards and Hazardous Materials

The Project would result in a less-than-significant impact to the following hazards and hazardous material issue areas:

Located on a Site Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5: According to the GeoTracker database, the Project site is not located on a site with known contamination (SWRCB 2021). In addition, according to the EnviroStor database, the Project site is not located on a hazardous materials site (DTSC 2021). As such, **no impact** would occur.

Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan: March JPA adopted a Disaster Preparedness and Recovery Plan within the Safety/Risk Management Element of the General Plan (March JPA 1999). This plan outlines the implementation programs needed to prevent risks to occupants and to minimize injury from an unavoidable disaster or emergency. As part of the Project, 445.43 acres would be established as a Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical changes are anticipated as part of this action, the Conservation Easement will not have a substantial adverse effect on an emergency response plan.

Entrances to the Specific Plan Area would be located along the west, north, and east sides of the Specific Plan Area. Primary access to the Specific Plan Area would be provided from the east via Cactus Avenue, which would be extended to the west from its current western terminus through the Campus Development. A north and south entrance to the proposed Park would be accessed by extending Barton Street to connect from Alessandro Boulevard to Barton Drive, which the Project would construct. The entrance to the east of the Project site would be located along Cactus Avenue, approximately 1 roadway mile west of the I-215/Cactus Avenue on-/off-ramp. The Project would also have an additional access point to the north via Brown Street which the Project would construct to connect from Alessandro Boulevard to the new extension of Cactus Avenue. In addition, the Specific Plan Area includes the construction of Arclight Drive, Airman Drive, Linebacker Drive, and Bunker Hill Drive, which would provide access to the various parcels within the Specific Plan Area. Truck routes are proposed along Cactus Avenue to I-215, as well as along Brown Street to Alessandro Boulevard. All roadways constructed as part of the Specific Plan Area would provide access for passenger and emergency vehicles. Furthermore, by extending Barton Street and Brown Street, the proposed Specific Plan Area would increase the connectivity between the existing residential communities to the north, west, and south, as well as the industrial development to the east. As shown in Figure 3-6, trucks from the Specific Plan Area would be unable to access the Barton Street extension. Trucks would also be prohibited from turning left on Brown Street to access Alessandro Boulevard.

An access driveway to the site would be provided on Cactus Avenue and Brown Street. According to the March JPA General Plan's Transportation Element, Cactus Avenue and Brown Street are classified as Major Arterial roadways, which provide access to I-215 to the east. Brown Street connects to Alessandro Boulevard (Arterial Highway) to the north which then connects to I-215 to the east (March JPA 1999). The proposed site plan, including the access driveways, would be reviewed and approved by March JPA, the Riverside County Sheriff's Department, and the Riverside County Fire Department during plan review to ensure that emergency access would be provided at all times. To minimize the impact of construction activities, the Project applicant would be required to develop and implement a March JPA-approved Construction Traffic Management Plan addressing potential construction-related traffic detours and disruptions. In general, the Construction Traffic Management Plan (**PDF-TRA-1**) would ensure that to the extent practical, construction traffic would access the Project site during off-peak hours; and that construction traffic would be routed to avoid travel through, or proximate to, sensitive land uses. Any potential impacts created by the proposed Specific Plan Area would be mitigated to a level of less-than-significant with implementation of the Disaster Preparedness and Recovery Plan programs within the General Plan. Therefore, impacts would be **less than significant**.

5.2.5 Land Use and Planning

The Project would result in a less-than-significant impact to the following land use and planning issue area:

Physically Divide an Established Community: As discussed in detail in Chapter 3 of this EIR, the Project proposes a Specific Plan with a planned buildout of the Specific Plan Area consisting of ten Business Park parcels, six Mixed Use

parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Project also includes a park and infrastructure improvements. The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical changes are anticipated as part of this action, the Conservation Easement would not physically divide an established community. The Specific Plan Area is previously disturbed and surrounded to the north, west, and south by residential developments, and to the east by industrial developments. The Project site is located within the jurisdiction of March JPA, which has designated the area for Business Park (BP) and Park/Recreation/Open Space (P/R/OS) in the March JPA General Plan. The Project includes a General Plan Amendment to redesignate the site's land to allow for industrial, business park, and mixed-use areas, consistent with the surrounding areas. Therefore, the Project would not divide an established community and impacts would be **less than significant**.

5.2.6 Mineral Resources

The Project would result in a less-than-significant impact to mineral resources for the following reasons:

Loss of a Known Mineral Resource: According to Figure OS-6 of the County of Riverside General Plan Multipurpose Open Space Element, the Project site is located within the Mineral Resource Zone 3 (MRZ-3), which is classified as an area where the significance of mineral deposits is undetermined (County of Riverside 2015). The Project site's existing land use designation is Business Park and Park/Recreation/Open Space. The Project would implement a proposed Specific Plan to allow for industrial, business park, mixed-use areas, park/recreation/open space, and public facilities. These land use designations would not allow for mining activities (see Table 3-2 of this Draft EIR). In addition, the proposed Project includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S), which would not result in any physical changes to the environment. Therefore, the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or residents of the state. As such, **no impact** would occur.

Loss of a Locally Important Mineral Resource Recovery Site: The Project site is not designated as a locally important mineral resource recovery site in the March JPA General Plan (March JPA 1999). The Project would not result in land uses allowing for the extraction of mineral resources. Therefore, the proposed Project would not result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan. As such, **no impact** would occur.

5.2.7 Noise

The Project would result in no impact to noise for the following reasons:

Evening and Morning Aircraft Operations: The Project includes a Specific Plan Area and a Conservation Easement, neither of which involve aircraft operations. Therefore, **no impact** would occur.

5.2.8 Population and Housing

The Project would result in no impact on population and housing for the following reasons:

Displace People or Housing: As discussed in detail in Chapter 3 of this EIR, the Project proposes a Specific Plan with a planned buildout of the Specific Plan Area consisting of ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created,

designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Project also includes a park and infrastructure improvements. The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). The Project site does not contain housing and its current General Plan designation would not allow housing. Therefore, the Project would not result in the displacement of people or housing. Therefore, **no impact** would occur.

5.2.9 Transportation

The Project would result in a less-than-significant impact to the following transportation issue areas:

Geometric Design Feature or Incompatible Use Hazards: As discussed in detail in Chapter 3 of this EIR, the Project proposes a Specific Plan with a planned buildout of the Specific Plan Area consisting of ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Project also includes a park and infrastructure improvements. The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical changes are anticipated as part of this action, the Conservation Easement would not increase hazards due to design features. Regional access to the Specific Plan Area is provided via I-215, with local access provided via Cactus Avenue, Brown Street, and Barton Street (Park access only). Within the proposed Specific Plan Area, Cactus Avenue would terminate at the loop roadway system that surrounds the two central Industrial parcels. However, a gated emergency vehicle access roadway would be incorporated into the Project to provide an emergency connection between Barton Street on the west and Cactus Avenue on the east; as such, trucks and vehicles from the Campus Development would not have access to Barton Street. The proposed vehicular access point and circulation outside/inside the Specific Plan Area, including the proposed parking lots, would be reviewed and approved by March JPA's planning and engineering staff. The Specific Plan Area does not include any non-standard design features, nor does it have any hazardous elements. Impacts would be **less than significant**.

Inadequate Emergency Access: As discussed in detail in Chapter 3 of this EIR, the Project proposes a Specific Plan with a planned buildout of the Specific Plan Area consisting of ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facilities parcels, and three Open Space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Project also includes a park and infrastructure improvements. The proposed Project also includes the establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). As no physical changes are anticipated as part of this action, the Conservation Easement would not have an adverse effect on emergency access. The Specific Plan Area consists of previously disturbed land with some existing development. The proposed Specific Plan Area would provide access to the development through the extension of Cactus Avenue, Brown Street, and Barton Street. A gated emergency vehicle access roadway would be incorporated into the Project to provide an emergency connection between Barton Street on the west and Cactus Avenue on the east. Access to the Specific Plan Area would be designed according to March JPA standards and all applicable emergency access standards. Furthermore, as evaluated in Threshold FIRE-1 in Section 4.18, Wildfire, of this EIR, the Specific Plan Area would be consistent with the October 2022 California Office of the Attorney General guidance outlining best practices for analyzing and mitigating wildfire impacts of development projects under CEQA. Through March JPA's site plan review, March JPA would ensure that the proposed Project would meet code requirements related to emergency access. Impacts would be **less than significant**.

5.3 Significant and Unavoidable Environmental Effects

CEQA Guidelines Section 15126(b) further directs EIRs to address impacts from a project that will result in significant impacts, including those that cannot be mitigated below a level of significance. A summary of all the environmental issue areas and the resultant significance and listing of mitigation measures is found in Chapter 1, Executive Summary, of this EIR. To summarize, the following issue areas would result in significant impacts even after mitigation measures have been incorporated, thus resulting in unavoidable impacts:

- Air Quality
- Cultural Resources
- Noise

5.4 Significant Irreversible Changes

CEQA Guidelines mandate that EIRs address any significant irreversible environmental changes that would occur if a Project were implemented (14 CCR 15126[c]). An impact would fall into this category if (14 CCR 15126.2[d]):

- The Project would involve a large commitment of nonrenewable resources.
- The primary and secondary impacts of the Project would generally commit future generations of people to similar uses.
- The Project involves uses in which irreversible damage could result from any potential environmental incidents associated with the Project.
- The proposed consumption of resources is not justified (e.g., the project results in wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Construction of each of the Project components would result in the use of nonrenewable resources and energy sources, including fossil fuels, natural gas, and electricity, as further discussed in Section 4.5, Energy, and Section 4.17, Utilities and Service Systems, of this Draft EIR. Fossil fuels would be used to power construction equipment and delivery and construction employee vehicles. Construction equipment would also use electricity and natural gas. Use of these energy sources would be considered a permanent commitment of resources. In addition, a variety of resource materials would be used during the construction process, including steel, wood, concrete, and fabricated materials. Once these materials and fuels are used for purposes of construction, the commitment of such materials and fuels would be considered irreversible. However, the proposed Project, when taking into consideration the global use of these materials, would not result in a large commitment of these resources.

Construction

Construction of each of the Project components would result in the use of nonrenewable resources and energy sources, including fossil fuels, natural gas, and electricity, as discussed in Section 4.5 of this EIR. Fossil fuels would be used to power construction equipment and delivery and construction employee vehicles. Construction equipment would also use electricity and natural gas. Use of these energy sources would be considered a permanent commitment of resources. However, Project impacts related to consumption of nonrenewable resources during construction are considered to be less than significant because the Project would not use unusual or wasteful amounts of energy or construction materials. Refer to Section 4.5 for a discussion of energy use during

construction of the proposed Project, and conservation measures that would be implemented. As described therein, there is sufficient capacity to serve construction of the proposed Project.

In addition to energy resources, a variety of nonrenewable resource materials would be used to construct the proposed facilities, including steel, wood, concrete, and fabricated materials. Once these materials and fuels are used for construction, the commitment of such materials would represent the loss of nonrenewable resources and would be considered irreversible. However, these construction materials and fuels would likely be committed to other development projects in the region if not used for this Project. Moreover, the resources used for construction of the Project would be typical of similar mixed-use, business park, and industrial developments within the region. Therefore, although irretrievable commitments of resources would result from construction of the proposed Project, such changes would be **less than significant**.

Operation

Although the Project site is mostly vacant, existing development consists of a nonoperational water tower, an existing public facility, paved and dirt access roads, and 16 bunkers that were previously used for munitions storage by the Air Force prior to March AFB's realignment in 1993. Once constructed, it is reasonable to assume that the industrial facilities would use nonrenewable energy resources, which would be an irreversible commitment of such resources. Therefore, once operational, Project components would consume more energy on a daily basis than is currently consumed on the Project site. However, the Project would be a relatively minor energy consumer compared to other local and regional users. Thus, the proposed energy consumption would not be considered a significant irreversible environmental effect.

Although the resources used for the Project would be permanently committed and, therefore, be considered irreversible, the proposed Project would not consume an unusual or wasteful amount of energy or materials and would comply with California Building Energy Efficiency Standards (24 CCR Part 6). In addition, the Project would implement a number of mitigation measures (MMs), including **MM-GHG-1** through **MM-GHG-14**, which would serve to reduce the Project's use of nonrecoverable materials and energy. The utilities that service the Project and the design of the proposed Project are all subject to regulations that are working to reduce the amount of nonrenewable resources from development projects. Although sustainability measures would reduce the use of materials and energy during construction and operation of the Project, they would nevertheless be unavailable for other uses. The resources used for the Project would be permanently committed and, therefore, be considered irreversible.

Irreversible changes may also occur from environmental damage incurred by the operation of the Project, such as spill or release of hazardous material or accidental fire resulting from mechanical or industrial failure. Although there are other types of accidents possible, those listed above represent the key sources for irreversible damage that can be associated with the types of future development proposed. However, it is assumed that all new uses of hazardous materials would occur pursuant to applicable laws and regulations. That is, industrial use involving hazardous materials would obtain and comply with a valid materials license specifying the requisite safety measures for the use, handling, storage, transportation, and disposal of these materials. In addition, the Project would implement mitigation measures, including **MM-HAZ-1** and **MM-HAZ-2**, which would serve to ensure impacts related to hazardous material releases or spills would be avoided. Therefore, this would not be considered a significant irreversible environmental effect or cause irreversible environmental damage.

5.5 Growth-Inducing Impacts

Section 15126.2(e) of the CEQA Guidelines requires a discussion of how the potential growth-inducing impacts of a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Induced growth is distinguished from the direct employment, population, or housing growth of a project (14 CCR 15126.2[e]). If a project has characteristics that "may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively," then these aspects of the project must be discussed as well. Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place in the absence of that project. Typically, the growth-inducing potential of a project is considered significant if it stimulates population growth or a population concentration above what is assumed in local and regional land use plans, or in projections made by regional planning authorities, such as the Southern California Association of Governments (SCAG).

The CEQA Guidelines also indicate that growth should not be assumed to be either beneficial or detrimental (14 CCR 15126.2[e]). According to Section 15126.2(e) of the CEQA Guidelines, a project may foster economic or population growth, or additional housing, either indirectly or directly, in a geographical area if it meets any one of the following criteria:

- The Project would remove obstacles to population growth.
- Increases in the population may tax existing community service facilities, causing significant environmental effects.
- The Project would encourage and facilitate other activities that could significantly affect the environment.

As discussed in detail in Chapter 3, Project Description of this EIR, the Specific Plan outlines the land uses planned for the Project area, and this Draft EIR assumes the following buildout of the Specific Plan Area for analysis:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use
- Industrial Area – 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1, 280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 60.28-acre park (with Active and Passive uses)
- 17.72 acres of Open Space use
- Public Facilities – 2.84 acres for future sewer lift station and electrical substation

The proposed Project also includes the placement establishment of a 445.43-acre Conservation Easement in compliance with the CBD Settlement Agreement (Appendix S). The Project site is surrounded by residential uses to the north, west, and south; the Meridian North and West Campuses, located within the March JPA planning area, to the east; and two new industrial buildings built by Exeter, located in Riverside County, to the east and north. The Project would not involve the development of additional housing. However, the Project would require the hiring of temporary construction workers during construction activities and part-time/full-time employees during Project operations of approximately 2,600 employees at Project buildout. Additionally, for the purposes of this analysis, this EIR assumes the Project's employees during operations would be filled by existing residents of the surrounding communities.

According to the SCAG Growth Forecast (an appendix to the SoCal Connect 2020–2045 RTP/SCS; SCAG 2020a), employment is anticipated to grow from 743,000 in 2016 to 1,103,000 by 2045 within Riverside County (SCAG 2020b). Total employees/staff for the Project at buildout is estimated to be approximately 2,600, which would be 0.93% of the County's total employment growth (280,000 jobs) in 2045. As such, the increase in employment would be minimal in comparison to the anticipated increase of the SCAG Growth Forecast. Therefore, the Project would not stimulate population growth or a population concentration above what is assumed in local and regional land use plans, or in projections made by regional planning authorities.

Indirect growth can also occur by a Project installing infrastructure that can support further growth. The Project site would be served by existing public services and connected to existing utilities; no new off-site utility systems would be needed to serve the Project. Therefore, indirect growth inducement into a new area would not occur.

Overall, the Project would indirectly stimulate population growth through the addition of approximately 2,600 new employees/jobs. This growth would be consistent with employment growth envisioned in local and regional land use plans and in projections made by regional planning authorities, because the planned growth of the Project and its land use intensity have been factored into the underlying growth projections of the SCAG 2020-2045 RTP/SCS (SCAG 2020a, 2020b).

5.6 References Cited

Caltrans (California Department of Transportation). 2021. "List of Eligible and Officially Designated State Scenic Highways." Accessed August 18, 2021. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways.

County of Riverside. 2015. *General Plan Multipurpose Open Space Element*. Revised December 8, 2015.

DOC (Department of Conservation). 2016. "California Important Farmland Finder." Accessed August 18, 2021. https://maps.conservation.ca.gov/dlrp/ciff/.

DOC. 2017. Division of Land Resource Protection. State of California Williamson Act Contract Land [Map]. Copyright 2017.

DOC. 2018. DOC Maps: Geologic Hazards. Data Viewer, Seismic Hazards Program: Alquist-Priolo Fault Hazard Zones. Accessed August 18, 2021. https://maps.conservation.ca.gov/geologichazards/#dataviewer.

DTSC (Department of Toxic Substances Control). 2021. EnviroStor Database. Accessed July 28, 2021. https://www.envirostor.dtsc.ca.gov/public/.

March JPA (Joint Powers Authority). 1999. *General Plan of the March Joint Powers Authority*.

SCAG (Southern California Association of Governments). 2020a. *Connect SoCal: 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*; Proposed Final. March 2020. Accessed August 18, 2021. https://www.connectsocal.org/Documents/Proposed/pfConnectSoCal-Plan.pdf.

SCAG. 2020b. *Demographics & Growth Forecast, Appendix to 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*. Adopted September 2020. Accessed August 18, 2021. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579.

SWRCB (State Water Resource Control Board). 2021. GeoTracker Database. Accessed July 18, 2021. https://geotracker.waterboards.ca.gov/.

6 Alternatives

6.1 Introduction

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, an Environmental Impact Report (EIR) is required to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project" (14 CCR 15126.6[a]). An EIR "must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation" (14 CCR 15126.6[a]). This alternatives discussion is required even if these alternatives "would impede to some degree the attainment of the project objectives, or would be more costly" (14 CCR 15126.6[b]).

The CEQA Guidelines further provide that the range of alternatives is guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are included (14 CCR 15126.6[f]). The EIR need only examine alternatives that could feasibly attain most of the basic objectives of the project. "Among the factors that may be taken into account when addressing feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries … and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site."

The inclusion of an alternative in an EIR does not constitute definitive evidence that the alternative is in fact "feasible." The final decision regarding the feasibility of alternatives lies with the decision maker for a given project, who must make the necessary findings addressing the potential feasibility of an alternative, including whether it meets most of the basic project objectives or reduces the severity of significant environmental effects pursuant to CEQA (California Public Resources Code, Section 21081; see also 14 CCR 15091).

Beyond these factors, the Guidelines require the analysis of a "no project" alternative and an evaluation of alternative location(s) for the project, if feasible. Based on the alternatives analysis, an environmentally superior alternative is to be designated. If the environmentally superior alternative is the "no project" alternative, then the EIR shall identify an environmental superior alternative among the other alternatives.

6.2 Project Objectives

In developing the alternatives to be addressed in this chapter, consideration was given to the ability to meet the basic objectives of the proposed West Campus Upper Plateau Project (Project) and eliminate or substantially reduce the identified significant environmental impacts. As stated in Chapter 3, Project Description, of this Environmental Impact Report (EIR), the proposed Project requests a General Plan Amendment, Specific Plan, Zoning Amendment, Tentative Tract Map, two Plot Plans, and a Development Agreement to redevelop the former munitions bunkers of the March AFB, along with a conservation easement over the Conservation Easement. The primary objectives of the Project include the following:

- Provide increased job opportunities for residents through the provision of employment-generating businesses
- Provide open space amenities to serve the region
- Provide an active park consistent with the 2009 Safety Study prepared by March JPA

- Complete the buildout of the roadway infrastructure by extending Cactus Avenue to the Specific Plan Area from its existing terminus, extending Barton Street from Alessandro Boulevard to Grove Community Drive, and extending Brown Street from Alessandro Boulevard to Cactus Avenue
- Remove and redevelop a majority of the former munitions storage area of the March AFB
- Encourage the use of alternative modes of transportation through the provision of a pedestrian and bicycle circulation system that is safe, convenient, and comfortable
- Implement the terms and conditions agreed upon in the September 12, 2012, Settlement Agreement entered into between and among the CBD, the San Bernardino Valley Audubon Society, March JPA, and LNR Riverside LLC, as the complete settlement of the claims and actions raised in *Center for Biological Diversity v. Jim Bartel, et al.* to preserve open space through establishing a Conservation Easement

6.3 Alternatives Considered but Rejected

As set forth in CEQA Guidelines Section 15126.6(c), an EIR should identify any alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for rejection. According to the CEQA Guidelines, among the factors that may be used to eliminate an alternative from detailed consideration are the alternative's failure to meet most of the basic project objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts. The following discussion presents information on alternatives to the Project that were considered but rejected. These alternatives are not discussed in further detail and have been eliminated from further consideration.

6.3.1 Alternate Site

In accordance with CEQA Guidelines, Section 15126.6(f)(2), the March JPA attempted to identify a feasible alternative off-site location within the Project area that could be available for the development of the Project. Pursuant to CEQA Guidelines, Section 15126.6(f)(2)(A), the key question and first step in analysis of the off-site location is whether any of the significant effects of the Project would be avoided or substantially lessened by moving the Project to another location.

After a review of available contiguous open spaces of approximately 369.60 acres (similar to the Specific Plan Area) within the Project vicinity, no large-scale additional sites that could accommodate the proposed Project exist. Further, the CBD Settlement Agreement specifically identifies the Conservation Easement for placement under the conservation easement (Appendix S).

Additionally, neither the March JPA nor the Project applicant have ownership of 369.60 acres elsewhere within the Project vicinity such that the Specific Plan Area could be developed on an alternate site. Therefore, off-site locations capable of accommodating the entire Project are considered infeasible, and no off-site location alternatives were carried forward in this analysis.

6.3.2 All Residential Alternative

The Project site is within the boundaries of the March ARB/Inland Port ALUCP and the March JPA General Plan areas. An all-residential project would not meet the basic Project objectives to provide increased job opportunities for residents through the provision of employment-generating businesses or to implement the terms and conditions

of the CBD Settlement Agreement (Appendix S). Further, the CBD Settlement Agreement specifically identifies the Conservation Easement for placement under the conservation easement.

March JPA's General Plan currently designates the Project site as Business Park (BP) and Park/Recreation/Open Space (P/R/OS). The Project site has not previously been given a zoning designation by March JPA. The General Plan does not include land zoned for new residential uses because the purpose of the jurisdiction is to increase employment opportunities within the region through the construction of employment-based land uses. Given the failure to meet basic Project objectives, this alternative was considered but rejected.

6.4 Alternatives Under Consideration

This section discusses the alternatives to the Project, including the No Project Alternative, under consideration. The No Project Alternative, which is a required element of an EIR pursuant to Section 15126.6(e) of the CEQA Guidelines, examines the environmental effects that would occur if the Project were not to proceed. The other alternatives are discussed as part of the "reasonable range of alternatives" selected by the lead agency.

Under the Specific Plan buildout scenario analyzed in this Draft EIR, the Campus Development would be developed with ten Business Park parcels, six Mixed Use parcels, three Industrial parcels, two Public Facility parcels, and three open space parcels. These parcels would be created, designated, and graded. Buildings B and C would be constructed on two of the Industrial Parcels. The remaining parcels would be developed with square footages as allowed under the Specific Plan. The Specific Plan also includes a 60.28-acre park west of the Barton Street extension under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The Specific Plan also includes installation of utility and roadway networks connecting to and throughout the Specific Plan Area, the construction of a new sewer lift station, the construction of a new electrical substation, and the construction of a new 0.5 million gallon (MG) reclaimed water tank.

The following alternatives are addressed in this section, followed by a more detailed discussion of each:

- **Alternative 1 – No Project**: Under Alternative 1, development of the Project would not occur as discussed in Chapter 3 of this Draft EIR. The Project site would remain unchanged, and no development activity would occur. As a result, the proposed General Plan Amendment, Specific Plan, Zoning Amendment, Tentative Tract Map, two Plot Plans, and a Development Agreement to redevelop the former munitions bunkers of the March AFB would not be necessary, as no new development would occur on the Project site that would trigger such actions. Alternative 1 would have no workforce or vehicle trips compared to the proposed Project. Additionally, the Conservation Easement would not be placed under a conservation easement.
- **Alternative 2 – Reduced Development Alternative**: Under Alternative 2, the Reduced Development Alternative, approximately 45.34 acres of the Project's Business Park (approximately 70% of the Project's total Business Park acreage) would be designated Open Space instead, as shown in Figure 6-1, Alternative 2 – Reduced Development Area Alternative. Under Alternative 2, the seven Business Park parcels to the north (approximately 34.51 acres) and the southern half of the Business Park parcels to the south would not be developed (leaving one Business Park parcel to the south of 10.93 acres). This would result in a reduction of the developable acreage in the Campus Development by approximately 18% and an increase in Open Space by approximately 60% in the Specific Plan Area compared to the proposed Project.
- **Alternative 3 – Restricted Industrial Building Size Alternative**: Under Alternative 3, Restricted Industrial Building Size Alternative, the development of the 56.27-acre Industrial parcel to the north of Building B

would be restricted to a minimum of two separate industrial buildings with a maximum floor area ratio (FAR) of 0.40. Under the Project's proposed Specific Plan, the Industrial zone has a maximum FAR of 0.50. Therefore, under the proposed Project, the 56.27-acre Industrial parcel could be developed with a single industrial building totaling 1,225,000 square feet. However, under Alternative 3, a two-building layout on 56.27 acres with a 0.40 FAR would each result in two buildings, each being 490,225 square feet. Therefore, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development (approximately 20% of the potential industrial development for the 56.27-acre Industrial parcel).

- **Alternative 4 – Reduced Cultural Resource Impact Alternative**: Under Alternative 4, Barton Street would be realigned to the east to avoid a known cultural resource site that otherwise would be directly impacted under the proposed Project during construction activities. To avoid this known cultural resource, Alternative 4 would realign the portion of Barton Street that extends north from the emergency access only roadway from Cactus Avenue to the east. Realigning Barton Street to the east would result in Barton Street bisecting the proposed Mixed-Use parcels west of Airman Drive and the Business Park parcel located on the northwest corner of Arclight Drive. Therefore, Alternative 4 would result in a 1.9-acre reduction of Mixed-Use area and a 4.35-acre reduction of Business Park area compared to the proposed Project. Additionally, by realigning this portion of Barton Street, there would an increase of 2.16 acres of Open Space to the west of Barton Street compared to the proposed Project. Alternative 4 would result in a slight reduction in workforce and total trips compared to the proposed Project.

In accordance with the CEQA Guidelines Section 15126.6(d), the discussion of the environmental effects of the alternatives may be less detailed than the discussion of the impacts of the Project. Table 6-1 provides a summary of the comparison of the impacts of the alternatives with the Project; an analysis of the Environmentally Superior Alternative is provided in Section 6.5. Pursuant to the CEQA Guidelines previously stated, as well as the Project objectives, a range of alternatives to the Project are considered and evaluated in this EIR. To summarize these Project alternatives, as suggested in CEQA Guidelines Section 15126.6(d), a matrix was prepared to summarize and compare the impacts of each Project alternative (Table 6-1).

Table 6-1. Comparison of Project and Alternatives Impacts

Environmental Topic	Project Impact	Alternative 1 No Project	Alternative 2 Reduced Development	Alternative 3 Restricted Industrial Building Size	Alternative 4 Reduced Cultural Resource Impact
Aesthetics	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	= LTS with Mitigation	▼ LTS with Mitigation
Air Quality	Significant and Unavoidable	▼ No Impact	▼ SUI	▼ SUI	▼ SUI
Biological Resources	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	= LTS with Mitigation	▼ LTS with Mitigation
Cultural Resources	Significant and Unavoidable	▼ No Impact	▼ SUI	= SUI	▼ SUI
Energy	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation

Table 6-1. Comparison of Project and Alternatives Impacts

Environmental Topic	Project Impact	Alternative 1 No Project	Alternative 2 Reduced Development	Alternative 3 Restricted Industrial Building Size	Alternative 4 Reduced Cultural Resource Impact
Geology and Soils	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	= LTS with Mitigation	▼ LTS with Mitigation
Greenhouse Gas Emissions	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Hazards/Hazardous Materials	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Hydrology/Water Quality	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	= LTS with Mitigation	▼ LTS with Mitigation
Land Use/ Planning	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Noise	Significant and Unavoidable	▼ No Impact	▼ SUI	▼ SUI	▼ SUI
Population and Housing	Less than Significant	▼ No Impact	▼ LTS	▼ LTS	▼ LTS
Public Services	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Recreation	Less than Significant	▼ No Impact	▼ LTS	▼ LTS	▼ LTS
Transportation	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation
Tribal Cultural Resources	Significant and Unavoidable	▼ No Impact	▼ SUI	= SUI	▼ SUI
Utilities/ Service Systems	Less than Significant	▼ No Impact	▼ LTS	▼ LTS	▼ LTS
Wildfire	Less than Significant with Mitigation	▼ No Impact	▼ LTS with Mitigation	▼ LTS with Mitigation	▼ LTS with Mitigation

Notes:

Green – No Impact or Less than Significant, Yellow – Less than Significant with Mitigation, Red – Significant and Unavoidable
▲ Impacts would be greater than those of the proposed Project.
= Impacts would be comparable to those of the proposed Project
▼ Impacts would be reduced when compared to those of the proposed Project.

6.4.1 Existing Conditions

Existing development within the Project site consists of a water tower, asphalt paved and dirt access roads, seven buildings in various states of abandonment, chain-link fencing, and 16 bunkers that were previously used for

munitions storage by the Air Force. All the bunkers are currently used by Pyro Spectaculars, Inc. for the storage of fireworks. The remainder of the Project site is generally unoccupied. While the Specific Plan Area encompasses existing development and previously disturbed land, the Conservation Easement primarily consists of open space and undeveloped land.

6.4.2 Alternative 1 – No Project

Under Alternative 1, development of the Project would not occur as discussed in Chapter 3 of this Draft EIR. The Project site would remain unchanged, and no development activity would occur. As a result, the proposed General Plan Amendment, Specific Plan, Zoning Amendment, Tentative Tract Map, two Plot Plans, and a Development Agreement to redevelop the former munitions bunkers of the March AFB would not be necessary, as no new development would occur on the Project site that would trigger such actions. Alternative 1 would have no workforce or vehicle trips compared to the proposed Project. Additionally, the Conservation Easement would not be placed under a conservation easement.

6.4.2.1 Environmental Analysis

Aesthetics

As discussed in Section 4.1, Aesthetics, implementation of the proposed Project would not have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of public views of the site and its surroundings with implementation of mitigation measure **MM-AES-1** (Construction Equipment Staging and Screening). Impacts would be less than significant, and no mitigation is required. With the implementation of **MM-AES-2** (Exterior Lighting Point-by-point Photometric Study Approval) and **MM-AES-3** (Solar Photovoltaic System Approval), the Project's impacts as a new source of substantial light or glare would be reduced to less than significant with mitigation incorporated.

Under Alternative 1, the Project site would remain in its current condition, and no development would occur. There would be no impact on scenic vistas. The visual character and quality of public views both of and from the site would remain unchanged. No new sources of substantial light or glare would be introduced to the site. Therefore, because no development would occur as a result of Alternative 1, there would be ***no aesthetics impacts***. This Alternative would result in a ***significant reduction*** in aesthetics impacts when compared to the proposed Project.

Air Quality

As discussed in Section 4.2, Air Quality, implementation of the proposed Project would result in potentially significant air quality impacts. With implementation of **MM-AQ-1**, the Specific Plan Area's construction air quality impacts would be reduced to less than significant levels. The Specific Plan Area's daily regional emissions from operations would exceed the SCAQMD thresholds of significance for emissions of VOCs, NO_X, CO, and PM_{10} and would, therefore, per SCAQMD criteria, be cumulatively potentially significant, and mitigation is required. **MM-AQ-2** through **MM-AQ-15** are designed to reduce Specific Plan Area operational-source VOCs, NO_X, CO, and PM_{10} emissions. There is no way to meaningfully quantify these reductions in CalEEMod, and therefore no numeric emissions credit has been taken in the analysis. As such, even with application of **MM-AQ-2** through **MM-AQ-15**, the Specific Plan's operational-source emissions impacts would be significant and unavoidable. Since Specific Plan operations would exceed the SCAQMD thresholds of significance, the Project would also conflict with the AQMP, thereby resulting in an additional significant and unavoidable impact. The construction and operation of the Specific Plan would not exceed applicable LST, CO hotspot, or HRA thresholds and impacts would be less than significant. The Specific Plan Area's odor and other emissions impacts would be less than significant.

Under Alternative 1, the Project site would remain in its current condition, and no development would occur. The Project site would continue to operate under existing conditions, and the air quality conditions would remain the same. Therefore, because no additional emissions would occur under Alternative 1, there would be ***no air quality impacts***. This Alternative would result in a ***significant reduction*** in air emissions when compared to the proposed Project.

Biological Resources

As discussed in Section 4.3, Biological Resources, implementation of the proposed Project would result in potentially significant biological impacts. The Specific Plan Area's effect on special status plant and wildlife species, direct impacts on burrowing owl, San Diego black tailed jackrabbit, coastal whiptail, orange-throated whiptail, and western yellow bat, Cooper's hawk, yellow warbler, and California horned lark and indirect impacts on Least Bell's Vireo and Stephens' Kangaroo Rat, would be reduced to less than significant with the implementation of **MM-BIO-1** (Best Management Practices), **MM-BIO-2** (Least Bell's Vireo), **MM-BIO-3** (Operation-Related Indirect Impacts to Special-Status Wildlife), **MM-BIO-4** (Stephens' Kangaroo Rat Avoidance), **MM-BIO-5A** (Burrowing Owl Avoidance and Mitigation Measures)/**MM-BIO-5B** (Burrowing Owl Relocation and Mitigation Plan), **MM-BIO-6** (San Diego Black-Tailed Jackrabbit), and **MM-BIO-7** (Nesting Bird Avoidance and Minimization Measures). The Specific Plan Area's effect on riparian habitat or other sensitive natural communities would be reduced to less than significant with implementation of **MM-BIO-8** (Upland Vegetation Communities) and **MM-BIO-9** (Aquatic Resources Mitigation). The Specific Plan Area's effect on state or federally protected wetlands would be reduced to less than significant with implementation of **MM-BIO-9**. The Specific Plan would have less than significant impacts to the movement of fish/wildlife, wildlife corridors, or native wildlife nursery sites. The Specific Plan's conflicts with local policies/ordinances protecting biological resources would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-9**. The Specific Plan's conflicts with an adopted HCP or other conservation plan would be reduced to less than significant with implementation of **MM-BIO-4, MM-BIO-5A/ MM-BIO-5B, MM-BIO-6,** and **MM-BIO-9**. As such, with implementation of **MM-BIO-1** through **MM-BIO-9**, the Project's impacts to biological resources would be reduced to less than significant levels.

Alternative 1 would not result in any potential impacts to biological resources because no construction or site disturbance would occur. Alternative 1 would not impact special-status species, riparian habitat, or state or federally protected wetlands and would not interfere with the movement of fish/wildlife, wildlife corridors or native wildlife nursery sites. Further, Alternative 1 would not conflict with local policies/ordinances protecting bio resources or an adopted HCP or other conservation plan. Therefore, Alternative 1 would have ***no impacts*** on biological resources. This Alternative would result in a ***significant reduction*** in impacts to biological resources when compared to the proposed Project.

Cultural Resources

As discussed in Section 4.4, Cultural Resources, implementation of the proposed Project would result in potentially significant impacts to cultural resources. However, even with the implementation of **MM-CUL-1** through **MM-CUL-8**, the Project's impacts to historical and archaeological resources would be significant and unavoidable. With implementation of **MM-CUL-9**, the Project's impacts to human remains would be less than significant.

Alternative 1 would not result in any impacts related to cultural resources because no construction or site disturbance would occur. Therefore, Alternative 1 would have ***no impacts*** on cultural resources (historic resources, archaeological resources, and human remains). This Alternative would result in a ***significant reduction*** in impacts to cultural resources when compared to the proposed Project.

Energy

As discussed in Section 4.5, Energy, construction and operation of the Specific Plan would not result in wasteful, inefficient, or unnecessary consumption of energy or conflict with or obstruct a state or local plan for renewable energy or energy efficiency with the incorporation of **MM-GHG-1** through **MM-GHG-11**. These mitigation measures would reduce the Specific Plan Area's energy impacts to less than significant levels.

Under Alternative 1, the Project site would remain in its current condition, and no development would occur. The Project site would continue to operate under existing conditions, and the demand for energy would remain the same. Therefore, because no additional demand for energy would occur under Alternative 1, there would be ***no energy impacts***. This Alternative would result in a ***significant reduction*** in energy impacts when compared to the proposed Project.

Geology and Soils

As discussed in Section 4.6, Geology and Soils, implementation of the Specific Plan would result in potentially significant impacts to geology and soils. The Specific Plan Area would have less than significant impacts with regard to strong seismic ground shaking, seismic-related ground failure, and expansive soils. With the implementation of **MM-GEO-1** (Slope Stability), the Specific Plan's impacts related to landslides and unstable soil would be reduced to less than significant. The Specific Plan Area's impacts to paleontological resources and site or unique geologic features would be reduced to less than significant with incorporation of **MM-GEO-2** (Paleontological Resources).

Alternative 1 would not result in any direct impacts related to geology and soils because no construction or site disturbance would occur. No construction or operational activities would take place that could expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking, seismic related ground failure, landslides, or unstable or expansive soils. Alternative 1 would not impact any paleontological resources or site or unique geologic features. Therefore, Alternative 1 would have ***no impacts*** to geology and soils. This Alternative would result in a ***significant reduction*** in impacts to geology and soils when compared to the proposed Project.

Greenhouse Gas Emissions

As discussed in Section 4.7, Greenhouse Gas Emissions, implementation of the Specific Plan would result in potentially significant GHG impacts because it could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. However, with implementation of **MM-GHG-1** through **MM-GHG-11**, the Specific Plan would be consistent with the applicable plans, and GHG impacts would be reduced to less than significant levels. Additionally, the Specific Plan would not conflict with any of the Senate Bill 32/2017 Scoping Plan elements since any regulations adopted would apply directly or indirectly to the Project. Furthermore, the proposed Project represents 0.90% of the anticipated increase in jobs for the WRCOG region, and therefore, would not result in long-term operational employment growth that exceeds planned growth projections in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) or an Air Quality Management Plan, or result in employment growth that would substantially add to traffic congestion.

Under Alternative 1, the Specific Plan Area would remain in its current condition, and no development would occur. The Specific Plan Area would continue to remain under existing conditions, and the GHG emissions would remain the same. Therefore, because no additional emissions would occur under Alternative 1, there would be ***no GHG impacts***. This Alternative would result in a ***significant reduction*** in GHG impacts when compared to the proposed Project.

Hazards and Hazardous Materials

As discussed in Section 4.8, Hazards and Hazardous Materials, implementation of the Specific Plan would result in potentially significant hazard and hazardous materials impacts. During construction within the Specific Plan Area, implementation of **MM-HAZ-1** would reduce the Project's impacts involving the routine transport, use, or disposal of hazardous materials. During operations, the Specific Plan would have a less than significant impact with regards to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. Given the proximity of the neighboring preschool at Community Grove Church, **MM-HAZ-2** is required to reduce potentially significant impacts associated with Project uses emitting and/or handling hazardous materials within one-quarter mile of an existing or planned school. With implementation of **MM-HAZ-3**, the Project's proximity to March ARB/Inland Port Airport would not result in a safety hazard or excessive noise for people residing or working in the Project area. **MM-FIRE-1** would reduce the Project's impacts involving wildland fires. With implementation of **MM-HAZ-1, MM-HAZ-2, MM-HAZ-3**, and **MM-FIRE-1,** the Project's hazards and hazardous materials impacts would be reduced to less than significant levels.

Alternative 1 would not result in any direct impacts related to hazards and hazardous materials because no construction or site disturbance would occur. With no construction or operations, Alternative 1 would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, 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, emit or handing hazardous materials within one-quarter mile of an existing or planned school, result in a safety hazard or excessive noise for people residing or working in the Project area due to its proximity to March ARB/Inland Port Airport, or expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. As no construction would occur, fire suppression and adherence to March ARB/Inland Port ALUCP and any ALUC review and approval of proposed plans would not be necessary. Therefore, Alternative 1 would have ***no hazards and hazardous materials impacts***. This Alternative would result in a ***significant reduction*** in hazards and hazardous materials impacts when compared to the proposed Project.

Hydrology and Water Quality

As discussed in Section 4.9, Hydrology and Water Quality, implementation of the Specific Plan would result in potentially significant impacts to hydrology and water quality. With implementation of **MM-HYD-1** (Interim Soil Stabilization Plan) and **MM-HYD-2** (Water Quality Management Plan), the Project's impacts to surface or groundwater quality would be reduced to less than significant levels. In addition, implementation of the Storm Water Pollution Prevention Plan (SWPPP) in conformance with the Construction General Permit would reduce potential discharge of polluted runoff from construction sites. Further, Project design features would ensure that post-construction runoff velocities would be less than existing conditions and would not substantially alter the existing drainage pattern of the site or area. The Project's impacts to groundwater supplies and recharge would be less than significant. With implementation of **MM-HYD-3** (Hydrology/Drainage Study), the Project's impacts related to on- or off-site erosion or siltation and runoff water would be reduced to less than significant. Further the Project would have a less than significant impact related to risk releasing of pollutants due to inundation, impeding or redirecting flood flows, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

Alternative 1 would not result in any direct impacts related to hydrology and water quality because no construction or site disturbance would occur. Alternative 1 would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, affect groundwater supplies or

recharge or alter the existing drainage pattern of the site. Alternative 1 would not have pollutants on site that could be released in the event of inundation. Finally, Alternative 1 would not conflict with, or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. Therefore, Alternative 1 would have ***no impacts*** to hydrology and water quality. This Alternative would result in a ***significant reduction*** in hydrology and water quality impacts when compared to the proposed Project.

Land Use and Planning

As discussed in Section 4.10, Land Use and Planning, with implementation of **MM-AQ-1** through **MM-AQ-15, MM-BIO-1** through **MM-BIO-9**, **MM-CUL-1** through **MM-CUL-9**, **MM-GEO-1, MM-GEO-2, MM-GHG-1** through **MM-GHG-11, MM-HAZ-1** through **MM-HAZ-3, MM-HYD-1** through **MM-HYD-3, MM-TRA-1** and **MM-TRA-2**, and **MM-FIRE-1** through **MM-FIRE-3,** the Project would be consistent or partially consistent with the March JPA General Plan Goals. March JPA designates the Project site as Business Park (BP), Industrial (IND), and Park/Recreation/Open Space (P/R/OS) land uses in the March JPA General Plan. The Project site has not previously been given a zoning designation by March JPA; therefore, the Project proposes zoning consistent with the proposed General Plan Amendment and Specific Plan designations of Mixed Use, Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facility for the site. The Project proposes adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13. The Project would be consistent with the March Development Code and the Riverside County ALUCP. Furthermore, the proposed Project would be consistent with the guiding principles, goals, and policies of Southern California Association of Governments' (SCAG's) Connect SoCal. As such, with incorporation of mitigation, the Project would result in less than significant land use impacts through conflicts with plans adopted for the purpose of avoiding or mitigating an environmental effect.

Under Alternative 1, the March JPA General Plan amendment and zoning designation would not be implemented, and the existing March JPA General Plan land use and zoning designations would remain. Alternative 1 would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the site adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, Alternative 1 would have ***no land use and planning impacts***. This Alternative would result in a ***significant reduction*** in land use and planning impacts when compared to the proposed Project.

Noise

As discussed in Section 4.11, Noise, the Project would not generate substantial temporary or permanent increase in ambient noise levels, with the exception of traffic noise level increases along a non-sensitive roadway segment: Cactus Avenue east of Meridian Parkway (Segment #13). Therefore, the Project would have a significant and unavoidable noise impact and no feasible mitigation measures are available to reduce Project-related significant traffic noise increases along Segment #13. All other noise and vibration impacts associated with construction and operation of the Project would be less than significant.

Alternative 1 would not result in any construction or introduce any new land uses or vehicle trips with the potential to generate noise. The existing noise conditions at the Project site and in the vicinity of the Project site would remain unchanged. Therefore, Alternative 1 would have ***no noise impacts***. This Alternative would result in a ***significant reduction*** in noise impacts when compared to the proposed Project.

Population and Housing

As discussed in Section 4.12, Population and Housing, Under the buildout scenario, it is anticipated that the Project would employ approximately 2,600 full-time employees. Based on the County's unemployment rate, this EIR assumes that the Project's employees would be primarily existing residents of Riverside County. The anticipated number of jobs generated by the Project would be a nominal addition to the County's existing and projected labor force. Thus, the employment growth that would be attributed to the Project is consistent with SCAG's overall growth projections and would not result in a substantial increase of unplanned population growth. Therefore, the Project would have a less than significant impact related to population and housing, and no mitigation is required.

Alternative 1 would not result in any direct impacts related to population and housing because nothing would be built as a result of Alternative 1, and employees would not be introduced to the area. No construction or development activities would take place that could generate an increase in population or housing; therefore, Alternative 1 would have ***no impacts*** to population and housing compared to the Project. This Alternative would result in a ***significant reduction*** in impacts to population and housing when compared to the proposed Project.

Public Services

As discussed in Section 4.13, Public Services, with the implementation of **MM-FIRE-1**, the Project's impacts to fire services would be reduced to less than significant. The Project's impacts to police services, schools, parks and other public facilities would be less than significant, and no mitigation is required.

Alternative 1 would not result in any direct impacts related to public services because nothing would be built as a result of Alternative 1, and employees would not be introduced to the area. No construction or development activities would take place that could generate an increase in the demand for public services; therefore, Alternative 1 would have ***no public services impacts***. This Alternative would result in a ***significant reduction*** in impacts to public services when compared to the proposed Project.

Recreation

As discussed in Section 4.14, Recreation, it is likely that the majority of the Campus Development's future employees are already residents of the nearby communities and are already using the local parks and recreational facilities. There could be an increase in demand for recreational facilities but because the Project's employees and surrounding neighborhoods would have access to the proposed 60.28-acre Park, any increased demand would not result in the need to construct additional recreational facilities under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The impacts related to the Park's construction have been included in all of the analyses in this Draft EIR. Additionally, the currently existing service roads within the Conservation Easement, as depicted by the red lines on Figure 3-4, would continue to be utilized by the public for passive recreation as authorized by the March JPA, consistent with the terms of the CBD Settlement Agreement (Appendix S). Therefore, the Project would result in less than significant impacts to recreational facilities and no mitigation is required.

Alternative 1 would not result in any direct impacts related to recreational activities as it would not introduce employees to the area that would increase the demand for recreational facilities. The currently existing service roads within the Project site would continue to be utilized by the public for passive recreation as authorized by the March JPA, consistent with the terms of the CBD Settlement Agreement (Appendix S). As such, Alternative 1 would

result in ***no recreational impacts***. However, it should be noted that Alternative 1 would not result in the additional 60.28 acres of active and passive park uses, which would be beneficial to recreational users in the area. This Alternative would result in ***some reduction*** in impacts to recreation when compared to the proposed Project.

Transportation

As discussed in Section 4.15, Transportation, with the incorporation of **MM-TRA-1** (Construction Traffic Management Plan), Project construction impacts on the circulation system would be reduced to less than significant. With implementation of **MM-TRA-2** (Traffic Safety Plan for Barton Street), the Project's operational impacts on the circulation system would be *less than significant.* The Specific Plan Area's impact on VMT would be *less than significant*. Although the Specific Plan Area is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires the Project to provide funding for the installation of a bus shelter on Alessandro Boulevard. The Project's potential to increase hazards due to design features or incompatible uses would be reduced to *less than significant* with implementation of **MM-TRA-1** and **MM-TRA-2**.

Alternative 1 would not result in any direct or indirect impacts related to the circulation network because no development would occur, and no new vehicle trips or additional VMT would be introduced to the Project area. As such, Alternative 1 would have ***no transportation impacts***. This Alternative would result in a ***significant reduction*** in transportation impacts when compared to the proposed Project.

Tribal Cultural Resources

As discussed in Section 4.16, Tribal Cultural Resources, implementation of the proposed Project would result in potentially significant impacts to tribal cultural resources. However, even with implementation of **MM-CUL-1** through **MM-CUL-8**, the Project's impacts to tribal cultural resources would remain *significant and unavoidable*.

Alternative 1 would not result in any direct impacts related to tribal cultural resources because no construction or site disturbance would occur. No construction or development activities would take place that could impact potential tribal cultural resources; therefore, the Alternative 1 would have ***no tribal cultural resources impacts***. This Alternative would result in a ***significant reduction*** in impacts to tribal cultural resources when compared to the proposed Project.

Utilities and Service Systems

As discussed in Section 4.17, Utilities and Service Systems, the Project would have less than significant impacts to facilities providing water, wastewater, storm water, electric power, natural gas, and telecommunications. There are sufficient water supplies available and wastewater treatment capacity to serve the Project, resulting in less than significant impacts. The Project would have a less than significant impact on solid waste infrastructure and capacity and would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, the Project impacts to utilities and service systems would be less than significant and no mitigation is required.

Alternative 1 would not result in any direct impacts related to water, wastewater, storm water, electric power, natural gas, telecommunications and solid waste services because no development would occur, and employees would not be introduced to the area. No construction or development activities would take place that could generate an increase in needed water, wastewater, storm water, electric power, natural gas, telecommunications and solid waste services; therefore, Alternative 1 would have ***no utility and service systems impacts***. This Alternative would result in a ***significant reduction*** in impacts to utilities and service systems when compared to the proposed Project.

Wildfire

As discussed in Section 4.18, Wildfire, the Project site is near lands classified as Very High Fire Hazard Severity Zone (FHSZ) and implementation of the proposed Project would result in potentially significant wildfire impacts. However, with implementation of **MM-FIRE-1** through **MM-FIRE-3** as well as **MM-HYD-3**, the Project's potential to facilitate wildfire spread, exacerbate wildfire risk, or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes would be reduced to less than significant levels.

Alternative 1 would not result in any direct impacts related to wildfire because nothing would be built as a result of Alternative 1, and therefore Alternative 1 would not expose people or structures to significant risks related to wildfire. As such, Alternative 1 would have ***no wildfire impacts***. This Alternative would result in a ***significant reduction*** in impacts associated with wildfire when compared to the proposed Project.

6.4.2.2 Project Objectives

Under Alternative 1, the land on the Project site would remain vacant, and no new construction would be developed on the Project site. Additionally, the Conservation Easement would not be placed under a conservation easement. As shown in Table 6-2, Alternative 1 does not meet any objective.

Table 6-2. Summary of Alternative 1 Success at Meeting Project Objectives

Project Objective	Does Alternative 1 Meet Objective?
1. Provide increased job opportunities for residents through the provision of employment-generating businesses.	**No.** Under Alternative 1, no buildings would be constructed and therefore no new employment opportunities would be provided. The site would remain undeveloped and not provide for any employment opportunities.
2. Provide open space amenities to serve the region.	**No.** Under Alternative 1, no additional open space amenities would be provided.
3. Provide an active park consistent with the 2009 Safety Study prepared by March JPA.	**No.** Under Alternative 1, no active park would be provided.
4. Complete the buildout of the roadway infrastructure by extending Cactus Avenue to the Specific Plan Area from its existing terminus, extending Barton Street from Alessandro Boulevard to Grove Community Drive, and extending Brown Street from Alessandro Boulevard to Cactus Avenue.	**No.** Under Alternative 1, buildout of the roadway infrastructure would not occur.
5. Remove and redevelop a majority of the former munitions storage area of the March AFB.	**No.** Under Alternative 1, the former munitions storage area of the March AFB would not be removed and/or redeveloped.

Table 6-2. Summary of Alternative 1 Success at Meeting Project Objectives

Project Objective	Does Alternative 1 Meet Objective?
6. Encourage the use of alternative modes of transportation through the provision of a pedestrian and bicycle circulation system, which is both safe and comfortable.	**No.** Under Alternative 1, a new pedestrian and bicycle circulation system would not be developed.
7. Implement the terms and conditions agreed upon in the September 12, 2012, Settlement Agreement entered into between and among the CBD, the San Bernardino Valley Audubon Society, March JPA, and LNR Riverside LLC, as the complete settlement of the claims and actions raised in *Center for Biological Diversity v. Jim Bartel, et al.* to preserve open space through establishing a Conservation Easement.	**No**. Under Alternative 1, the Conservation Easement would not be placed under a conservation easement in contravention to the terms and conditions of the CBD Settlement Agreement.

6.4.3 Alternative 2 – Reduced Development Alternative

Under Alternative 2, the Reduced Development Alternative, approximately 45.34 acres of the Project's Business Park (approximately 70% of the Project's total Business Park acreage) would be designated Open Space instead, as shown in Figure 6-1. Under Alternative 2, the seven Business Park parcels to the north (approximately 34.51 acres) and the southern half of the Business Park parcels to the south would not be developed (leaving one Business Park parcel to the south at 10.93 acres in size). This would result in a reduction of the developable acreage in the Campus Development by approximately 18% and an increase in Open Space by approximately 60% in the Specific Plan Area compared to the proposed Project. Alternative 2's smaller development footprint would result in an approximately 9% workforce reduction (2,360 employees) and approximately 30% reduction in total trips (24,728 trips) compared to the proposed Project.

Table 6-3. Alternative 2 Buildout Land Uses

Use	Alternative 2 (acres)	Proposed Project (acres)	Alternative 2 vs. Proposed Project (acres)
Specific Plan Area			
Business Park	19.98	65.32	-45.34
Industrial	143.31	143.31	0
Mixed Use	42.22	42.22	0
Public Facility	2.84	2.84	0
Open Space	123.34	78	+45.34
Streets	37.91	37.91	0
Subtotal	369.60	369.60	0
Conservation Easement			
Open Space	445.43	445.43	0
Existing WMWD Water Tank			
Public Facility	2.87	2.87	0
Total Net Acres	**817.90**	**817.90**	**0**

6.4.3.1 Environmental Analysis

Aesthetics

As discussed in Section 4.1, Aesthetics, implementation of the proposed Project would not have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of public views of the site and its surroundings with implementation of **MM-AES-1** (Construction Equipment Staging and Screening). Impacts would be less than significant, and no mitigation is required. With the implementation of **MM-AES-2** (Exterior Lighting Point-by-point Photometric Study Approval) and **MM-AES-3** (Solar Photovoltaic System Approval), the Project's impacts as a new source of substantial light or glare would be reduced to less than significant with mitigation incorporated.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park (approximately 70% of the Project's Business Park area) would be designated Open Space instead, resulting in a corresponding reduction in workforce and total trips. This would result in a reduction of the developable acreage in the Campus Development by approximately 18%. Given Alternative 2's smaller development footprint, public views from the residential land uses to the north and south of the Project site would have more open space than the Project. Alternative 2 would have a less than significant impact on a scenic vista, the existing visual character, and the quality of public views of the site and its surroundings with implementation of **MM-AES-1**. Given Alternative 2's smaller development footprint, Alternative 2's potential impacts to scenic vistas, existing visual character and quality of public views would be similar but reduced when compared to the proposed Project. Alternative 2 would introduce fewer new sources of substantial light or glare than the Project but would still require implementation of **MM-AES-2** and **MM-AES-3** to reduce Alternative 2's light and glare impacts to less than significant. In summary, Alternative 2 would result in ***fewer aesthetic impacts*** than the proposed Project.

Air Quality

As discussed in Section 4.2, Air Quality, implementation of the proposed Project would result in potentially significant air quality impacts. With implementation of **MM-AQ-1**, the Specific Plan Area's construction air quality impacts would be reduced to less than significant levels. The Specific Plan Area's daily regional emissions from operations would exceed the SCAQMD thresholds of significance for emissions of VOCs, NO_X, CO, and PM_{10} and would, therefore, per SCAQMD criteria, be cumulatively potentially significant and mitigation is required. **MM-AQ-2** through **MM-AQ-15** are designed to reduce Specific Plan Area operational-source VOCs, NO_X, CO, and PM_{10} emissions. There is no way to meaningfully quantify these reductions in CalEEMod, and therefore no numeric emissions credit has been taken in the analysis. As such, even with application of **MM-AQ-2** through **MM-AQ-15**, Specific Plan Area operational-source emissions impacts would be significant and unavoidable. Since Specific Plan Area operations would exceed the SCAQMD thresholds of significance, the Project would also conflict with the AQMP, an additional significant and unavoidable impact. The construction and operation of the Specific Plan Area would not exceed applicable LST, CO hotspot, or HRA thresholds and impacts would be less than significant. The Specific Plan Area's odor and other emissions impacts would be less than significant.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park (approximately 70% of the Project's Business Park area) would be designated Open Space instead, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, construction and operations emissions under Alternative 2 would be similar but reduced compared to the proposed Project but would still be potentially significant. With implementation of **MM-AQ-1**, Alternative 2's construction air quality impacts would be reduced to less than significant levels. Under Alternative 2,

operational activities would be less intense than those associated with the proposed Project, thereby resulting in fewer vehicle trips and associated air emissions. However, Alternative 2's reduced development and vehicle trips would not reduce operational air emissions to levels below the SCAQMD thresholds of significance for emissions of VOCs, NO_X, CO, and PM_{10}. Even with application of **MM-AQ-2** through **MM-AQ-15**, Alternative 2 operational-source emissions impacts would be significant and unavoidable. Since Alternative 2 operations would exceed the SCAQMD thresholds of significance, Alternative 2 would also conflict with the AQMP, an additional significant and unavoidable impact. The construction and operation of Alternative 2 would not exceed applicable LST, CO hotspot, or HRA thresholds and impacts would be less than significant. Similar to the Project, Alternative 2's odor and other emissions impacts would be *less than significant.* In summary, Alternative 2 would result in ***reduced air quality impacts*** compared to the Project but would still result in ***significant and unavoidable*** air quality impacts.

Biological Resources

As discussed in Section 4.3, Biological Resources, implementation of the proposed Project would result in potentially significant biological impacts. The Specific Plan Area's effect on special status plant and wildlife species, direct impacts on burrowing owl, San Diego black tailed jackrabbit, coastal whiptail, orange-throated whiptail, and western yellow bat, Cooper's hawk, yellow warbler, and California horned lark and indirect impacts on Least Bell's Vireo and Stephens' Kangaroo Rat, would be reduced to less than significant with the implementation of **MM-BIO-1** (Best Management Practices), **MM-BIO-2** (Least Bell's Vireo), **MM-BIO-3** (Operation-Related Indirect Impacts to Special-Status Wildlife), **MM-BIO-4** (Stephens' Kangaroo Rat Avoidance), **MM-BIO-5A** (Burrowing Owl Avoidance and Mitigation Measures)/**MM-BIO-5B** (Burrowing Owl Relocation and Mitigation Plan), **MM-BIO-6** (San Diego Black-Tailed Jackrabbit), and **MM-BIO-7** (Nesting Bird Avoidance and Minimization Measures). The Specific Plan Area's effect on riparian habitat or other sensitive natural communities would be reduced to less than significant with implementation of **MM-BIO-8** (Upland Vegetation Communities) and **MM-BIO-9** (Aquatic Resources Mitigation). The Specific Plan Area's effect on state or federally protected wetlands would be reduced to less than significant with implementation of **MM-BIO-9**. The Specific Plan would have less than significant impacts to the movement of fish/wildlife, wildlife corridors, or native wildlife nursery sites. The Specific Plan's conflicts with local policies/ordinances protecting biological resources would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-9**. The Specific Plan's conflicts with an adopted HCP or other conservation plan would be reduced to less than significant with implementation of **MM-BIO-4, MM-BIO-5A/ MM-BIO-5B, MM-BIO-6,** and **MM-BIO-9**. As such, with implementation of **MM-BIO-1** through **MM-BIO-9**, the Project's impacts to biological resources would be reduced to less than significant levels.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park (approximately 70% of the Project's Business Park area) would be designated Open Space instead, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, impacts to biological resources under Alternative 2 would be similar but reduced compared to the proposed Project, but would still be potentially significant. Alternative 2's effect on special status plant and wildlife species, direct impacts on burrowing owl, San Diego black tailed jackrabbit, coastal whiptail, orange-throated whiptail, and western yellow bat, Cooper's hawk, yellow warbler, and California horned lark and indirect impacts on Least Bell's Vireo and Stephens' Kangaroo Rat, would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-7**. Alternative 2's effect on riparian habitat or other sensitive natural communities would be reduced to less than significant with implementation of **MM-BIO-8** and **MM-BIO-9**. Alternative 2's effect on state or federally protected wetlands would be reduced to less than significant with implementation of **MM-BIO-9**. Alternative 2 would have less than significant impacts to the movement of fish/wildlife, wildlife corridors, or native wildlife nursery sites. Alternative 2's conflicts with local policies/ordinances protecting biological resources would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-9**.

Alternative 2's conflicts with an adopted HCP or other conservation plan would be reduced to less than significant with implementation of **MM-BIO-4, MM-BIO-5A/MM-BIO-5B, MM-BIO-6,** and **MM-BIO-9**. In summary, given Alternative 2's smaller development footprint, Alternative 2 would have ***fewer biological resources impacts*** compared to the proposed Project.

Cultural Resources

As discussed in Section 4.4, Cultural Resources, implementation of the proposed Project would result in potentially significant impacts to cultural resources. However, even with the incorporation of **MM-CUL-1** through **MM-CUL-8**, the Project's impacts to historical and archaeological resources would be significant and unavoidable. With implementation of **MM-CUL-9**, impacts to human remains would be less than significant.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park (approximately 70% of the Project's Business Park area) would be designated Open Space instead, resulting in a corresponding reduction in workforce and total trips. No new buildings and/or grading would be introduced on this 45.34 acres. Without grading on this portion of the Project site, there is less likelihood of encountering previously unidentified cultural, historic and/or archaeological resources. Given Alternative 2's smaller development footprint, impacts to cultural resources under Alternative 2 would be similar but reduced compared to the proposed Project, but would still be potentially significant. Even with the incorporation of **MM-CUL-1** through **MM-CUL-8**, Alternative 2's impacts to historical and archaeological resources would be significant and unavoidable. With implementation of **MM-CUL-9**, Alternative 2's impacts to human remains would be less than significant. In summary, given Alternative 2's smaller development footprint, Alternative 2 would have ***fewer cultural resources impacts*** compared to the proposed Project, but would still result in ***significant and unavoidable*** impacts to historical and archaeological resources.

Energy

As discussed in Section 4.5, Energy, construction and operation of the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy or conflict with or obstruct a state or local plan for renewable energy or energy efficiency with the incorporation of **MM-GHG-1** through **MM-GHG-11**. These mitigation measures reduce the Project's energy impacts to less than significant.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, Alternative 2 would consume less energy compared to the proposed Project. With the incorporation of **MM-GHG-1** through **MM-GHG-11**, Alternative 2's energy impacts would be less than significant. In summary, given Alternative 2's smaller development footprint, Alternative 2 would have ***fewer energy impacts*** compared to the proposed Project.

Geology and Soils

As discussed in Section 4.6, Geology and Soils, implementation of the proposed Project would result in potentially significant impacts to geology and soils. The Specific Plan Area would have less than significant impacts with regard to strong seismic ground shaking, seismic-related ground failure, and expansive soils. With the implementation of **MM-GEO-1** (Slope Stability), the Project's impacts related to landslides and unstable soil would be reduced to less than significant. The Specific Plan Area's impacts to paleontological resources and site or unique geologic features would be reduced to less than significant with incorporation of **MM-GEO-2** (Paleontological Resources).

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, Alternative 2's impacts to geology and soils would be similar but reduced compared to the proposed Project but would still be potentially significant. Alternative 2 would have less than significant impacts with regard to strong seismic ground shaking, seismic-related ground failure, and expansive soils. With the implementation of **MM-GEO-1**, Alternative 2's impacts related to landslides and unstable soil would be reduced to less than significant. Alternative 2's impacts to paleontological resources and site or unique geologic features would be reduced to less than significant with incorporation of **MM-GEO-2**. In summary, because Alternative 2 would have a smaller development footprint, Alternative 2 would have ***fewer impacts to geology and soils*** compared to the proposed Project.

Greenhouse Gas Emissions

As discussed in Section 4.7, Greenhouse Gas Emissions, implementation of the proposed Project would result in potentially significant GHG impacts because it could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. However, with implementation of **MM-GHG-1** through **MM-GHG-11**, the Project would be consistent with the applicable plans, and GHG impacts would be reduced to *less than significant* levels. Additionally, the Project would not conflict with any of the Senate Bill 32/2017 Scoping Plan elements since any regulations adopted would apply directly or indirectly to the Project. Furthermore, the proposed Project represents 0.90% of the anticipated increase in jobs for the WRCOG region, and therefore, would not result in long-term operational employment growth that exceeds planned growth projections in the RTP/SCS or an Air Quality Management Plan, or result in employment growth that would substantially add to traffic congestion.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, Alternative 2's GHG emissions impacts would be similar but reduced compared to the proposed Project but would still be potentially significant because Alternative 2 could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. With implementation of **MM-GHG-1** through **MM-GHG-11**, Alternative 2 would be consistent with the applicable plans, and GHG impacts would be reduced to less than significant levels. In summary, given Alternative 2's smaller development footprint, Alternative 2 would have ***fewer GHG impacts*** compared to the proposed Project.

Hazards and Hazardous Materials

As discussed in Section 4.8, Hazards and Hazardous Materials, implementation of the proposed Project would result in potentially significant hazard and hazardous materials impacts. During construction of the Specific Plan Area, implementation of **MM-HAZ-1** would reduce the Project's impacts involving the routine transport, use, or disposal of hazardous materials. During operations, the Project would have a less than significant impact with regards to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. Given the proximity of the neighboring preschool at Community Grove Church, **MM-HAZ-2** is required to reduce potentially significant impacts associated with Project uses emitting and/or handling hazardous materials within one-quarter mile of an existing or planned school. With implementation of **MM-HAZ-3**, the Project's proximity to March ARB/Inland Port Airport would not result in a safety hazard or excessive noise for people residing or working in the Project area. **MM-FIRE-1** would reduce the Project's impacts involving wildland fires. With implementation of **MM-HAZ-1, MM-HAZ-2, MM-HAZ-3**, and **MM-FIRE-1,** the Project's hazards and hazardous materials impacts would be reduced to less than significant levels.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, Alternative 2's impacts related to hazards and hazardous materials would be similar but reduced compared to the proposed Project but would still be potentially significant. During Alternative 2 construction, implementation of **MM-HAZ-1** would reduce Alternative 2's impacts involving the routine transport, use, or disposal of hazardous materials. During operations, Alternative 2 would have a less than significant impact with regards to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. The development footprint under Alternative 2 would still introduce new uses within proximity of the preschool, and as such, **MM-HAZ-2** would still be required under Alternative 2. With implementation of **MM-HAZ-3**, Alternative 2's proximity to March ARB/Inland Port Airport would not result in a safety hazard or excessive noise for people residing or working in the Project area. **MM-FIRE-1** would reduce Alternative 2's impacts involving wildland fires to less than significant levels. In summary, given Alternative 2's smaller development footprint, Alternative 2 would have ***fewer impacts related to hazards and hazardous materials*** compared to the proposed Project.

Hydrology and Water Quality

As discussed in Section 4.9, Hydrology and Water Quality, implementation of the proposed Project would result in potentially significant impacts to hydrology and water quality. With implementation of **MM-HYD-1** (Interim Soil Stabilization Plan) and **MM-HYD-2** (Water Quality Management Plan), the Project's impacts to surface or groundwater quality would be reduced to *less than significant* levels. In addition, implementation of the Storm Water Pollution Prevention Plan (SWPPP) in conformance with the Construction General Permit would reduce potential discharge of polluted runoff from construction sites. Further, Project design features would ensure that post-construction runoff velocities would be less than existing conditions and would not substantially alter the existing drainage pattern of the site or area. The Project's impacts to groundwater supplies and recharge would be less than significant. With implementation of **MM-HYD-3** (Hydrology/Drainage Study), the Project's impacts related to on- or off-site erosion or siltation and runoff water would be reduced to less than significant. Further the Project would have a *less than significant* impact related to risk releasing of pollutants due to inundation, impeding or redirecting flood flows, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, Alternative 2's impacts to hydrology and water quality would be similar but reduced compared to the proposed Project but would still be potentially significant. With implementation of **MM-HYD-1** and **MM-HYD-2**, Alternative 2's impacts to surface or groundwater quality would be reduced to less than significant levels. In addition, implementation of the SWPPP in conformance with the Construction General Permit would reduce potential discharge of polluted runoff from construction sites. Further, Project design features would ensure that post-construction runoff velocities would be less than existing conditions and would not substantially alter the existing drainage pattern of the site or area. Alternative 2's impacts to groundwater supplies and recharge would be less than significant. With implementation of **MM-HYD-3,** Alternative 2's impacts related to on- or off-site erosion or siltation and runoff water would be reduced to less than significant. Further, Alternative 2 would have a less than significant impact related to risk releasing of pollutants due to inundation, impeding or redirecting flood flows, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan. In summary, given Alternative 2's smaller development footprint, Alternative 2 would have ***fewer impacts to hydrology and water quality*** compared to the proposed Project.

Land Use and Planning

As discussed in Section 4.10, Land Use and Planning, with implementation of **MM-AQ-1** through **MM-AQ-15, MM-BIO-1** through **MM-BIO-9**, **MM-CUL-1** through **MM-CUL-9**, **MM-GEO-1, MM-GEO-2, MM-GHG-1** through **MM-GHG-11, MM-HAZ-1** through **MM-HAZ-3, MM-HYD-1** through **MM-HYD-3, MM-TRA-1** and **MM-TRA-2**, and **MM-FIRE-1** through **MM-FIRE-3,** the Project would be consistent or partially consistent with the March JPA General Plan Goals. March JPA designates the Project site as Business Park (BP), Industrial (IND), and Park/Recreation/Open Space (P/R/OS) land uses in the March JPA General Plan. The Project site has not previously been given a zoning designation by March JPA; therefore, the Project proposes zoning consistent with the proposed General Plan Amendment and Specific Plan designations of Mixed Use, Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facility for the site. The Project proposes adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13. The Project would be consistent with the March Development Code and the Riverside County ALUCP. Furthermore, the proposed Project would be consistent with the guiding principles, goals, and policies of SCAG's Connect SoCal. As such, with incorporation of mitigation, the Project would result in less than significant land use impacts through conflicts with plans adopted for the purpose of avoiding or mitigating an environmental effect.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, Alternative 2's land use and planning impacts would be similar but reduced compared to the proposed Project. With implementation of **MM-AQ-1** through **MM-AQ-15, MM-BIO-1** through **MM-BIO-9**, **MM-CUL-1** through **MM-CUL-9**, **MM_GEO-1, MM-GEO-2, MM-GHG-1** through **MM-GHG-11, MM-HAZ-1** through **MM-HAZ-3, MM-HYD-1** through **MM-HYD-3, MM-TRA-1** and **MM-TRA-2**, and **MM-FIRE-1** through **MM-FIRE-3,** Alternative 2 would be consistent or partially consistent with the March JPA General Plan Goals. Similar to the proposed Project, Alternative 2 would propose zoning consistent with the proposed General Plan Amendment and Specific Plan designations of Mixed Use, Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facility for the site. Alternative 2 would also propose adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13. Alternative 2 would be consistent with the March Development Code and the Riverside County ALUCP. Alternative 2 would be consistent with the guiding principles, goals, and policies of SCAG's Connect SoCal. In summary, given Alternative 2's smaller development footprint, Alternative 2 would result in less than significant land use impacts and ***fewer land use and planning impacts*** compared to the proposed Project.

Noise

As discussed in Section 4.11, Noise, the Project would not generate substantial temporary or permanent increase in ambient noise levels, with the exception of traffic noise level increases along a non-sensitive roadway segment: Cactus Avenue east of Meridian Parkway (Segment #13). Therefore, the Project would have a significant and unavoidable noise impact and no feasible mitigation measures are available to reduce Project-related significant traffic noise increases along Segment #13. All other noise and vibration impacts associated with construction and operation of the Project would be less than significant.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, Alternative 2's noise impacts would be similar but reduced compared to the proposed Project; however, as shown

in the attached Appendix R to this EIR, even with a smaller scale development, the incremental noise level increase at Segment #13 would exceed the established threshold through Opening Year (2028). Alternative 2's incremental noise level increase would be less than significant by Horizon Year (2045). Overall, Alternative 2 would still result in significant noise impacts along Segment #13. Therefore, Alternative 2 would have a significant and unavoidable noise impact and no feasible mitigation measures are available to reduce Alternative 2's significant traffic noise increases along Segment #13. All other noise and vibration impacts associated with construction and operation of Alternative 2 would be less than significant. In summary, given Alternative 2's smaller development footprint and corresponding reduction in total trips, Alternative 2 would have ***fewer noise impacts*** compared to the proposed Project but would still result in ***significant and unavoidable noise*** impacts.

Population and Housing

As discussed in Section 4.12, Population and Housing, Under the buildout scenario, it is anticipated that the Project would employ approximately 2,600 full-time employees. Based on the County's unemployment rate, this EIR assumes that the Project's employees will be primarily existing residents of Riverside County. The anticipated number of jobs generated by the Project would be a nominal addition to the County's existing and projected labor force. Thus, the employment growth that would be attributed to the Project is consistent with SCAG's overall growth projections and would not result in a substantial increase of unplanned population growth. Therefore, the Project would have a less than significant impact related to population and housing and no mitigation is required.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park, which would have employed approximately 240 employees, would not be developed and would be designated Open Space. Alternative 2 would employ approximately 9% fewer employees compared to the proposed Project. Therefore, Alternative 2 would have ***fewer population and housing impacts*** compared to the proposed Project.

Public Services

As discussed in Section 4.13, Public Services, with the implementation of **MM-FIRE-1**, the Project's impacts to fire services would be reduced to less than significant. The Project's impacts to police services, schools, parks and other public facilities would be less than significant and no mitigation is required.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint and reduced workforce, Alternative 2's impacts on public services would be similar but reduced compared to the proposed Project but would still be potentially significant. With the implementation of **MM-FIRE-1**, Alternative 2's impacts to fire services would be reduced to less than significant. Alternative 2's impacts to police services, schools, parks and other public facilities would be less than significant and no mitigation is required. In summary, Alternative 2 would have ***fewer impacts to public services*** compared to the proposed Project.

Recreation

As discussed in Section 4.14, Recreation, it is likely that the majority of the Campus Development's future employees are already residents of the nearby communities and are already using the local parks and recreational facilities. There could be an increase in demand for recreational facilities but because the Project's employees and surrounding neighborhoods would have access to the proposed 60.28-acre Park, any increased demand would not

result in the need to construct additional recreational facilities under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The impacts related to the Park's construction have been included in all of the analyses in this Draft EIR. Additionally, the currently existing service roads within the Conservation Easement, as depicted by the red lines on Figure 3-4, would continue to be utilized by the public for passive recreation as authorized by the March JPA, consistent with the terms of the CBD Settlement Agreement (Appendix S). Therefore, the Project would result in less than significant impacts to recreational facilities and no mitigation is required.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint and reduced workforce, Alternative 2's impacts on recreation would be similar but reduced compared to the proposed Project. Alternative 2 would result in a reduced demand on recreational resources compared to the proposed Project. Therefore, Alternative 2 would have ***fewer recreational impacts*** compared to the proposed Project.

Transportation

As discussed in Section 4.15, Transportation, with the incorporation of **MM-TRA-1** (Construction Traffic Management Plan), Project construction impacts on the circulation system would be reduced to less than significant. With implementation of **MM-TRA-2** (Traffic Safety Plan for Barton Street) the Project's operational impacts on the circulation system would be less than significant. The Specific Plan Area's impact on VMT would be less than significant. Although the Specific Plan Area is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires the Project to provide funding for the installation of a bus shelter on Alessandro Boulevard. The Project's potential to increase hazards due to design features or incompatible uses would be reduced to less than significant with implementation of **MM-TRA-1** and **MM-TRA-2**.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given that Alternative 2 would result in a 70% reduction in square footage to the Business Park land use, excluding the Business Park square footage associated with the Mixed Use area, the total non-Mixed Use Business Park square footage under Alternative 2 would be reduced to 384,121 square feet. This constitutes a reduction of 896,282 square feet from the Traffic Study prepared for the proposed Project. As shown in Table 6-4, Alternative 2 would generate a total of 1,263 AM peak hour trips, 2,237 PM peak hour trips, and a daily total of 24,728 trips.

Table 6-4. Alternative 2 Trip Generation Summary

Land Use	Quantity Units	AM Peak Hour			PM Peak Hour			Week-day Daily	Saturday Peak Hour		
		In	*Out*	*Total*	*In*	*Out*	*Total*		*In*	*Out*	*Total*
Building B: High-Cube Fulfillment	1,250.000 TSF	—	—	—	—	—	—	—	—	—	—
Passenger Cars	—	99	30	129	50	130	180	2188	5	3	8
Trucks	—	18	5	23	7	19	26	474	1	0	1
Total Trips	**—**	**117**	**35**	**152**	**57**	**149**	**206**	**2662**	**6**	**3**	**9**
Building C: High-Cube Fulfillment	587.000 TSF	—	—	—	—	—	—	—	—	—	—
Passenger Cars	—	47	14	61	24	61	85	1028	2	1	3
Trucks	—	9	3	12	3	9	12	222	0	0	0
Total Trips	**—**	**56**	**17**	**73**	**27**	**70**	**97**	**1250**	**2**	**1**	**3**
High-Cube Cold Storage Warehouse	500.000 TSF	—	—	—	—	—	—	—	—	—	—
Passenger Cars	—	38	2	40	10	36	46	686	1	1	2
Trucks	—	5	11	16	8	8	16	376	0	0	0
Total Trips	**—**	**43**	**13**	**56**	**18**	**44**	**62**	**1062**	**1**	**1**	**2**
Remaining Industrial: High-Cube Fulfillment	725.561 TSF	—	—	—	—	—	—	—	—	—	—
Passenger Cars	—	58	17	75	29	75	104	1270	3	2	5
Trucks	—	11	3	14	4	11	15	276	0	0	0
Total Trips	**—**	**59**	**20**	**89**	**33**	**86**	**119**	**1546**	**3**	**2**	**5**
Business Park	384.121 TSF	—	—	—	—	—	—	—	—	—	—
Office Cars	97.236 TSF	122	22	144	22	110	132	968	28	24	52
Office Cars	18.000 TSF	28	5	34	6	27	33	224	5	4	9
Business Park Warehouse	268.885 TSF	—	—	—	—	—	—	—	—	—	—
Warehouse Cars	—	21	5	26	70	247	317	3192	7	4	11
Warehouse Trucks	—	9	2	11	2	8	10	154	2	1	3

Table 6-4. Alternative 2 Trip Generation Summary

Land Use	Quantity Units	AM Peak Hour			PM Peak Hour			Week-day Daily	Saturday Peak Hour		
		In	*Out*	*Total*	*In*	*Out*	*Total*		*In*	*Out*	*Total*
Business Park (Mixed Use, 75%)	482.765 TSF	—	—	—	—	—	—	—	—	—	—
Office Cars	144.830 TSF	203	36	239	39	187	226	1602	41	35	76
Business Park Warehouse	337.936 TSF	—	—	—	—	—	—	—	—	—	—
Warehouse Cars	—	26	6	32	88	311	399	4012	9	5	14
Warehouse Trucks	—	11	3	14	3	11	14	194	2	1	3
Total Business Park Trips	**—**	**420**	**79**	**500**	**230**	**901**	**1131**	**10346**	**94**	**74**	**168**
Retail (Mixed Use, 25%)	160.921 TSF	—	—	—	—	—	—	—	—	—	—
Cars	—	173	106	279	409	426	835	10866	760	730	1490
Pass-by-Reduction	—	0	0	0	-164	-164	-327	-4348	-304	-292	-596
Total Retail Trips	**—**	**173**	**106**	**279**	**245**	**262**	**508**	**6518**	**456**	**438**	**894**
Active Park	42.20 AC	137	137	274	95	95	190	2110	187	203	390
Public Park	18.08 AC	6	6	12	4	4	8	90	19	20	39
Total Park Trips	**—**	**143**	**143**	**286**	**99**	**99**	**198**	**2200**	**206**	**223**	**429**
Total Passenger Cars	—	958	386	1345	682	1545	2228	23888	763	740	1503
Internal Trip Reduction	—	-86	-86	-172	-42	-42	-84	-856	-21	-21	-42
Total Trucks	—	63	27	90	27	66	93	1696	5	2	7
Alternative 2 Total Trips	**—**	**935**	**327**	**1263**	**667**	**1569**	**2237**	**24728**	**747**	**721**	**1468**

Source: Appendix R.

When comparing the trip generation rates between Alternative 2 and the proposed Project, as shown in Table 6-5, Alternative 2 would result in a trip reduction of 10,586 trips.

Table 6-5. Alternative 2 Trip Generation Comparison

Project	AM Peak Hour			PM Peak Hour			Weekday Daily	Saturday Peak Hour		
	In	*Out*	*Total*	*In*	*Out*	*Total*		*In*	*Out*	*Total*
Project Traffic Study	1353	408	1761	902	2486	3389	35314	844	798	1642
Alternative 2	935	327	1263	667	1569	2237	24728	747	721	1468
Comparison	**-418**	**-81**	**-498**	**-235**	**-917**	**-1152**	**-10586**	**-97**	**-77**	**-174**

Source: Appendix R.

As with the proposed Project, with the incorporation of **MM-TRA-1**, Alternative 2 construction impacts on the circulation system would be reduced to less than significant. With implementation of **MM-TRA-2**, Alternative 2's operational impacts on the circulation system would be less than significant. Alternative 2's impact on VMT would be less than significant. Although Alternative 2 is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires Alternative 2 to provide funding for the installation of a bus shelter on Alessandro Boulevard. Alternative 2's potential to increase hazards due to design features or incompatible uses would be reduced to less than significant with implementation of **MM-TRA-1** and **MM-TRA-2**. During construction, fewer construction worker vehicle and equipment trips would be generated because less construction activities would occur. Because of the smaller development footprint, there would also be a reduction in employee trips during operation of the Alternative 2. Therefore, Alternative 2 would have ***fewer transportation impacts*** compared to the proposed Project.

Tribal Cultural Resources

As discussed in Section 4.16, Tribal Cultural Resources, implementation of the proposed Project would result in potentially significant impacts to tribal cultural resources. However, even with implementation of **MM-CUL-1** through **MM-CUL-8**, the Project's impacts to tribal cultural resources would remain *significant and unavoidable*.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint, impacts to tribal cultural resources under Alternative 2 would be similar but reduced compared to the proposed Project, but would still be potentially significant. Even with the incorporation of **MM-CUL-1** through **MM-CUL-8**, Alternative 2's impacts to tribal cultural resources would be significant and unavoidable. No new buildings and/or grading would be introduced on the 45.34 acres. Without grading on this portion of the Project site, there is less likelihood of encountering previously unidentified tribal cultural resources. In summary, implementation of Alternative 2 may result in ***fewer tribal cultural resources impacts*** when compared to the proposed Project but would still be **significant and unavoidable**.

Utilities and Service Systems

As discussed in Section 4.17, Utilities and Service Systems, the Project would have less than significant impacts to facilities providing water, wastewater, storm water, electric power, natural gas, and telecommunications. There are

sufficient water supplies available and wastewater treatment capacity to serve the Project, resulting in less than significant impacts. The Project would have a less than significant impact on solid waste infrastructure and capacity and would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, the Project impacts to utilities and service systems would be less than significant and no mitigation is required.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint and reduced workforce, Alternative 2's operational activities would be less intense and therefore introduce fewer employees and a reduced demand for water, wastewater, electric power, telecommunications infrastructure, and solid waste services when compared to the proposed Project. Alternative 2 would have ***fewer impacts to utilities and service systems*** compared to the proposed Project.

Wildfire

As discussed in Section 4.18, Wildfire, the Project site is near lands classified as Very High Fire Hazard Severity Zone (FHSZ) and implementation of the proposed Project would result in potentially significant wildfire impacts. However, with implementation of **MM-FIRE-1** through **MM-FIRE-3**, as well as **MM-HYD-3**, the Project's potential to facilitate wildfire spread, exacerbate wildfire risk, or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes would be reduced to less than significant levels.

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park would not be developed and would be designated Open Space, resulting in a corresponding reduction in workforce and total trips. Given Alternative 2's smaller development footprint and reduced workforce, Alternative 2's wildfire impacts would be similar but reduced compared to the proposed Project but would still be potentially significant. With implementation of **MM-FIRE-1** through **MM-FIRE-3**, as well as **MM-HYD-3**, Alternative 2's potential to facilitate wildfire spread, exacerbate wildfire risk, or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes would be reduced to less than significant levels. The 45.34 acres of open space would serve as additional buffer area between to the Specific Plan Area and Conservation Easement. Therefore, Alternative 2 would have ***reduced wildfire impacts*** compared to the proposed Project.

6.4.3.2 Project Objectives

Under Alternative 2, the Specific Plan Area would be built out in the same manner as the proposed Project; however, 45.34 acres of Business Park (approximately 70% of the Project's Business Park area) would be designated Open Space instead, resulting in a corresponding reduction in workforce and total trips. As shown in Table 6-6, Alternative 2 meets each Project objective.

Table 6-6. Summary of Alternative 2 Success at Meeting Project Objectives

Project Objective	Does Alternative 2 Meet Objective?
1. Provide increased job opportunities for residents through the provision of employment-generating businesses.	**Yes**. Alternative 2 would provide increased job opportunities through the provision of employment-generating businesses. Alternative 2 would achieve this objective to a lesser extent than the Project.
2. Provide open space amenities to serve the region.	**Yes**. Alternative 2 would provide open space amenities to serve the region. Alternative 2 would achieve this objective to a greater extent than the Project.
3. Provide an active park consistent with the 2009 Safety Study prepared by March JPA.	**Yes**. Alternative 2 would provide the same 60.28-acre Park as the proposed Project. Alternative 2 would fully achieve this Project objective.
4. Complete the buildout of the roadway infrastructure by extending Cactus Avenue to the Specific Plan Area from its existing terminus, extending Barton Street from Alessandro Boulevard to Grove Community Drive, and extending Brown Street from Alessandro Boulevard to Cactus Avenue.	**Yes**. Alternative 2 would provide all the same roadway infrastructure as the proposed Project. As such, Alternative 2 would fully achieve this Project objective.
5. Remove and redevelop a majority of the former munitions storage area of the March AFB.	**Yes**. Alternative 2 would remove and redevelop a majority of the former munitions storage area. As such, Alternative 2 would fully achieve this Project objective.
6. Encourage the use of alternative modes of transportation through the provision of a pedestrian and bicycle circulation system, which is both safe and comfortable.	**Yes**. Under Alternative 2, the buildout would include the provision of new roadways that could accommodate all modes of travel, including pedestrian and bicycle movement.
7. Implement the terms and conditions agreed upon in the September 12, 2012, Settlement Agreement entered into between and among the CBD, the San Bernardino Valley Audubon Society, March JPA, and LNR Riverside LLC, as the complete settlement of the claims and actions raised in *Center for Biological Diversity v. Jim Bartel, et al.* to preserve open space through establishing a Conservation Easement.	**Yes**. Alternative 2 would place the Conservation Easement under a conservation easement. As such, Alternative 2 would fully achieve this Project objective.

6.4.4 Alternative 3 – Restricted Industrial Building Size Alternative

Under Alternative 3, Restricted Industrial Building Size Alternative, the development of the 56.27-acre Industrial parcel to the north of Building B would be restricted to a minimum of two separate industrial buildings with a maximum floor area ratio (FAR) of 0.40. Under the Project's proposed Specific Plan, the Industrial zone would have a maximum FAR of 0.50. Therefore, under the proposed Project, the 56.27-acre Industrial parcel could be developed with a single industrial building totaling 1,225,000 square feet. However, under Alternative 3, a two-building layout on 56.27 acres with a 0.40 FAR would result in two buildings, each being 490,225 square feet. Therefore, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development

(approximately 20% of the potential industrial development for the 56.27-acre Industrial parcel). Alternative 3's reduced industrial development would result in an approximately 6% workforce reduction (2,450 employees) and 1.5% reduction in total trips (34,792 trips). Land use acreages under Alternative 3 would be the same as the proposed Project (Table 6-7).

Table 6-7. Alternative 3 Buildout Land Uses

Use	Alternative 3 (acres)	Proposed Project (acres)	Alternative 3 vs. Proposed Project (acres)
Specific Plan Area			
Business Park	65.32	65.32	0
Industrial	143.31	143.31	0
Mixed Use	42.22	42.22	0
Public Facility	2.84	2.84	0
Open Space	78	78	0
Streets	37.91	37.91	0
Subtotal	369.60	369.60	0
Conservation Easement			
Open Space	445.43	445.43	0
Existing WMWD Water Tank			
Public Facility	2.87	2.87	0
Total Net Acres	**817.90**	**817.90**	**0**

6.4.4.1 Environmental Analysis

Aesthetics

As discussed in Section 4.1, Aesthetics, implementation of the proposed Project would not have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of public views of the site and its surroundings with implementation of **MM-AES-1** (Construction Equipment Staging and Screening). Impacts would be less than significant, and no mitigation is required. With the implementation of **MM-AES-2** (Exterior Lighting Point-by-point Photometric Study Approval) and **MM-AES-3** (Solar Photovoltaic System Approval), the Project's impacts as a new source of substantial light or glare would be reduced to less than significant with mitigation incorporated.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Although Alternative 3 reduces industrial development, Alternative 3's potential impacts to scenic vistas, existing visual character and quality of public views would be similar to the proposed Project because the 56.27-acre Industrial parcel is centrally located within the Campus Development and would be screened by the surrounding Business Park, Mixed Use, and Industrial development. Alternative 3 would have a less than significant impact on a scenic vista, the existing visual character, and the quality of public views of the site and its surroundings with implementation of **MM-AES-1**. Alternative 3 would likely introduce a similar number of new sources of substantial light or glare than the Project and would still require implementation of **MM-AES-2** and **MM-AES-3** to reduce Alternative 3's light and glare impacts to less than

significant. In summary, notwithstanding Alternative 3's reduced industrial development, Alternative 3 would result in ***similar aesthetic impacts*** compared to the proposed Project.

Air Quality

As discussed in Section 4.2, Air Quality, implementation of the proposed Project would result in potentially significant air quality impacts. With implementation of **MM-AQ-1**, the Specific Plan Area's construction air quality impacts would be reduced to less than significant levels. The Specific Plan Area's daily regional emissions from operations would exceed the SCAQMD thresholds of significance for emissions of VOCs, NO_X, CO, and PM_{10} and would, therefore, per SCAQMD criteria, be cumulatively potentially significant and mitigation is required. **MM-AQ-2** through **MM-AQ-15** are designed to reduce Specific Plan Area operational-source VOCs, NO_X, CO, and PM_{10} emissions. There is no way to meaningfully quantify these reductions in CalEEMod, and therefore no numeric emissions credit has been taken in the analysis. As such, even with application of **MM-AQ-2** through **MM-AQ-15**, Specific Plan Area operational-source emissions impacts would be significant and unavoidable. Since Specific Plan Area operations would exceed the SCAQMD thresholds of significance, the Project would also conflict with the AQMP, an additional significant and unavoidable impact. The construction and operation of the Specific Plan Area would not exceed applicable LST, CO hotspot, or HRA thresholds and impacts would be less than significant. The Specific Plan Area's odor and other emissions impacts would be less than significant.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's reduced industrial development, construction and operations emissions under Alternative 3 would be similar but reduced compared to the proposed Project but would still be potentially significant. With implementation of **MM-AQ-1**, Alternative 3's construction air quality impacts would be reduced to less than significant levels. Under Alternative 3, operational activities would be less intense than those associated with the proposed Project, thereby resulting in fewer vehicle trips and associated air emissions. However, Alternative 3's reduced development and vehicle trips would not reduce operational air emissions to levels below the SCAQMD thresholds of significance for emissions of VOCs, NO_X, CO, and PM_{10}. Even with application of **MM-AQ-2** through **MM-AQ-15**, Alternative 3 operational-source emissions impacts would be significant and unavoidable. Since Alternative 3 operations would exceed the SCAQMD thresholds of significance, Alternative 3 would also conflict with the AQMP, an additional significant and unavoidable impact. The construction and operation of Alternative 3 would not exceed applicable LST, CO hotspot, or HRA thresholds and impacts would be less than significant. Similar to the Project, Alternative 3's odor and other emissions impacts would be less than significant. In summary, Alternative 3 would result in ***fewer air quality impacts*** compared to the Project but would still result in ***significant and unavoidable*** air quality impacts.

Biological Resources

As discussed in Section 4.3, Biological Resources, implementation of the proposed Project would result in potentially significant biological impacts. The Specific Plan Area's effect on special status plant and wildlife species, direct impacts on burrowing owl, San Diego black tailed jackrabbit, coastal whiptail, orange-throated whiptail, and western yellow bat, Cooper's hawk, yellow warbler, and California horned lark and indirect impacts on Least Bell's Vireo and Stephens' Kangaroo Rat, would be reduced to less than significant with the implementation of **MM-BIO-1** (Best Management Practices), **MM-BIO-2** (Least Bell's Vireo), **MM-BIO-3** (Operation-Related Indirect Impacts to Special-Status Wildlife), **MM-BIO-4** (Stephens' Kangaroo Rat Avoidance), **MM-BIO-5A** (Burrowing Owl Avoidance and Mitigation Measures)/**MM-BIO-5B** (Burrowing Owl Relocation and Mitigation Plan), **MM-BIO-6** (San Diego Black-Tailed Jackrabbit), and **MM-BIO-7** (Nesting Bird Avoidance and Minimization Measures). The Specific Plan Area's

effect on riparian habitat or other sensitive natural communities would be reduced to less than significant with implementation of **MM-BIO-8** (Upland Vegetation Communities) and **MM-BIO-9** (Aquatic Resources Mitigation). The Specific Plan Area's effect on state or federally protected wetlands would be reduced to less than significant with implementation of **MM-BIO-9**. The Specific Plan would have less than significant impacts to the movement of fish/wildlife, wildlife corridors, or native wildlife nursery sites. The Specific Plan's conflicts with local policies/ordinances protecting biological resources would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-9**. The Specific Plan's conflicts with an adopted HCP or other conservation plan would be reduced to less than significant with implementation of **MM-BIO-4, MM-BIO-5A/ MM-BIO-5B, MM-BIO-6,** and **MM-BIO-9**. As such, with implementation of **MM-BIO-1** through **MM-BIO-9**, the Project's impacts to biological resources would be reduced to less than significant levels.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Since Alternative 3 has the same development footprint as the proposed Project, impacts to biological resources under Alternative 3 would be similar compared to the proposed Project, and would be potentially significant. Alternative 3's effect on special status plant and wildlife species, direct impacts on burrowing owl, San Diego black tailed jackrabbit, coastal whiptail, orange-throated whiptail, and western yellow bat, Cooper's hawk, yellow warbler, and California horned lark and indirect impacts on Least Bell's Vireo and Stephens' Kangaroo Rat, would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-7**. Alternative 3's effect on riparian habitat or other sensitive natural communities would be reduced to less than significant with implementation of **MM-BIO-8** and **MM-BIO-9**. Alternative 3's effect on state or federally protected wetlands would be reduced to less than significant with implementation of **MM-BIO-9**. Alternative 3 would have less than significant impacts to the movement of fish/wildlife, wildlife corridors, or native wildlife nursery sites. Alternative 3's conflicts with local policies/ordinances protecting biological resources would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-9**. Alternative 3's conflicts with an adopted HCP or other conservation plan would be reduced to less than significant with implementation of **MM-BIO-4, MM-BIO-5A/MM-BIO-5B, MM-BIO-6,** and **MM-BIO-9**. In summary, notwithstanding Alternative 3's reduced industrial development, Alternative 3 would have ***similar biological resources impacts*** compared to the proposed Project.

Cultural Resources

As discussed in Section 4.4, Cultural Resources, implementation of the proposed Project would result in potentially significant impacts to cultural resources. However, even with the incorporation of **MM-CUL-1** through **MM-CUL-8**, the Project's impacts associated with historical and archaeological resources would be significant and unavoidable. With implementation of **MM-CUL-9**, impacts to human remains would be less than significant.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Since Alternative 3 has the same development footprint as the proposed Project, impacts to cultural resources under Alternative 3 would be similar compared to the proposed Project, and would be potentially significant. Even with the incorporation of **MM-CUL-1** through **MM-CUL-8**, Alternative 3's impacts to historical and archaeological resources would be *significant and unavoidable*. With implementation of **MM-CUL-9**, Alternative 3's impacts to human remains would be *less than significant*. In summary, notwithstanding Alternative 3's reduced industrial development, Alternative 3 would have ***similar cultural resources impacts*** compared to the proposed Project and would result in ***significant and unavoidable*** impacts to historical and archaeological resources.

Energy

As discussed in Section 4.5, Energy, construction and operation of the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy or conflict with or obstruct a state or local plan for renewable energy or energy efficiency with the incorporation of **MM-GHG-1** through **MM-GHG-11**. These mitigation measures reduce the Project's energy impacts to less than significant.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's reduced industrial development, Alternative 3 would consume less energy compared to the proposed Project. With the incorporation of **MM-GHG-1** through **MM-GHG-11**, Alternative 3's energy impacts would be less than significant. In summary, given Alternative 3's reduced industrial development, Alternative 3 would have ***fewer energy impacts*** compared to the proposed Project.

Geology and Soils

As discussed in Section 4.6, Geology and Soils, implementation of the proposed Project would result in potentially significant impacts to geology and soils. The Specific Plan Area would have less than significant impacts with regard to strong seismic ground shaking, seismic-related ground failure, and expansive soils. With the implementation of **MM-GEO-1** (Slope Stability), the Project's impacts related to landslides and unstable soil would be reduced to less than significant. The Specific Plan Area's impacts to paleontological resources and site or unique geologic features would be reduced to less than significant with incorporation of **MM-GEO-2** (Paleontological Resources).

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Since Alternative 3 has the same development footprint as the proposed Project, Alternative 3's impacts to geology and soils would be similar compared to the proposed Project and would be potentially significant. Alternative 3 would have less than significant impacts with regard to strong seismic ground shaking, seismic-related ground failure, and expansive soils. With the implementation of **MM-GEO-1**, Alternative 3's impacts related to landslides and unstable soil would be reduced to less than significant. Alternative 3's impacts to paleontological resources and site or unique geologic features would be reduced to less than significant with incorporation of **MM-GEO-2**. In summary, notwithstanding Alternative 3's reduced industrial development, Alternative 3 would have ***similar impacts to geology and soils*** compared to the proposed Project.

Greenhouse Gas Emissions

As discussed in Section 4.7, Greenhouse Gas Emissions, implementation of the proposed Project would result in potentially significant GHG impacts because it could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. However, with implementation of **MM-GHG-1** through **MM-GHG-11**, the Project would be consistent with the applicable plans, and GHG impacts would be reduced to less than significant levels. Additionally, the Project would not conflict with any of the Senate Bill 32/2017 Scoping Plan elements since any regulations adopted would apply directly or indirectly to the Project. Furthermore, the proposed Project represents 0.90% of the anticipated increase in jobs for the WRCOG region, and therefore, would not result in long-term operational employment growth that exceeds planned growth projections in the RTP/SCS or an Air Quality Management Plan, or result in employment growth that would substantially add to traffic congestion.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's reduced industrial development, Alternative 3's GHG emissions impacts would be similar but reduced compared to the proposed Project but would still be potentially significant because Alternative 3 could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. With implementation of **MM-GHG-1** through **MM-GHG-11**, Alternative 3 would be consistent with the applicable plans, and GHG impacts would be reduced to less than significant levels. In summary, given Alternative 3's reduced industrial development, Alternative 3 would have ***fewer GHG impacts*** compared to the proposed Project.

Hazards and Hazardous Materials

As discussed in Section 4.8, Hazards and Hazardous Materials, implementation of the proposed Project would result in potentially significant hazard and hazardous materials impacts. During construction of the Specific Plan Area, implementation of **MM-HAZ-1** would reduce the Project's impacts involving the routine transport, use, or disposal of hazardous materials. During operations, the Project would have a less than significant impact with regards to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. Given the proximity of the neighboring preschool at Community Grove Church, **MM-HAZ-2** is required to reduce potentially significant impacts associated with Project uses emitting and/or handling hazardous materials within one-quarter mile of an existing or planned school. With implementation of **MM-HAZ-3**, the Project's proximity to March ARB/Inland Port Airport would not result in a safety hazard or excessive noise for people residing or working in the Project area. **MM-FIRE-1** would reduce the Project's impacts involving wildland fires. With implementation of **MM-HAZ-1, MM-HAZ-2**, **MM-HAZ-3**, and **MM-FIRE-1,** the Project's hazards and hazardous materials impacts would be reduced to less than significant levels.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's reduced industrial development, Alternative 3's impacts related to hazards and hazardous materials would be similar but reduced compared to the proposed Project but would still be potentially significant. During Alternative 3 construction, implementation of **MM-HAZ-1** would reduce Alternative 3's impacts involving the routine transport, use, or disposal of hazardous materials. During operations, Alternative 3 would have a less than significant impact with regards to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. The development footprint under Alternative 3 would still introduce new uses within proximity of the preschool, and as such, **MM-HAZ-2** would still be required under Alternative 3. With implementation of **MM-HAZ-3**, Alternative 3's proximity to March ARB/Inland Port Airport would not result in a safety hazard or excessive noise for people residing or working in the Project area. **MM-FIRE-1** would reduce Alternative 3's impacts involving wildland fires to *less than significant* levels. In summary, given Alternative 3's reduced industrial development, Alternative 3 would have ***fewer impacts related to hazards and hazardous materials*** compared to the proposed Project.

Hydrology and Water Quality

As discussed in Section 4.9, Hydrology and Water Quality, implementation of the proposed Project would result in potentially significant impacts to hydrology and water quality. With implementation of **MM-HYD-1** (Interim Soil Stabilization Plan) and **MM-HYD-2** (Water Quality Management Plan), the Project's impacts to surface or groundwater quality would be reduced to less than significant levels. In addition, implementation of the Storm Water Pollution Prevention Plan (SWPPP) in conformance with the Construction General Permit would reduce potential

discharge of polluted runoff from construction sites. Further, Project design features would ensure that post-construction runoff velocities would be less than existing conditions and would not substantially alter the existing drainage pattern of the site or area. The Project's impacts to groundwater supplies and recharge would be less than significant. With implementation of **MM-HYD-3** (Hydrology/Drainage Study), the Project's impacts related to on- or off-site erosion or siltation and runoff water would be reduced to less than significant. Further the Project would have a less than significant impact related to risk releasing of pollutants due to inundation, impeding or redirecting flood flows, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Since Alternative 3 has the same development footprint as the proposed Project, Alternative 3's impacts to hydrology and water quality would be similar compared to the proposed Project and would be potentially significant. With implementation of **MM-HYD-1** and **MM-HYD-2**, Alternative 3's impacts to surface or groundwater quality would be reduced to less than significant levels. In addition, implementation of the SWPPP in conformance with the Construction General Permit would reduce potential discharge of polluted runoff from construction sites. Further, Project design features would ensure that post-construction runoff velocities would be less than existing conditions and would not substantially alter the existing drainage pattern of the site or area. Alternative 3's impacts to groundwater supplies and recharge would be less than significant. With implementation of **MM-HYD-3,** Alternative 3's impacts related to on- or off-site erosion or siltation and runoff water would be reduced to less than significant. Further, Alternative 3 would have a less than significant impact related to risk releasing of pollutants due to inundation, impeding or redirecting flood flows, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan. In summary, notwithstanding Alternative 3's reduced industrial development, Alternative 3 would have ***similar impacts to hydrology and water quality*** compared to the proposed Project.

Land Use and Planning

As discussed in Section 4.10, Land Use and Planning, with implementation of **MM-AQ-1** through **MM-AQ-15, MM-BIO-1** through **MM-BIO-9**, **MM-CUL-1** through **MM-CUL-9**, **MM-GEO-1, MM-GEO-2, MM-GHG-1** through **MM-GHG-11, MM-HAZ-1** through **MM-HAZ-3, MM-HYD-1** through **MM-HYD-3, MM-TRA-1** and **MM-TRA-2**, and **MM-FIRE-1** through **MM-FIRE-3,** the Project would be consistent or partially consistent with the March JPA General Plan Goals. March JPA designates the Project site as Business Park (BP), Industrial (IND), and Park/Recreation/Open Space (P/R/OS) land uses in the March JPA General Plan. The Project site has not previously been given a zoning designation by March JPA; therefore, the Project proposes zoning consistent with the proposed General Plan Amendment and Specific Plan designations of Mixed Use, Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facility for the site. The Project proposes adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13. The Project would be consistent with the March Development Code and the Riverside County ALUCP. Furthermore, the proposed Project would implement the guiding principles, goals, and policies of SCAG's Connect SoCal. As such, with incorporation of mitigation, the Project would result in less than significant land use impacts through conflicts with plans adopted for the purpose of avoiding or mitigating an environmental effect.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's reduced industrial development, Alternative 3's land use and planning impacts would be similar but reduced compared to the

proposed Project. With implementation of **MM-AQ-1** through **MM-AQ-15, MM-BIO-1** through **MM-BIO-9**, **MM-CUL-1** through **MM-CUL-9**, **MM-GEO-1, MM-GEO-2, MM-GHG-1** through **MM-GHG-11, MM-HAZ-1** through **MM-HAZ-3, MM-HYD-1** through **MM-HYD-3, MM-TRA-1** and **MM-TRA-2**, and **MM-FIRE-1** through **MM-FIRE-3,** Alternative 3 would be consistent or partially consistent with the March JPA General Plan Goals. Similar to the proposed Project, Alternative 3 would propose zoning consistent with the proposed General Plan Amendment and Specific Plan designations of Mixed Use, Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facility for the site. Alternative 3 would also propose adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13. Alternative 3 would be consistent with the March Development Code and the Riverside County ALUCP. Alternative 3 would be consistent with the guiding principles, goals, and policies of SCAG's Connect SoCal. In summary, given Alternative 3's reduced industrial development, Alternative 3 would result in less than significant land use and planning impacts and have ***fewer land use and planning impacts*** compared to the proposed Project.

Noise

As discussed in Section 4.11, Noise, the Project would not generate substantial temporary or permanent increase in ambient noise levels, with the exception of traffic noise level increases along a non-sensitive roadway segment: Cactus Avenue east of Meridian Parkway (Segment #13). Therefore, the Project would have a significant and unavoidable noise impact and no feasible mitigation measures are available to reduce Project-related significant traffic noise increases along Segment #13. All other noise and vibration impacts associated with construction and operation of the Project would be less than significant.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. As construction and grading activities would be nearly the same under Alternative 3, noise levels would be similar to those of the proposed Project during construction. Given Alternative 3's reduced industrial development, Alternative 3's operational noise impacts would be similar but reduced compared to the proposed Project; however, as shown in the attached Appendix R to this EIR, even with a smaller scale development, the incremental noise level increase at Segment #13 would exceed the established threshold. As such, Alternative 3 would still result in significant noise impacts along Segment #13. Therefore, Alternative 3 would have a significant and unavoidable noise impact and no feasible mitigation measures are available to reduce Alternative 3's significant traffic noise increases along Segment #13. All other noise and vibration impacts associated with construction and operation of Alternative 3 would be less than significant. In summary, given Alternative 3's reduced industrial development, Alternative 3 would have ***fewer noise impacts*** compared to the proposed Project, but would still result in ***significant and unavoidable noise*** impacts.

Population and Housing

As discussed in Section 4.12, Population and Housing, Under the buildout scenario, it is anticipated that the Project would employ approximately 2,600 full-time employees. Based on the County's unemployment rate, this EIR assumes that the Project's employees will be primarily existing residents of Riverside County. The anticipated number of jobs generated by the Project would be a nominal addition to the County's existing and projected labor force. Thus, the employment growth that would be attributed to the Project is consistent with SCAG's overall growth projections and would not result in a substantial increase of unplanned population growth. Therefore, the Project would have a less than significant impact related to population and housing and no mitigation is required.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Alternative 3 would employ approximately 6% fewer employees compared to the proposed Project. Therefore, Alternative 3 would have ***fewer population and housing impacts*** compared to the proposed Project.

Public Services

As discussed in Section 4.13, Public Services, with the implementation of **MM-FIRE-1**, the Project's impacts to fire services would be reduced to less than significant. The Project's impacts to police services, schools, parks and other public facilities would be less than significant and no mitigation is required.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's reduced industrial development and reduced workforce, Alternative 3's impacts on public services would be similar but reduced compared to the proposed Project but would still be potentially significant. With the implementation of **MM-FIRE-1**, Alternative 3's impacts to fire services would be reduced to less than significant. Alternative 3's impacts to police services, schools, parks and other public facilities would be less than significant and no mitigation is required. In summary, Alternative 3 would have ***fewer impacts to public services*** compared to the proposed Project.

Recreation

As discussed in Section 4.14, Recreation, it is likely that the majority of the Campus Development's future employees are already residents of the nearby communities and are already using the local parks and recreational facilities. There could be an increase in demand for recreational facilities but because the Project's employees and surrounding neighborhoods would have access to the proposed 60.28-acre Park, any increased demand would not result in the need to construct additional recreational facilities under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football, and field hockey, and trails with cardio stops for recreational users. The impacts related to the Park's construction have been included in all of the analyses in this Draft EIR. Additionally, the currently existing service roads within the Conservation Easement, as depicted by the red lines on Figure 3-4, would continue to be utilized by the public for passive recreation as authorized by the March JPA, consistent with the terms of the CBD Settlement Agreement (Appendix S). Therefore, the Project would result in less than significant impacts to recreational facilities and no mitigation is required.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's reduced industrial development and reduced workforce, Alternative 3's impacts on recreation would be similar but reduced compared to the proposed Project. Alternative 3 would result in a reduced demand on recreational resources compared to the proposed Project. Therefore, Alternative 3 would have ***fewer recreational impacts*** compared to the proposed Project.

Transportation

As discussed in Section 4.15, Transportation, with the incorporation of **MM-TRA-1** (Construction Traffic Management Plan), Project construction impacts on the circulation system would be reduced to less than significant. With

implementation of **MM-TRA-2** (Traffic Safety Plan for Barton Street), the Project's operational impacts on the circulation system would be less than significant. The Specific Plan Area's impact on VMT would be less than significant. Although the Specific Plan Area is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires the Project to provide funding for the installation of a bus shelter on Alessandro Boulevard. The Project's potential to increase hazards due to design features or incompatible uses would be reduced to less than significant with implementation of **MM-TRA-1** and **MM-TRA-2**.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project.

Given that Alternative 3 would consist of a reduction of 244,550 square feet of High-Cube Fulfillment Center use, the total High-Cube Fulfillment Center square footage for Alternative 3 would be 481,011 square feet. As shown in Table 6-8, Alternative 3 would generate a total of 1,730 AM peak hour trips, 3,349 PM peak hour trips, and a daily total of 34,792 trips.

Table 6-8. Alternative 3 Trip Generation Summary

Land Use	Quantity Units	AM Peak Hour			PM Peak Hour			Week-day Daily	Saturday Peak Hour		
		In	*Out*	*Total*	*In*	*Out*	*Total*		*In*	*Out*	*Total*
Building B: High-Cube Fulfillment	1,250.000 TSF	—	—	—	—	—	—	—	—	—	—
Passenger Cars	—	99	30	129	50	130	180	2188	5	3	8
Trucks	—	18	5	23	7	19	26	474	1	0	1
Total Trips	**—**	**117**	**35**	**152**	**57**	**149**	**206**	**2662**	**6**	**3**	**9**
Building C: High-Cube Fulfillment	587.000 TSF	—	—	—	—	—	—	—	—	—	—
Passenger Cars	—	47	14	61	24	61	85	1028	2	1	3
Trucks	—	9	3	12	3	9	12	222	0	0	0
Total Trips	**—**	**56**	**17**	**73**	**27**	**70**	**97**	**1250**	**2**	**1**	**3**
High-Cube Cold Storage Warehouse	500.000 TSF	—	—	—	—	—	—	—	—	—	—
Passenger Cars	—	38	2	40	10	36	46	686	1	1	2
Trucks	—	5	11	16	8	8	16	376	0	0	0
Total Trips	**—**	**43**	**13**	**56**	**18**	**44**	**62**	**1062**	**1**	**1**	**2**
Remaining Industrial: High-Cube Fulfillment	481.011 TSF	—	—	—	—	—	—	—	—	—	—
Passenger Cars	—	38	11	49	19	50	69	842	2	1	3
Trucks	—	7	2	9	3	7	10	182	0	0	0
Total Trips	**—**	**45**	**13**	**58**	**22**	**57**	**79**	**1024**	**2**	**1**	**3**
Business Park	1,280.403 TSF	—	—	—	—	—	—	—	—	—	—
Office Cars	324.121 TSF	405	75	480	75	366	441	3228	93	79	172
Office Cars	60.000 TSF	95	17	112	19	90	109	744	17	15	32
Business Park Warehouse	896.282 TSF	—	—	—	—	—	—	—	—	—	—
Warehouse Cars	—	69	16	85	233	825	1058	10640	41	35	79

Table 6-8. Alternative 3 Trip Generation Summary

Land Use	Quantity Units	AM Peak Hour			PM Peak Hour			Week-day Daily	Saturday Peak Hour		
		In	*Out*	*Total*	*In*	*Out*	*Total*		*In*	*Out*	*Total*
Warehouse Trucks	—	29	7	36	8	28	36	512	6	3	9
Business Park (Mixed Use, 75%)	482.765 TSF	—	—	—	—	—	—	—	—	—	—
Office Cars	144.830 TSF	203	36	239	39	187	226	1602	41	35	76
Business Park Warehouse	337.936 TSF	—	—	—	—	—	—	—	—	—	—
Warehouse Cars	—	26	6	32	88	311	399	4012	9	5	14
Warehouse Trucks	—	11	3	14	3	11	14	194	2	1	3
Total Business Park Trips	**—**	**838**	**160**	**998**	**465**	**1818**	**2283**	**20932**	**191**	**151**	**342**
Retail (Mixed Use, 25%)	160.921 TSF	—	—	—	—	—	—	—	—	—	—
Cars	—	173	106	279	409	426	835	10866	760	730	1490
Pass-by-Reduction	—	0	0	0	-164	-164	-327	-4348	-304	-292	-596
Total Retail Trips	**—**	**173**	**106**	**279**	**245**	**262**	**508**	**6518**	**456**	**438**	**894**
Active Park	42.20 AC	137	137	274	95	95	190	2110	187	203	390
Public Park	18.08 AC	6	6	12	4	4	8	90	19	20	39
Total Park Trips	**—**	**143**	**143**	**286**	**99**	**99**	**198**	**2200**	**206**	**223**	**429**
Total Passenger Cars	—	1336	456	1792	901	2417	3319	33688	855	814	1669
Internal Trip Reduction	—	-86	-86	-172	-42	-42	-84	-856	-21	-21	-42
Total Trucks	—	79	31	110	32	82	114	1960	9	4	13
Alternative 3 Total Trips	**—**	**1329**	**401**	**1730**	**891**	**2457**	**3349**	**34792**	**842**	**797**	**1640**

Source: Appendix R.

When comparing the trip generation rates between Alternative 3 and the proposed Project, as shown in Table 6-9, Alternative 3 would result in a trip reduction of 522 trips.

Table 6-9. Alternative 3 Trip Generation Comparison

Project	AM Peak Hour			PM Peak Hour			Weekday Daily	Saturday Peak Hour		
	In	*Out*	*Total*	*In*	*Out*	*Total*		*In*	*Out*	*Total*
Project Traffic Study	1353	408	1761	902	2486	3389	35314	844	798	1642
Alternative 3	1329	401	1730	891	2457	3349	34792	843	797	1640
Comparison	-24	-7	-31	-11	-29	-40	-522	-1	-1	-2

Source: Appendix R.

As with the proposed Project, with the incorporation of **MM-TRA-1**, Alternative 3 construction impacts on the circulation system would be reduced to less than significant. With implementation of **MM-TRA-2**, Alternative 3's operational impacts on the circulation system would be less than significant. Alternative 3's impact on VMT would be **less than significant**. Although Alternative 3 is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires Alternative 3 to provide funding for the installation of a bus shelter on Alessandro Boulevard. Alternative 3's potential to increase hazards due to design features or incompatible uses would be reduced to less than significant with implementation of **MM-TRA-1** and **MM-TRA-2**. During construction, fewer construction worker vehicle and equipment trips would be generated because less construction activities would occur. Because of the reduced industrial development, there would also be a reduction in employee trips during operation of the Alternative 3. Therefore, Alternative 3 would have ***fewer transportation impacts*** compared to the proposed Project.

Tribal Cultural Resources

As discussed in Section 4.16, Tribal Cultural Resources, implementation of the proposed Project would result in potentially significant impacts to tribal cultural resources. However, even with implementation of **MM-CUL-1** through **MM-CUL-8**, the Project's impacts to tribal cultural resources would remain *significant and unavoidable*.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's similar development footprint, impacts to tribal cultural resources under Alternative 3 would be similar compared to the proposed Project, and would also be potentially significant. Even with the incorporation of **MM-CUL-1** through **MM-CUL-8**, Alternative 3's impacts to tribal cultural resources would be significant and unavoidable. Therefore, implementation of Alternative 3 would result in ***similar significant and unavoidable tribal cultural resources impacts*** when compared to the proposed Project.

Utilities and Service Systems

As discussed in Section 4.17, Utilities and Service Systems, the Project would have less than significant impacts to facilities providing water, wastewater, storm water, electric power, natural gas, and telecommunications. There are sufficient water supplies available and wastewater treatment capacity to serve the Project, resulting in less than significant impacts. The Project would have a less than significant impact on solid waste infrastructure and capacity

and would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, the Project impacts to utilities and service systems would be less than significant, and no mitigation is required.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's reduced industrial development, Alternative 3's operational activities would be less intense and therefore introduce fewer employees and a reduced demand for water, wastewater, electric power, telecommunications infrastructure, and solid waste services when compared to the proposed Project. Alternative 3 would have ***fewer impacts to utilities and service systems*** compared to the proposed Project.

Wildfire

As discussed in Section 4.18, Wildfire, the Project site is near lands classified as Very High Fire Hazard Severity Zone (FHSZ) and implementation of the proposed Project would result in potentially significant wildfire impacts. However, with implementation of **MM-FIRE-1** through **MM-FIRE-3**, as well as **MM-HYD-3**, the Project's potential to facilitate wildfire spread, exacerbate wildfire risk, or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes would be reduced to less than significant levels.

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. Given Alternative 3's reduced industrial development, Alternative 3's wildfire impacts would be similar but reduced compared to the proposed Project but would still be potentially significant. With implementation of **MM-FIRE-1** through **MM-FIRE-3**, as well as **MM-HYD-3**, Alternative 3's potential to facilitate wildfire spread, exacerbate wildfire risk, or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes would be reduced to less than significant levels. Therefore, Alternative 3 would have ***reduced wildfire impacts*** compared to the proposed Project.

6.4.4.2 Project Objectives

Alternative 3 would have the same development footprint as the proposed Project; however, Alternative 3 would result in a reduction of 244,550 square feet of potential industrial development, and a corresponding reduction in workforce and vehicle trips, as compared to the proposed Project. As shown in Table 6-10, Alternative 3 meets each Project objective.

Table 6-10. Summary of Alternative 3 Success at Meeting Project Objectives

Project Objective	Does Alternative 3 Meet Objective?
1. Provide increased job opportunities for residents through the provision of employment-generating businesses.	**Yes**. Alternative 3 would provide increased job opportunities through the provision of employment-generating businesses. Alternative 3 would achieve this objective to a lesser extent than the Project.
2. Provide open space amenities to serve the region.	**Yes**. Alternative 3 would provide open space amenities to serve the region. Alternative 3 would fully achieve this Project objective.

Table 6-10. Summary of Alternative 3 Success at Meeting Project Objectives

Project Objective	Does Alternative 3 Meet Objective?
3. Provide an active park consistent with the 2009 Safety Study prepared by March JPA.	**Yes**. Alternative 3 would provide the same 60.28-acre Park as the proposed Project. Alternative 3 would fully achieve this Project objective.
4. Complete the buildout of the roadway infrastructure by extending Cactus Avenue to the Specific Plan Area from its existing terminus, extending Barton Street from Alessandro Boulevard to Grove Community Drive, and extending Brown Street from Alessandro Boulevard to Cactus Avenue.	**Yes**. Alternative 3 would provide all the same roadway infrastructure as the proposed Project. As such, Alternative 3 would fully achieve this Project objective.
5. Remove and redevelop a majority of the former munitions storage area of the March AFB.	**Yes**. Alternative 3 would remove and redevelop a majority of the former munitions storage area. As such, Alternative 3 would fully achieve this Project objective.
6. Encourage the use of alternative modes of transportation through the provision of a pedestrian and bicycle circulation system, which is both safe and comfortable.	**Yes**. Under Alternative 3, the buildout would include the provision of new roadways that could accommodate all modes of travel, including pedestrian and bicycle movement. As such, Alternative 3 would fully achieve this Project objective.
7. Implement the terms and conditions agreed upon in the September 12, 2012, Settlement Agreement entered into between and among the CBD, the San Bernardino Valley Audubon Society, March JPA, and LNR Riverside LLC, as the complete settlement of the claims and actions raised in *Center for Biological Diversity v. Jim Bartel, et al.* to preserve open space through establishing a Conservation Easement.	**Yes**. Alternative 3 would place the Conservation Easement under a conservation easement. As such, Alternative 3 would fully achieve this Project objective.

6.4.5 Alternative 4 – Reduced Cultural Resource Impact Alternative

Under Alternative 4, Barton Street would be realigned to the east to avoid a known cultural resource site that otherwise would be directly impacted under the proposed Project during construction activities. To avoid this known cultural resource, Alternative 4 would realign the portion of Barton Street that extends north from the emergency access only roadway from Cactus Avenue to the east. Realigning Barton Street to the east would result in Barton Street bisecting the proposed Mixed-Use parcels west of Airman Drive and the Business Park parcel located on the northwest corner of Arclight Drive. Therefore, Alternative 4 would result in a 1.9-acre reduction of Mixed-Use area and a 4.35-acre reduction of Business Park area compared to the proposed Project. Additionally, by realigning this portion of Barton Street, there would an increase of 2.16 acres of Open Space to the west of Barton Street compared to the proposed Project. Alternative 4 would result in a slight reduction in workforce and total trips compared to the proposed Project.

Similar to the proposed Project, Alternative 4 would construct Barton Street at its ultimate full-section width as a Collector (66-foot right-of-way, 40-foot curb-to-curb) from the existing northerly and southerly termini consistent with

the City of Riverside's Circulation Element. Once completed, the roadway will provide a connection between the existing Mission Grove community to the north and Orangecrest community to the south. The right-of-way will accommodate 6-foot sidewalks on one side with 10-foot multipurpose trail and 5 feet of landscape on the other side along with a 5-foot bike lane and a single traveled lane in each direction (of 14.5-feet). The multipurpose trail will only be accommodated for portions of Barton Street adjacent to the Park (Table 6-11).

Table 6-11. Alternative 4 Buildout Land Uses

Use	Alternative 4 (acres)	Proposed Project (acres)	Alternative 4 vs. Proposed Project (acres)
Specific Plan Area			
Business Park	60.97	65.32	-4.35
Industrial	143.31	143.31	0
Mixed Use	40.32	42.22	-1.9
Public Facility	2.84	2.84	0
Open Space	80.16	78	2.16
Streets	42	37.91	4.09
Subtotal	*369.60*	*369.60*	*0*
Conservation Easement			
Open Space	445.43	445.43	0
Existing WMWD Water Tank			
Public Facility	2.87	2.87	0
Total Net Acres	**817.90**	**817.90**	**0**

6.4.5.1 Environmental Analysis

Aesthetics

As discussed in Section 4.1, Aesthetics, implementation of the proposed Project would not have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of public views of the site and its surroundings with implementation of **MM-AES-1** (Construction Equipment Staging and Screening). Impacts would be less than significant, and no mitigation is required. With the implementation of **MM-AES-2** (Exterior Lighting Point-by-point Photometric Study Approval) and **MM-AES-3** (Solar Photovoltaic System Approval), the Project's impacts as a new source of substantial light or glare would be reduced to less than significant with mitigation incorporated.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, public views from the residential land uses to the west of the Project site would have slightly more open space than the Project. Alternative 4 would have a less than significant impact on a scenic vista, the existing visual character, and the quality of public views of the site and its surroundings with implementation of **MM-AES-1**. Given Alternative 4's slightly smaller development footprint, Alternative 4's potential impacts to scenic vistas, existing visual character and quality of public views would be similar but reduced when compared to the

proposed Project. Alternative 4 would introduce fewer new sources of substantial light or glare than the Project but would still require implementation of **MM-AES-2** and **MM-AES-3** to reduce Alternative 4's light and glare impacts to less than significant. In summary, Alternative 4 would result in ***fewer aesthetic impacts*** than the proposed Project.

Air Quality

With implementation of **MM-AQ-1**, the Specific Plan Area's construction air quality impacts would be reduced to less than significant levels. The Specific Plan Area's daily regional emissions from operations would exceed the SCAQMD thresholds of significance for emissions of VOCs, NO_X, CO, and PM_{10} and would, therefore, per SCAQMD criteria, be cumulatively potentially significant, and mitigation is required. **MM-AQ-2** through **MM-AQ-15** are designed to reduce Specific Plan Area operational-source VOCs, NO_X, CO, and PM_{10} emissions. There is no way to meaningfully quantify these reductions in CalEEMod, and therefore no numeric emissions credit has been taken in the analysis. As such, even with application of **MM-AQ-2** through **MM-AQ-15**, the Specific Plan's operational-source emissions impacts would be significant and unavoidable. Since Specific Plan operations would exceed the SCAQMD thresholds of significance, the Project would also conflict with the AQMP, thereby resulting in an additional significant and unavoidable impact. The construction and operation of the Specific Plan would not exceed applicable LST, CO hotspot, or HRA thresholds and impacts would be less than significant. The Specific Plan Area's odor and other emissions impacts would be less than significant.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, construction and operations emissions under Alternative 4 would be similar but reduced compared to the proposed Project but would still be potentially significant. With implementation of **MM-AQ-1**, Alternative 4's construction air quality impacts would be reduced to less than significant levels. Under Alternative 4, operational activities would be less intense than those associated with the proposed Project, thereby resulting in fewer vehicle trips and associated air emissions. However, Alternative 4's reduced development and vehicle trips would not reduce operational air emissions to levels below the SCAQMD thresholds of significance for emissions of VOCs, NO_X, CO, and PM_{10}. Even with application of **MM-AQ-2** through **MM-AQ-15**, Alternative 4 operational-source emissions impacts would be significant and unavoidable. Since Alternative 4 operations would exceed the SCAQMD thresholds of significance, Alternative 4 would also conflict with the AQMP, an additional significant and unavoidable impact. The construction and operation of Alternative 4 would not exceed applicable LST, CO hotspot, or HRA thresholds and impacts would be less than significant. Similar to the Project, Alternative 4's odor and other emissions impacts would be less than significant. In summary, Alternative 4 would result in ***lower air quality impacts*** compared to the Project but would still result in ***significant and unavoidable*** air quality impacts.

Biological Resources

As discussed in Section 4.3, Biological Resources, implementation of the proposed Project would result in potentially significant biological impacts. The Specific Plan Area's effect on special status plant and wildlife species, direct impacts on burrowing owl, San Diego black tailed jackrabbit, coastal whiptail, orange-throated whiptail, and western yellow bat, Cooper's hawk, yellow warbler, and California horned lark and indirect impacts on Least Bell's Vireo and Stephens' Kangaroo Rat, would be reduced to less than significant with the implementation of **MM-BIO-1** (Best Management Practices), **MM-BIO-2** (Least Bell's Vireo), **MM-BIO-3** (Operation-Related Indirect Impacts to Special-Status Wildlife), **MM-BIO-4** (Stephens' Kangaroo Rat Avoidance), **MM-BIO-5A** (Burrowing Owl Avoidance and Mitigation Measures)/**MM-BIO-5B** (Burrowing Owl Relocation and Mitigation Plan), **MM-BIO-6** (San Diego Black-

Tailed Jackrabbit), and **MM-BIO-7** (Nesting Bird Avoidance and Minimization Measures). The Specific Plan Area's effect on riparian habitat or other sensitive natural communities would be reduced to less than significant with implementation of **MM-BIO-8** (Upland Vegetation Communities) and **MM-BIO-9** (Aquatic Resources Mitigation). The Specific Plan Area's effect on state or federally protected wetlands would be reduced to less than significant with implementation of **MM-BIO-9**. The Specific Plan would have less than significant impacts to the movement of fish/wildlife, wildlife corridors, or native wildlife nursery sites. The Specific Plan's conflicts with local policies/ordinances protecting biological resources would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-9**. The Specific Plan's conflicts with an adopted HCP or other conservation plan would be reduced to less than significant with implementation of **MM-BIO-4, MM-BIO-5A/ MM-BIO-5B, MM-BIO-6,** and **MM-BIO-9**. As such, with implementation of **MM-BIO-1** through **MM-BIO-9**, the Project's impacts to biological resources would be reduced to less than significant levels.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, impacts to biological resources under Alternative 4 would be similar but reduced compared to the proposed Project, but would still be potentially significant. Alternative 4's effect on special status plant and wildlife species, direct impacts on burrowing owl, San Diego black tailed jackrabbit, coastal whiptail, orange-throated whiptail, and western yellow bat, Cooper's hawk, yellow warbler, and California horned lark and indirect impacts on Least Bell's Vireo and Stephens' Kangaroo Rat, would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-7**. Alternative 4's effect on riparian habitat or other sensitive natural communities would be reduced to less than significant with implementation of **MM-BIO-8** and **MM-BIO-9**. Alternative 4's effect on state or federally protected wetlands would be reduced to less than significant with implementation of **MM-BIO-9**. Alternative 4 would have less than significant impacts to the movement of fish/wildlife, wildlife corridors, or native wildlife nursery sites. Alternative 4's conflicts with local policies/ordinances protecting biological resources would be reduced to less than significant with the implementation of **MM-BIO-1** through **MM-BIO-9**. Alternative 4's conflicts with an adopted HCP or other conservation plan would be reduced to less than significant with implementation of **MM-BIO-4, MM-BIO-5A/MM-BIO-5B, MM-BIO-6,** and **MM-BIO-9**. In summary, given Alternative 4's slightly smaller development footprint, Alternative 4 would have ***fewer biological resources impacts*** compared to the proposed Project.

Cultural Resources

As discussed in Section 4.4, Cultural Resources, implementation of the proposed Project would result in potentially significant impacts to cultural resources. However, even with the incorporation of **MM-CUL-1** through **MM-CUL-8**, the Project's impacts to historical and archaeological resources would be *significant and unavoidable*. With implementation of **MM-CUL-9**, impacts to human remains would be *less than significant*.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street to avoid a cultural resource, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Under the proposed Project, a cultural resource located along the proposed Barton Street extension would be directly impacted during construction activities. Alternative 4 would avoid this known resource by shifting this portion of Barton Street to the east. As no new buildings and/or grading would be introduced on the additional 2.16 acres of Open Space. Without grading on this portion of the Project site, there is less likelihood of encountering previously unidentified cultural,

historic and/or archaeological resources. Given Alternative 4's slightly smaller development footprint, impacts to cultural resources under Alternative 4 would be similar but reduced compared to the proposed Project, but would still be potentially significant. Even with the incorporation of **MM-CUL-1** through **MM-CUL-8**, Alternative 4's impacts to historical and archaeological resources would be *significant and unavoidable*. With implementation of **MM-CUL-9**, Alternative 4's impacts to human remains would be *less than significant*. In summary, given Alternative 4's slightly smaller development footprint, Alternative 4 would have ***fewer cultural resources impacts*** compared to the proposed Project, but would still result in ***significant and unavoidable*** impacts to historical and archaeological resources.

Energy

As discussed in Section 4.5, Energy, construction and operation of the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy or conflict with or obstruct a state or local plan for renewable energy or energy efficiency with the incorporation of **MM-GHG-1** through **MM-GHG-11**. These mitigation measures reduce the Project's energy impacts to less than significant.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4 would consume less energy compared to the proposed Project. With the incorporation of **MM-GHG-1** through **MM-GHG-11**, Alternative 4's energy impacts would be less than significant. In summary, given Alternative 4's slightly smaller development footprint, Alternative 4 would have ***fewer energy impacts*** compared to the proposed Project.

Geology and Soils

As discussed in Section 4.6, Geology and Soils, implementation of the proposed Project would result in potentially significant impacts to geology and soils. The Specific Plan Area would have less than significant impacts with regard to strong seismic ground shaking, seismic-related ground failure, and expansive soils. With the implementation of **MM-GEO-1** (Slope Stability), the Project's impacts related to landslides and unstable soil would be reduced to less than significant. The Specific Plan Area's impacts to paleontological resources and site or unique geologic features would be reduced to less than significant with incorporation of **MM-GEO-2** (Paleontological Resources).

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's impacts to geology and soils would be similar but reduced compared to the proposed Project but would still be potentially significant. Alternative 4 would have less than significant impacts with regard to strong seismic ground shaking, seismic-related ground failure, and expansive soils. With the implementation of **MM-GEO-1**, Alternative 4's impacts related to landslides and unstable soil would be reduced to less than significant. Alternative 4's impacts to paleontological resources and site or unique geologic features would be reduced to less than significant with incorporation of **MM-GEO-2**. In summary, because Alternative 4 would have a slightly smaller development footprint, Alternative 4 would have ***fewer impacts to geology and soils*** compared to the proposed Project.

Greenhouse Gas Emissions

As discussed in Section 4.7, Greenhouse Gas Emissions, implementation of the proposed Project would result in potentially significant GHG impacts because it could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. However, with implementation of **MM-GHG-1** through **MM-GHG-11**, the Project would be consistent with the applicable plans, and GHG impacts would be reduced to *less than significant* levels. Additionally, the Project would not conflict with any of the Senate Bill 32/2017 Scoping Plan elements since any regulations adopted would apply directly or indirectly to the Project. Furthermore, the proposed Project represents 0.90% of the anticipated increase in jobs for the WRCOG region, and therefore, would not result in long-term operational employment growth that exceeds planned growth projections in the RTP/SCS or an Air Quality Management Plan, or result in employment growth that would substantially add to traffic congestion.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's GHG emissions impacts would be similar but reduced compared to the proposed Project but would still be potentially significant because Alternative 4 could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. With implementation of **MM-GHG-1** through **MM-GHG-11**, Alternative 4 would be consistent with the applicable plans, and GHG impacts would be reduced to less than significant levels. In summary, given Alternative 4's slightly smaller development footprint, Alternative 4 would have ***fewer GHG impacts*** compared to the proposed Project.

Hazards and Hazardous Materials

As discussed in Section 4.8, Hazards and Hazardous Materials, implementation of the proposed Project would result in potentially significant hazard and hazardous materials impacts. During construction of the Specific Plan Area, implementation of **MM-HAZ-1** would reduce the Project's impacts involving the routine transport, use, or disposal of hazardous materials. During operations, the Project would have a less than significant impact with regards to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. Given the proximity of the neighboring preschool at Community Grove Church, **MM-HAZ-2** is required to reduce potentially significant impacts associated with Project uses emitting and/or handling hazardous materials within one-quarter mile of an existing or planned school. With implementation of **MM-HAZ-3**, the Project's proximity to March ARB/Inland Port Airport would not result in a safety hazard or excessive noise for people residing or working in the Project area. **MM-FIRE-1** would reduce the Project's impacts involving wildland fires. With implementation of **MM-HAZ-1, MM-HAZ-2, MM-HAZ-3,** and **MM-FIRE-1,** the Project's hazards and hazardous materials impacts would be reduced to less than significant levels.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's impacts related to hazards and hazardous materials would be similar but reduced compared to the proposed Project but would still be potentially significant. During Alternative 4 construction, implementation of **MM-HAZ-1** would reduce Alternative 4's impacts involving the routine transport, use, or disposal of hazardous materials. During operations, Alternative 4 would have a less than significant impact with regards to reasonably foreseeable upset and accident conditions involving the release of hazardous materials.

The development footprint under Alternative 4 would still introduce new uses within proximity of the preschool, and as such, **MM-HAZ-2** would still be required under Alternative 4. With implementation of **MM-HAZ-3**, Alternative 4's proximity to March ARB/Inland Port Airport would not result in a safety hazard or excessive noise for people residing or working in the Project area. **MM-FIRE-1** would reduce Alternative 4's impacts involving wildland fires to less than significant levels. In summary, given Alternative 4's slightly smaller development footprint, Alternative 4 would have ***fewer impacts related to hazards and hazardous materials*** compared to the proposed Project.

Hydrology and Water Quality

As discussed in Section 4.9, Hydrology and Water Quality, implementation of the proposed Project would result in potentially significant impacts to hydrology and water quality. With implementation of **MM-HYD-1** (Interim Soil Stabilization Plan) and **MM-HYD-2** (Water Quality Management Plan), the Project's impacts to surface or groundwater quality would be reduced to less than significant levels. In addition, implementation of the Storm Water Pollution Prevention Plan (SWPPP) in conformance with the Construction General Permit would reduce potential discharge of polluted runoff from construction sites. Further, Project design features would ensure that post-construction runoff velocities would be less than existing conditions and would not substantially alter the existing drainage pattern of the site or area. The Project's impacts to groundwater supplies and recharge would be less than significant. With implementation of **MM-HYD-3** (Hydrology/Drainage Study), the Project's impacts related to on- or off-site erosion or siltation and runoff water would be reduced to less than significant. Further the Project would have a less than significant impact related to risk releasing of pollutants due to inundation, impeding or redirecting flood flows, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's impacts to hydrology and water quality would be similar but reduced compared to the proposed Project but would still be potentially significant. With implementation of **MM-HYD-1** and **MM-HYD-2**, Alternative 4's impacts to surface or groundwater quality would be reduced to less than significant levels. In addition, implementation of the SWPPP in conformance with the Construction General Permit would reduce potential discharge of polluted runoff from construction sites. Further, Project design features would ensure that post-construction runoff velocities would be less than existing conditions and would not substantially alter the existing drainage pattern of the site or area. Alternative 4's impacts to groundwater supplies and recharge would be less than significant. With implementation of **MM-HYD-3,** Alternative 4's impacts related to on- or off-site erosion or siltation and runoff water would be reduced to less than significant. Further, Alternative 4 would have a less than significant impact related to risk releasing of pollutants due to inundation, impeding or redirecting flood flows, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan. In summary, given Alternative 4's slightly smaller development footprint, Alternative 4 would have ***fewer impacts to hydrology and water quality*** compared to the proposed Project.

Land Use and Planning

As discussed in Section 4.10, Land Use and Planning, with implementation of **MM-AQ-1** through **MM-AQ-15, MM-BIO-1** through **MM-BIO-9**, **MM-CUL-1** through **MM-CUL-9**, **MM-GEO-1, MM-GEO-2, MM-GHG-1** through **MM-GHG-11, MM-HAZ-1** through **MM-HAZ-3, MM-HYD-1** through **MM-HYD-3, MM-TRA-1** and **MM-TRA-2**, and **MM-FIRE-1** through **MM-FIRE-3,** the Project would be consistent or partially consistent with the March JPA General Plan Goals. March JPA

designates the Project site as Business Park (BP), Industrial (IND) and Park/Recreation/Open Space (P/R/OS) land uses in the March JPA General Plan. The Project site has not previously been given a zoning designation by March JPA; therefore, the Project proposes zoning consistent with the proposed General Plan Amendment and Specific Plan designations of Mixed Use, Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facility for the site. The Project proposes adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13. The Project would be consistent with the March Development Code and the Riverside County ALUCP. Furthermore, the proposed Project would be consistent with the guiding principles, goals, and policies of SCAG's Connect SoCal. As such, with incorporation of mitigation, the Project would result in less than significant land use impacts through conflicts with plans adopted for the purpose of avoiding or mitigating an environmental effect.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street to avoid a cultural resource, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's land use and planning impacts would be similar but reduced compared to the proposed Project. With implementation of **MM-AQ-1** through **MM-AQ-15, MM-BIO-1** through **MM-BIO-9**, **MM-CUL-1** through **MM-CUL-9**, **MM-GEO-1, MM-GEO-2, MM-GHG-1** through **MM-GHG-11, MM-HAZ-1** through **MM-HAZ-3, MM-HYD-1** through **MM-HYD-3, MM-TRA-1** and **MM-TRA-2**, and **MM-FIRE-1** through **MM-FIRE-3,** Alternative 4 would be consistent or partially consistent with the March JPA General Plan Goals. Similar to the proposed Project, Alternative 4 would propose zoning consistent with the proposed General Plan Amendment and Specific Plan designations of Mixed Use, Business Park (BP), Industrial (IND), Parks/Recreation/Open Space (P/R/OS), and Public Facility for the site. Alternative 4 would also propose adoption of Specific Plan SP-9 consistent with applicable requirements in California Government Code Sections 65450–65457 and March JPA Development Code Chapter 9.13. Alternative 4 would be consistent with the March Development Code and the Riverside County ALUCP. Alternative 4 would be consistent with the guiding principles, goals, and policies of SCAG's Connect SoCal. In summary, given Alternative 4's slightly smaller development footprint, Alternative 4 would result in *less than significant land use and planning* impacts and have ***fewer land use and planning impacts*** compared to the proposed Project.

Noise

As discussed in Section 4.11, Noise, the Project would not generate substantial temporary or permanent increase in ambient noise levels, with the exception of traffic noise level increases along a non-sensitive roadway segment: Cactus Avenue east of Meridian Parkway (Segment #13). Therefore, the Project would have a significant and unavoidable noise impact and no feasible mitigation measures are available to reduce Project-related significant traffic noise increases along Segment #13. All other noise and vibration impacts associated with construction and operation of the Project would be less than significant.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's noise impacts would be similar but reduced compared to the proposed Project but would still be potentially significant. Alternative 4's reduction in vehicle trips would not be sufficient to reduce the traffic noise level increases along a non-sensitive roadway segment: Cactus Avenue east of Meridian Parkway (Segment #13). Therefore, Alternative 4 would have a significant and unavoidable noise impact and no

feasible mitigation measures are available to reduce Alternative 4's significant traffic noise increases along Segment #13. All other noise and vibration impacts associated with construction and operation of Alternative 4 would be less than significant. In summary, given Alternative 4's slightly smaller development footprint, Alternative 4 would have ***fewer noise impacts*** compared to the proposed Project, but would still result in ***significant and unavoidable noise*** impacts.

Population and Housing

As discussed in Section 4.12, Population and Housing, Under the buildout scenario, it is anticipated that the Project would employ approximately 2,600 full-time employees. Based on the County's unemployment rate, this EIR assumes that the Project's employees will be primarily existing residents of Riverside County. The anticipated number of jobs generated by the Project would be a nominal addition to the County's existing and projected labor force. Thus, the employment growth that would be attributed to the Project is consistent with SCAG's overall growth projections and would not result in a substantial increase of unplanned population growth. Therefore, the Project would have a less than significant impact related to population and housing and no mitigation is required.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. As a result of the reduction in acreages for Business Park and Mixed-Used development, Since Alternative 4 would have a reduced workforce, Alternative 4 would have ***fewer population and housing impacts*** compared to the proposed Project.

Public Services

As discussed in Section 4.13, Public Services, with the implementation of **MM-FIRE-1**, the Project's impacts to fire services would be reduced to less than significant. The Project's impacts to police services, schools, parks and other public facilities would be less than significant and no mitigation is required.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's impacts on public services would be similar but reduced compared to the proposed Project but would still be potentially significant. With the implementation of **MM-FIRE-1**, Alternative 4's impacts to fire services would be reduced to less than significant. Alternative 4's impacts to police services, schools, parks and other public facilities would be less than significant and no mitigation is required. In summary, Alternative 4 would have ***fewer impacts to public services*** compared to the proposed Project.

Recreation

As discussed in Section 4.14, Recreation, it is likely that the majority of the Campus Development's future employees are already residents of the nearby communities and are already using the local parks and recreational facilities. There could be an increase in demand for recreational facilities but because the Project's employees and surrounding neighborhoods would have access to the proposed 60.28-acre Park, any increased demand would not result in the need to construct additional recreational facilities under the Specific Plan buildout scenario. The recreational amenities analyzed include a playground, multiuse sports fields that could be used for soccer, football,

and field hockey, and trails with cardio stops for recreational users. The impacts related to the Park's construction have been included in all of the analyses in this Draft EIR. Additionally, the currently existing service roads within the Conservation Easement, as depicted by the red lines on Figure 3-4, would continue to be utilized by the public for passive recreation as authorized by the March JPA, consistent with the terms of the CBD Settlement Agreement (Appendix S). Therefore, the Project would result in less than significant impacts to recreational facilities and no mitigation is required.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's impacts on recreation would be similar but reduced compared to the proposed Project. Alternative 4 would result in a reduced demand on recreational resources compared to the proposed Project. Therefore, Alternative 4 would have ***fewer recreational impacts*** compared to the proposed Project.

Transportation

As discussed in Section 4.15, Transportation, with the incorporation of **MM-TRA-1** (Construction Traffic Management Plan), Project construction impacts on the circulation system would be reduced to less than significant. With implementation of **MM-TRA-2** (Traffic Safety Plan for Barton Street), the Project's operational impacts on the circulation system would be less than significant. The Specific Plan Area's impact on VMT would be less than significant. Although the Specific Plan Area is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires the Project to provide funding for the installation of a bus shelter on Alessandro Boulevard. The Project's potential to increase hazards due to design features or incompatible uses would be reduced to less than significant with implementation of **MM-TRA-1** and **MM-TRA-2**.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's transportation impacts would be similar but reduced compared to the proposed Project but would still be potentially significant. With the incorporation of **MM-TRA-1**, Alternative 4 construction impacts on the circulation system would be reduced to less than significant. With implementation of **MM-TRA-2**, Alternative 4's operational impacts on the circulation system would be less than significant. Alternative 4's impact on VMT would be less than significant. Although Alternative 4 is not anticipated to have a significant VMT impact, **MM-AQ-9** further reduces VMT by requiring all tenants to implement or otherwise participate in a Transportation Demand Management program, including on-site transit pass sales and discounted passes, shuttle service to/from public transit and commercial/food establishments, if warranted, guarantee a ride home, and "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk or take transit to work. Additionally, **MM-GHG-11** requires Alternative 4 to provide funding for the installation of a bus shelter on Alessandro Boulevard. Alternative 4's potential to increase hazards due to design features or incompatible uses would be reduced to less than significant with implementation of **MM-TRA-1** and **MM-TRA-2**. During construction, fewer construction worker vehicle and equipment trips would be generated because less construction activities

would occur. Because of the slightly smaller development footprint, there would also be a reduction in employee trips during operation of the Alternative 4. Therefore, Alternative 4 would have ***fewer transportation impacts*** compared to the proposed Project.

Tribal Cultural Resources

As discussed in Section 4.16, Tribal Cultural Resources, implementation of the proposed Project would result in potentially significant impacts to tribal cultural resources. However, even with implementation of **MM-CUL-1** through **MM-CUL-8**, the Project's impacts to tribal cultural resources would remain *significant and unavoidable*.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street to avoid a cultural resource, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4 is proposed to avoid a known cultural resource, impacts to tribal cultural resources under Alternative 4 would be similar but reduced compared to the proposed Project, but would still be potentially significant. Even with the incorporation of **MM-CUL-1** through **MM-CUL-8**, Alternative 4's impacts to tribal cultural resources would be *significant and unavoidable*. . In summary, implementation of Alternative 4 may result in ***fewer tribal cultural resources impacts*** when compared to the proposed Project but would still be **significant and unavoidable**.

Utilities and Service Systems

As discussed in Section 4.17, Utilities and Service Systems, the Project would have less than significant impacts to facilities providing water, wastewater, storm water, electric power, natural gas, and telecommunications. There are sufficient water supplies available and wastewater treatment capacity to serve the Project, resulting in less than significant impacts. The Project would have a less than significant impact on solid waste infrastructure and capacity and would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, the Project impacts to utilities and service systems would be less than significant, and no mitigation is required.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's operational activities would be less intense and therefore introduce fewer employees and a reduced demand for water, wastewater, electric power, telecommunications infrastructure, and solid waste services when compared to the proposed Project. Alternative 4 would have ***fewer impacts to utilities and service systems*** compared to the proposed Project.

Wildfire

As discussed in Section 4.18, Wildfire, the Project site is near lands classified as Very High Fire Hazard Severity Zone (FHSZ) and implementation of the proposed Project would result in potentially significant wildfire impacts. However, with implementation of **MM-FIRE-1** through **MM-FIRE-3**, as well as **MM-HYD-3**, the Project's potential to facilitate wildfire spread, exacerbate wildfire risk, or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes would be reduced to less than significant levels.

Alternative 4 would have a slightly smaller development footprint compared to the proposed Project. With the realignment of Barton Street, Alternative 4 would result a reduction of 4.35 acres available for Business Park development, a reduction of 1.9 acres available for Mixed-Use development, and an increase of 2.16 acres of Open Space, resulting in a corresponding slight reduction in workforce and total trips. Given Alternative 4's slightly smaller development footprint, Alternative 4's wildfire impacts would be similar but reduced compared to the proposed Project but would still be potentially significant. With implementation of **MM-FIRE-1** through **MM-FIRE-3**, as well as **MM-HYD-3**, Alternative 4's potential to facilitate wildfire spread, exacerbate wildfire risk, or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes would be reduced to less than significant levels. Therefore, Alternative 4 would have ***reduced wildfire impacts*** compared to the proposed Project.

6.4.5.2 Project Objectives

Under Alternative 4, Barton Street would be realigned to the east to avoid a known cultural resource site that otherwise would be directly impacted under the proposed Project during construction activities. To avoid this known cultural resource, Alternative 4 would realign this portion of Barton Street. Realigning Barton Street to the east would result in a reduction of 4.25 acres available for Business Park development, and a reduction of 1.9 acres of Mixed-Use, resulting in a corresponding slight reduction in workforce and total trips, compared to the proposed Project. Additionally, by realigning this portion of Barton Street, there would an increase of 2.16 acres of Open Space to the west of Barton Street compared to the proposed Project. As shown in Table 6-12, Alternative 4 meets each Project objective.

Table 6-12. Summary of Alternative 4 Success at Meeting Project Objectives

Project Objective	Does Alternative 4 Meet Objective?
1. Provide increased job opportunities for residents through the provision of employment-generating businesses.	**Yes**. Alternative 4 would provide increased job opportunities through the provision of employment-generating businesses. However, Alternative 4 would have less Business Park and Mixed-Use development. As such, Alternative 4 would achieve this objective to a lesser extent than the Project.
2. Provide open space amenities to serve the region.	**Yes**. Alternative 4 would provide slightly more open space amenities to serve the region compared to the proposed Project. Alternative 4 would achieve this objective to a greater extent than the Project.
3. Provide an active park consistent with the 2009 Safety Study prepared by March JPA.	**Yes**. Alternative 4 would provide the same 60.28-acre Park as the proposed Project. Alternative 4 would fully achieve this Project objective.
4. Complete the buildout of the roadway infrastructure by extending Cactus Avenue to the Specific Plan Area from its existing terminus, extending Barton Street from Alessandro Boulevard to Grove Community Drive, and extending Brown Street from Alessandro Boulevard to Cactus Avenue.	**Yes**. Although Alternative 4 would realign a portion of Barton Street to the east, Alternative 4 would provide all the same roadway infrastructure as the proposed Project. As such, Alternative 4 would fully achieve this Project objective.
5. Remove and redevelop a majority of the former munitions storage area of the March AFB.	**Yes**. Alternative 4 would remove and redevelop a majority of the former munitions storage area. As such, Alternative 4 would fully achieve this Project objective.

Table 6-12. Summary of Alternative 4 Success at Meeting Project Objectives

Project Objective	Does Alternative 4 Meet Objective?
6. Encourage the use of alternative modes of transportation through the provision of a pedestrian and bicycle circulation system, which is both safe and comfortable.	**Yes**. Under Alternative 4, the buildout would include the provision of new roadways that could accommodate all modes of travel, including pedestrian and bicycle movement. Alternative 4 would fully achieve this Project objective.
7. Implement the terms and conditions agreed upon in the September 12, 2012, Settlement Agreement entered into between and among the CBD, the San Bernardino Valley Audubon Society, March JPA, and LNR Riverside LLC, as the complete settlement of the claims and actions raised in *Center for Biological Diversity v. Jim Bartel, et al*. to preserve open space through establishing a Conservation Easement.	**Yes**. Alternative 4 would place the Conservation Easement under a conservation easement. As such, Alternative 4 would fully achieve this Project objective.

6.5 Environmentally Superior Alternative

As indicated in Table 6-1, Alternative 1, the No Project Alternative, would result in the fewest environmental impacts, and therefore would be considered the Environmentally Superior Alternative. Pursuant to CEQA Guidelines Section 15126.6(e)(2), if the No Project Alternative is the environmentally superior alterative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Alternative 2, the Reduced Development Alternative, would be the Environmentally Superior Alternative. Alternative 2 reduces the development footprint more than Alternative 3, Restricted Industrial Building Size Alternative, as well as also slightly reduces the development footprint when compared to Alternative 4, Reduced Cultural Resource Impact Alternative, thereby providing a greater reduction in workforce and total vehicle trips. While Alternative 4 would result in fewer impacts to cultural resources by shifting the Barton Street roadway alignment, Alternative 4 would result in more development than Alternative 2 and would therefore result in more impacts overall when compared with Alternative 2. Alternative 2 was found to result in fewer aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire impacts. Alternative 2 would achieve all the Project objectives, but not to the same extent as the Project.

INTENTIONALLY LEFT BLANK

SOURCE: RGA, 2022

FIGURE 6-1

Alternative 2 – Reduced Development Area Alternative

West Campus Upper Plateau Draft EIR

DUDEK

INTENTIONALLY LEFT BLANK

7 List of Preparers

7.1 Lead Agency

March Joint Powers Authority

Dan Fairbanks, AICP, Planning Director
14205 Meridian Parkway, Suite 140
Riverside, California 92518

7.2 Applicant

Meridian Park LLC

Timothy Reeves, Vice President Retail Project Development
Adam Collier, Vice President Planned Communities
Waen Messner, Project Manager
1156 North Mountain Avenue
Upland, California 91786

7.3 Dudek

Nicole Cobleigh, Senior Project Manager
Rachel Struglia, PhD, AICP, Senior Project Manager
Brandon Whalen-Castellanos, Environmental Planner
Daniel Hoffman, Environmental Planner
Adam Poll, Air Quality Specialist
Anna Cassady, Biologist
Sarah Greely, Staff Biologist
Keshia Montifolca, Archaeologist
Adam Giacinto, Senior Archaeologist
Perry Russell, PG, CEG, Geologist, Hydrologist, Utilities Specialist
Eric Schniewind, Hazardous Material Specialist
Jonathan Leech, AICP, INCE, Noise Specialist
Sabita Tewani, Transportation Planner
Dennis Pascua, Senior Transportation Planner
Lisa Maier, MCP, Fire Protection Planner

7.4 Subconsultants

T&B Planning Inc.

3200 El Camino Real, Suite 100
Irvine, California 92602

Urban Crossroads

1133 Camelback, Suite 8329
Newport Beach, California 92626

Contributors

Bill Lawson, PE, INCE
Haseeb Qureshi
Alyssa Barnett

ROCKS, Biological Consulting

2621 Denver Street, Suite B
San Diego, California 92110-3300

Contributors

Melanie Rocks
Ian Hirschler
Shannon Mindeman

Brian F. Smith and Associates Inc.

14010 Poway Road, Suite A
Poway, California 92064

Contributors

Brian F. Smith, MA
Todd A. Wirths, MS, PG
Andrew J. Garrison, MA, RPA

DRC Engineering Inc.

160 South Old Springs Road, Suite 210
Anaheim Hills, California 92808

Contributor

Christopher McKee, PE

Leighton Consulting Inc.

41715 Enterprise Circle North, Suite 103
Temecula, California 92590

Contributors

Robert B. Hansen
Kris R. Lutton