Public Review Draft Environmental Impact Report
SCH No. 2023030603

Starlight Solar Project

San Diego County, California

Lead Agency

County of San Diego
Department of Planning and Land Use
5510 Overland Avenue, Suite 210
San Diego, CA 92123

Public Review Draft Environmental Impact Report | July 2025

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Lead Agency:

County of San Diego
Department of Planning and Land Use
5510 Overland Avenue, Suite 210
San Diego, CA 92123

CEQA Consultant:

SWCA Environmental Consultants
3838 Camino Del Rio North, Suite 220
San Diego, CA 92108

Project Proponent:

Empire II LLC
12302 Exposition Blvd
Los Angeles, CA, 90064

Lead Agency Discretionary Permits:

PDS2022-MUP-22-010
LOG No. PDS2022-ER-22-21-002

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Acronyms and Abbreviations

Acronym	Definition
°F	Degrees Fahrenheit
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
A-P Zones	Earthquake Fault Zones requiring investigation
AB	Assembly Bill
AC	alternating current
ACM	asbestos-containing material
ADI	area of direct impact
af	acre-feet
af/yr	acre-feet per year
AIA	Airport Influence Area
AJD	approved jurisdictional determination
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act of 1972
ALUCP	Airport Land Use Compatibility Plan
amsl	above mean sea level
ANFO	ammonium nitrate mixed with fuel oil
ANSI	American National Standards Institute
APLIC	Avian Power Line Interaction Committee
APN	Assessor's Parcel Number
AQIA	Air Quality Impact Assessment
Applicant	Starlight Solar LLC
ASTM	ASTM International
Basin Plan	*Water Quality Control Plan for the Colorado River Basin Region*
BCC	Bird of Conservation Concern
BESS	battery energy storage system
BGEPA	Bald and Golden Eagle Protection Act
Biological Resources Report	*Biological Resources Report for the Starlight Solar Project*
BLM	Bureau of Land Management
BMO	Biological Mitigation Ordinance
BMP	best management practice
Boulevard Subregional Plan	*Boulevard Subregional Planning Area, Mountain Empire Subregional Plan*
BRCA	Biological Resource Core Area
Btu	British thermal unit

Acronym	Definition
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal EMA	California Emergency Management Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
Campo	Campo Band of Diegueño Mission Indians
CAP	Climate Action Plan
CAP Consistency Checklist	*2024 Climate Action Plan Consistency Review Checklist for Starlight Solar*
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	California Action Team
CBC	California Building Code
CBP	U.S. Customs and Border Protection
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife (formerly the California Department of Fish and Game)
CDTFA	California Department of Tax and Fee Administration
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESA	California Endangered Species Act

Acronym	Definition
CFC	Consolidated Fire Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHHSL	California Human Health Screening Level
CHP	California Highway Patrol
CLUP	Comprehensive Land Use Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNMP	construction noise monitoring plan
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Contract	Williamson Act Contract
Cortese List	Hazardous Waste and Substance Sites (California Government Code Section 65962.5(a))
County	County of San Diego
County Code	San Diego County Code of Regulatory Ordinances
County Noise Ordinance	County Code Section 36.401–36.435
County Register	San Diego County Local Register of Historical Resources
CPA	Community Planning Area
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSS	coastal sage scrub
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DC	direct current
DEHQ	County of San Diego Department of Environmental Health and Quality
DEHQ-HIRT	DEHQ Hazardous Incident Response Team
DG	decomposed granite
DHS	Department of Homeland Security
DOC	California Department of Conservation

Acronym	Definition
DPM	diesel particulate matter
DPW	San Diego County Department of Public Works
DTSC	Department of Toxic Substances Control
DU	dwelling unit
DWR	California Department of Water Resources
ECMSCP	East County Multiple Species Conservation Program
EIR	Environmental Impact Report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning Community Right-to-Know Act
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FAA Solar Guide	*Technical Guidance for Evaluating Selected Solar Technologies on Airports*
FCA	focused conservation area
FEMA	Federal Emergency Management Administration
FERC	Federal Energy Regulatory Commission
FHSZ	Fire Hazard Severity Zone
FIRM	Flood Insurance Rate Map
FMZ	Fuel Modification Zone
FPP	fire protection plan
FPT	federally proposed threatened
FUDS	Formerly Used Defense Sites
g	the acceleration of a falling object due to gravity
gen-tie	generation-tie
General Plan	*San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability*
General Plan Update EIR	*Draft Final Environmental Impact Report for the San Diego County General Plan Update*
GHG	greenhouse gas
GMMP	groundwater monitoring and mitigation plan
Gpm	gallons per minute
GSA	groundwater sustainability agency
GSP	groundwater sustainability plan
GWh	gigawatt-hour
GWP	global warming potential

Acronym	Definition
H&SC	California Health and Safety Code
H_2S	hydrogen sulfide
HAP	hazardous air pollutant
HCP	habitat conservation plan
HEC-RAS	Hydrologic Engineering Centers River Analysis System
HFC	hydrofluorocarbon
HMBP	Hazardous Materials Business Plan
HMD	Hazardous Materials Division
HMP	habitat management plan
hp	horsepower
HRA	health risk assessment
HUC	Hydrologic Unit Code
HVAC	Heating, ventilation, and air conditioning
Hz	hertz
I-8	Interstate 8
in/sec	inches per second
IFTDSS	Interagency Fuels Treatment Decision Support System
IPCC	Intergovernmental Panel on Climate Change
INTERA	INTERA Incorporated
IQ	intelligence quotient
ISO	International Standards Organization
ITE	Institute of Transportation Engineers
Jamul	Jamul Indian Village
JCSD	Jacumba Community Services District
KOP	key observation point
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
L25	25% of a 1-hour measurement
Leq	equivalent sound level
Lmax	root-mean-square maximum noise level
Lmin	root-mean-square minimum noise level (acoustic floor)
Lpeak	peak sound level
LARA	Local Agricultural Resources Assessment
LBP	lead-based paint

Acronym	Definition
lbs	pounds
LCI	California Governor's Office of Land Use and Climate Innovation (formerly the Office of Planning and Research)
LED	light-emitting diode
LID	Low Impact Development
Light Pollution Code	County Code Sections 51.201–51.209, Dark Sky Ordinance
LOS	level of service
Ma	million years ago
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
mg/m^3	milligrams per cubic meter
MLD	Most Likely Descendent
MMBtu	million British thermal units
MMRP	Mitigation Monitoring and Reporting Program
MOU	Memorandum of Understanding
Mountain Empire Subregional Plan	*Mountain Empire Subregional Plan, San Diego County General Plan*
mpg	miles per gallon
Mph	miles per hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MS4	municipal separate storm sewer system
MSCP	Multiple Species Conservation Program
MSH	Millingstone Horizon
MT	metric ton
MTS	San Diego Metropolitan Transit System
MUP	Major Use Permit
MW	megawatt
MWh	megawatt-hour
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NBMMRP	nesting bird management, monitoring, and reporting plan
NCCP	natural community conservation planning
NERC	North American Electric Reliability Corporation

Acronym	Definition
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NML	nest monitoring log
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSLU	noise-sensitive land use
O_3	ozone
O&M	operations and maintenance
OHWM	ordinary high water mark
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
OSM	Office of Surface Mining
Pb	lead
PCB	polychlorinated biphenyl
PCC	Portland cement concrete
PCS	power conditioning system
PDS	Planning and Development Services
PERP	Portable Equipment Registration Program
PFC	perfluorocarbon
PGA	peak ground acceleration
PI	Principal investigator
$PM_{2.5}$	fine particulate matter (2.5 microns in diameter or smaller)
PM_{10}	coarse particulate matter (10 microns in diameter or smaller)
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppb	parts per billion
pphm	parts per hundred million
ppm	parts per million
ppmv	parts per million by volume

Acronym	Definition
PPV	peak particle velocity
PRC	Public Resources Code
PRG	preliminary remediation goal
project	Starlight Solar Project
PV	photovoltaic
QCB	Quino checkerspot butterfly
RAQS	County Regional Air Quality Strategy
RBC	Rocks Biological Consulting
RCA	Resource Conservation Area
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
Resource Management Plan	*Eastern San Diego County Resource Management Plan and Record of Decision*
REC	recognized environmental condition
RFS	Renewable Fuel Standard
RL-40	Rural Lands 40
RL-80	Rural Lands 80
RMP	resource management plan
RMS	root mean square
ROG	reactive organic gases
ROW	right-of-way
RPO	Resource Protection Ordinance
RPS	Renewables Portfolio Standard
RTP	regional transportation plan
RWQCB	Regional Water Quality Control Board
S92	General Rural
SAMP	special area management plan
San Pasqual	San Pasqual Band of Diegueño Mission Indians
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SCIC	South Coastal Information Center
SCOTUS	Supreme Court of the United States
SCP	scientific collecting permit

Acronym	Definition
SCS	sustainable communities strategy
SD&AE	San Diego & Arizona Eastern Railway
SDAB	San Diego Air Basin
SDAPCB	San Diego Air Pollution Control District
SDCFA	San Diego County Fire Authority
SDCFPD	San Diego County Fire Protection District
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas and Electric Company
SDLAFCO	San Diego Local Agency Formation Commission
SDUH	San Diego Unit Hydrology
SDWA	Safe Drinking Water Act
SF_6	sulfur hexafluoride
SGHAT	Solar Glare Hazard Analysis Tool
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act of 1975
SO_2	sulfur dioxide
SO_x	sulfur oxide
SPCC	spill prevention, control, and countermeasure
SR	State Route
SR-10	Semi-Rural Residential
SRA	State Responsibility Area
SSC	Species of Special Concern
SWPPP	stormwater pollution prevention plan
SWQMP	San Diego Stormwater Quality Management Plan
SWRCB	State Water Resources Control Board
T-BACT	toxics best available control technology
TAC	toxic air contaminant
TCP	traffic control plan
TCR	tribal cultural resource
TDM	Transportation Demand Management
TISG	Caltrans 2020 *Transportation Impact Study Guide*
TMDL	total maximum daily load
UBC	Uniform Building Code
UL	Underwriters Laboratories

Acronym	Definition
USC	United States Code
U.S. EIA	U.S. Energy Information Administration
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	urban water management plan
VdB	vibration decibel
Viejas	Viejas Band of Kumeyaay Indians
VMT	vehicle miles traveled
VOC	volatile organic compound
VRP	visibility reducing particle
WDR	waste discharge requirement
Williamson Act	California Land Conservation Act of 1965
WL	watch list
WOS	waters of the state
WOUS	waters of the United States
WPO	County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance
WWOS	wetland waters of the state
WWOUS	wetland waters of the United States
ZEV	zero-emission vehicle

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CHAPTER S. EXECUTIVE SUMMARY

This chapter provides a summary of the Draft Environmental Impact Report (EIR) for the Starlight Solar Project (project), prepared in accordance with the California Environmental Quality Act (CEQA). In compliance with CEQA requirements, this EIR (1) evaluates the potentially significant direct, indirect, and cumulative environmental impacts of the project; (2) identifies feasible measures to avoid or substantially mitigate significant adverse impacts; and (3) explores a range of reasonable alternatives to the project, including the mandatory No Project Alternative. The County of San Diego (County) serves as the lead agency for the project and is primarily responsible for preparing this EIR. According to the State CEQA Guidelines (14 California Code of Regulations 15000 et seq.), this EIR encompasses an assessment of the entire project's effects. The County will use this EIR to inform public agencies, the public, and decision-makers about the significant environmental impacts of the project, suggest ways to minimize these impacts, and describe reasonable alternatives to the project.

S.1 PROJECT SYNOPSIS

S.1.1 Project Description

Starlight Solar LLC (Applicant) is requesting a Major Use Permit (MUP) from the County of San Diego (County) to develop, finance, construct, and operate an unoccupied renewable energy solar and battery storage project in southeastern San Diego County. The County's General Plan (County of San Diego 2011) designates the project site as Rural Lands 80 (RL-80), and the County's Zoning Ordinance identifies the site as General Rural (S92). The County's General Regulation states that solar power plant projects are considered a Major Impact Service and Utility in all zones and thus require the approval of a MUP (County of San Diego 2022).

The project would use photovoltaic (PV) electric generation system technology to produce approximately 100 megawatts (MW) of alternating current (AC) of solar energy at the utility scale. The project would also include an 868-megawatt-hour (MWh) (approximately 217 MW, 4-hour batteries) battery energy storage system (BESS). The project site encompasses a total of approximately 588 acres within the Mountain Empire Subregion in unincorporated San Diego County (Figure 1-1 in Chapter 1.0, Project Description, Location, and Environmental Setting). The project would be constructed in two phases: the first phase would consist of 20 MW of solar energy generation and 17 MW of battery storage, and the second would consist of 80 MW of solar energy generation and 200 MW of battery storage.

S.1.2 Project Objectives

Specific objectives for the project are as follows:

1. Develop a solar energy project that maximizes energy generation and battery storage potential with a rated capacity of approximately 100 MW and an approximately 217-MW BESS facility that can supply electricity to indirectly reduce the need to emit greenhouse gases (GHGs) caused by the generation of similar quantities of electricity from either existing or future nonrenewable sources to meet existing and future electricity demands, including during on-peak power periods.
2. Develop a renewable solar energy project that can meet the criteria to achieve the maximum state and federal solar investment tax credits, which are intended to decrease the cost of renewable energy generation and delivery, promote the diversity of energy supply, and decrease the dependence of the United States on foreign energy supplies.

3. Assist in achieving the state's Renewables Portfolio Standard (RPS), as mandated under the 100 Percent Clean Energy Act of 2018 (Senate Bill 100), by developing and constructing California RPS-qualified solar generation from eligible renewable energy resources by December 31, 2045.
4. Develop a utility-scale solar energy project that improves electrical reliability for the San Diego region by providing a source of local generation as near as possible to existing San Diego Gas and Electric (SDG&E) transmission infrastructure.
5. Provide a new source of energy storage that assists the state in achieving or exceeding its energy storage targets, consistent with the terms of Assembly Bill 2514, and its GHG reduction targets, consistent with Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279.
6. Site a solar energy project in an area within San Diego County that has excellent solar attributes, including but not limited to high direct normal irradiance, in order to maximize productivity.
7. Develop a utility-scale solar energy facility within San Diego County that supports the economy by investing in the region and creating construction jobs.

S.1.3 Project Location

The project site encompasses approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.93 mile north of the United States border. The project site is approximately 1 mile south of Interstate 8 (I-8) and Old Highway 80, and east of Tierra Del Sol Road. Regional access to the project site would be provided by State Route 94 and I-8. Access to the project site would be provided by Jewel Valley Road, which runs north to south and connects to Old Highway 80 in the town of Boulevard. An underground generation-tie (gen-tie) line would be located on the east side of Tule Jim Lane and connect into the southeastern corner of the SDG&E Boulevard East Substation. Although the majority would be underground, the gen-tie line would have one overhead portion in order to cross Tule Jim Road and would encompass 7 acres. An off-site vehicle turnaround area on Jewel Valley Road would be 0.06 acre in size.

S.1.4 Environmental Setting

The entire project site is currently undeveloped. It lies within the boundaries of the privately owned Empire Ranch, an approximately 3,795-acre ranch that stretches from south of Old Highway 80 to the United States border with Mexico. Beyond the project site boundaries, Empire Ranch currently contains a ranch compound with residential buildings, structures for livestock, private roads, and an airstrip. Empire Ranch also previously contained agricultural uses, which are currently reduced in scale. A section of the San Diego and Arizona Eastern Railway that is no longer in service runs east to west through the southern portion of the project site. Boundary Creek also flows in a southeastern direction directly south of Jewel Valley Road.

The project site is surrounded by unpaved roads, other rural residential development, an electrical substation, and undeveloped land. The SDG&E Boulevard East Substation is located on approximately 2 acres to the northeast of the project site, directly south of Old Highway 80. The project site is topographically diverse. In the northern portion of the site, east- and south-facing sloping hillsides are characteristic, with elevations up to 3,650 feet above mean sea level (amsl) in the northeast. In the southern portion of the site, elevation decreases to 3,450 amsl. There are 14 natural vegetation communities and land cover types and three additional cover types within the category of disturbed or developed land.

S.2 SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES THAT REDUCE OR AVOID THE SIGNIFICANT EFFECTS

The potentially significant effects of the project disclosed in this environmental analysis are summarized in Table S-1. Mitigation measures have been identified to address environmental impacts related to Aesthetics (Section 2.1), Biological Resources (Section 2.2), Cultural Resources (Section 2.3), Hydrology and Water Quality (Section 2.4), Noise (Section 2.5), Tribal Cultural Resources (Section 2.6), and Wildfire (Section 2.7). The mitigation measures are designed to reduce potentially significant impacts to a level below significance; however, impacts to Aesthetics (Impacts AE-1 through AE-3, AE-CU-1 through AE-CU-3), remain significant and unavoidable. A detailed analysis of significant environmental effects and corresponding mitigation measures is presented in Chapter 2.0, Significant Environmental Effects of the Proposed Project, of this EIR. Table S-1 does not include project design features (PDFs), which have been identified to further reduce the impacts identified for each resource area. Appliable PDFs are provided in the impact analysis section for each topic.

S.3 AREAS OF CONTROVERSY

Section 15123(b)(2) of the State CEQA Guidelines requires that an EIR identify areas of controversy as well as issues to be resolved known to the lead agency, including issues raised by other agencies and the public. On March 23, 2023, in accordance with Sections 15063 and 15082 of the State CEQA Guidelines, the County published a Notice of Preparation (NOP) for the EIR and circulated it to governmental agencies, organizations, and persons who may be interested in the proposed project, including nearby landowners, homeowners, and tenants. As part of releasing the NOP, the County requested comments on the scope of the EIR and asked interested parties for their suggestions regarding ways the project could be revised to reduce or avoid any significant environmental impacts. The NOP provided a general description of the proposed project, a description of the project site, and a preliminary list of potential environmental effects. The 30-day comment period extended through April 24, 2023.

A public scoping meeting was held at 39919 Ribbonwood Road, Boulevard, California on April 12, 2023, to solicit input from any interested parties on the scope and content of the EIR in conformance with Section 21083.9 of the California Public Resources Code. Following the close of the 30-day comment period on the NOP, comment letters were reviewed to identify any key issues that may require additional technical studies or background research. Copies of written comments received during the NOP comment period and the Initial Study are presented in Appendix A, NOP, Initial Study, and Public Comments, of this EIR. Through the environmental review process for this project, other areas of concern and issues to be resolved include:

- Potential impacts on habitats and special-status plant and wildlife species
- Potential impacts on hydrology, water quality, and water supply
- Potential impacts to cultural and tribal cultural resources
- Potential impacts to traffic and circulation
- Potential impacts to air quality to surrounding properties including health effects from air pollution
- Potential impacts resulting from noise
- Potential impacts to residences including the degradation of the visual character of the area
- Potential impacts of the BESS (potential fire risk and hazardous materials)

To the extent these issues and concerns are within the scope of CEQA, they are addressed in the evaluation and identification of potential mitigation measures for each environmental issue area included in Chapter 2.0, Significant Environmental Effects of the Proposed Project and Chapter 3.0, Environmental Effects Found Not to Be Significant.

S.4 ISSUES TO BE RESOLVED BY THE DECISION-MAKING BODY

The San Diego County Planning Commission serves as the decision-making body for MUPs; however, the proposed project requires a Fire Services Agreement, which must be approved by the County Board of Supervisors. Therefore, for the proposed project, the Board of Supervisors is the decision-making body for the MUP. The Planning Commission will make a recommendation on the proposed project to the Board of Supervisors. Issues to be resolved by the Board of Supervisors include (1) how to mitigate the significant effects of the proposed project; (2) whether to reject or approve one of the alternatives to the proposed project and other environmental findings; and (3) whether to reject or approve the proposed project. The Board of Supervisors must adopt detailed findings on the feasibility of mitigation measures that substantially lessen or avoid the significant effects of the project on the environment.

In addition to mitigation measures, the Board of Supervisors will decide whether to adopt the proposed project or any of the project alternatives that would feasibly attain most of the project objectives while avoiding or substantially reducing any of the significant impacts of the proposed project.

Because this EIR has identified adverse environmental effects that are unavoidable, the Board of Supervisors must also determine whether the adverse environmental effects are considered acceptable with consideration given to economic, social, technological, and other relevant benefits of the proposed project pursuant to CEQA Section 15093. Specifically, the proposed project would have significant and unavoidable impacts related to Aesthetics. The Board of Supervisors would prepare a statement of overriding considerations as described in CEQA Section 15093 to reflect the ultimate balancing of competing project objectives if the Board of Supervisors decides to approve the proposed project, proposed project alternatives, or components of either, which have the potential to cause one or more significant effects on the environment.

S.5 PROJECT ALTERNATIVES

Section 15123(b)(3) of the State CEQA Guidelines requires that an EIR summary identify the choice among project alternatives. Alternatives to the project are discussed in detail in Chapter 4.0, Alternatives, of this EIR in accordance with Section 15126.6 of the State CEQA Guidelines. Alternatives required to be considered under CEQA are those that would avoid or substantially lessen one or more of the significant environmental effects identified during evaluation of the proposed project. State CEQA Guidelines Section 15126.6(a) states that an EIR shall describe a range of reasonable alternatives. As evaluated throughout Chapter 2.0 of this EIR, the significant impacts of the project prior to implementation of mitigation measures would occur in the following environmental issues areas: Aesthetics, Biological Resources, Cultural Resources, Hydrology and Water Quality, Land Use and Planning, and Tribal Cultural Resources.

S.5.1 Proposed Project Alternatives

CEQA Section 15126.6(a) requires an EIR to "describe a reasonable range of alternatives to a project, or to the location of a project, which could 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." Therefore, the analyzed alternatives were examined for their ability to reduce the

project's significant environmental impacts. Chapter 4.0 of this EIR identifies, describes, and evaluates the following three alternatives:

- **No Project/No Build Alternative**. Section 15126.6(e) of the State CEQA Guidelines requires analysis of the No Project/No Build Alternative. In the No Project/No Build Alternative, implementation of the project would not occur. No project-related construction or ground disturbance activities would occur, and there would be no changes to the existing land use types or operational characteristics of the project site. None of the impacts associated with the construction, operation, maintenance, and future decommissioning of the project to any of the resources identified and discussed in Chapter 2.0 would occur.

- **Visual Buffer Alternative**. The Visual Buffer Alternative would remove approximately 50 acres of solar arrays from the northernmost portion of the project site within Area A-2. The 50 acres of solar arrays would be relocated to south of Area A-1, directly west of Tule Jim Lane. This relocation would move arrays south of the ridgeline that runs west to east and bisects Areas A-2 and A-1. The project site slopes upward in elevation by an average of 8% from the northern project boundary on Jewel Valley Way to the ridgeline. Under the Visual Buffer Alternative, the fencing, landscaping, and solar arrays would be set back at least 800 feet from Jewel Valley Way to the north. The relocation would provide a visual and topographical buffer between the proposed project and State Route 94, Jewel Valley Road. The Visual Buffer Alternative would include similar numbers of PV modules as the proposed project and generate the same amount of electricity. The BESS, switchyard, gen-tie line, and other project components would be the same as the project. The length of construction may be slightly reduced under this alternative, but the daily construction would remain the same as the proposed project.
- **Reduced Development Alternative**. Under the Reduced Development Alternative, the development footprint would be 538 acres, a reduction of 50 acres from the proposed project. This alternative would remove approximately 50 acres of solar arrays and infrastructure in the northern portion of the project (Areas A-1 and A-2). This reduction in development footprint would remove solar arrays from the northern side of the ridgeline and provide a visual buffer between the proposed solar facility, Old Highway 80, I-8, and the private properties, as well as a noise buffer from residential uses during construction and operations. This reduction in PV modules would reduce the amount of energy generated by this alternative. The Reduced Development Alternative would generate 90 MW compared to the proposed project's generation of 100 MW, which is a reduction of 10 MW. The BESS, switchyard, substation, gen-tie line, and other project components would be the same as the proposed project.

S.5.2 Environmentally Superior Alternative

The State CEQA Guidelines require an analysis of alternatives to identify an Environmentally Superior Alternative among the alternatives evaluated in the EIR. The Environmentally Superior Alternative is the alternative that would minimize adverse impacts on the environment. Based on the evaluation of the alternatives in this chapter and the comparison of impacts, as discussed in Chapter 4.0, Alternatives, both the Visual Buffer Alternative and the Reduced Development Alternative would minimize the project's adverse impacts on the environment in a similar manner; however, the Reduced Development Alternative reduces the project's adverse impacts to a further degree than the Visual Buffer Alternative. As directed by the State CEQA Guidelines Section 15126.6(e)(2):

- "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Therefore, the Reduced Development Alternative would be the Environmentally Superior Alternative, because it would be the built alternative that minimizes the project's adverse impacts on the environment. Compared to the project, the Reduced Development Alternative would have decreased impacts to aesthetics and would have decreased impacts to biological resources, cultural resources, hydrology and drainage patterns, and construction noise due to decreased earthwork and grading activities. However, mitigation would still be required of the Reduced Development to reduce these impacts to less than significant, as for the proposed project. While the Reduced Development Alternative would meet five of the stated project objectives, it would not meet the objective (Objective 1) of the project to maximize the solar energy generation of the project site, and it would only partially meet the objective (Objective 4) to provide a utility-scale solar energy project that improves electrical reliability for the San Diego region by providing a source of local generation as near as possible to existing SDG&E transmission infrastructure.

Refer to Chapter 4.0, Alternatives, for a discussion of the environmental effects of the alternatives compared to the proposed project, and the relationship of the alternatives to the project objectives.

Table S-1. Summary of Significant Effects and Mitigation Measures

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
2.1 Aesthetics			
Impact AE-1: Visual Character and Quality	Significant	No feasible mitigation measures have been identified to reduce the visual impacts of the project to a less than significant level	Significant and unavoidable
Impact AE-2: Valued Visual Character and Image of Neighborhood or Community	Significant	No feasible mitigation measures have been identified to reduce the visual impacts of the project to a less than significant level	Significant and unavoidable
Impact AE-3: Focal and Panoramic Vistas	Significant	No feasible mitigation measures have been identified to reduce the visual impacts of the project to a less than significant level	Significant and unavoidable
Impact AE-CU-1: Cumulative, Visual Character and Quality	Significant	No feasible mitigation measures have been identified to reduce the visual impacts of the project to a less than significant level	Significant and unavoidable
Impact AE-CU-2: Cumulative, Valued Visual Character and Image of Neighborhood or Community	Significant	No feasible mitigation measures have been identified to reduce the visual impacts of the project to a less than significant level	Significant and unavoidable
Impact AE-CU-3: Cumulative, Focal or Panoramic Vistas	Significant	No feasible mitigation measures have been identified to reduce the visual impacts of the project to a less than significant level	Significant and unavoidable
2.2 Biological Resources			
Impact BI-SP-1: Short-term direct to County List A and B plants	Significant	**M-BI-1 Biological Monitoring.** 1. To prevent inadvertent disturbance to sensitive resource areas outside the approved area of impact, a County-approved biologist (Project Biologist) shall be contracted to perform biological monitoring during grading, clearing, grubbing, trenching, construction, and decommissioning activities. The contract for biological monitoring will be provided to the County by the Applicant and shall include an agreement that this will be completed, and a memorandum of understanding (MOU) between the biological consulting company and the County shall be executed. The contract shall include a cost estimate for the monitoring work and reporting. a. The Project Biologist shall perform the monitoring duties before, during, and after construction pursuant to the most current version of the County guidelines (County of San Diego 2010b). In addition to performing monitoring duties pursuant to the most current version of the County guidelines, the Project Biologist shall also perform the following duties: i. Conduct required preconstruction surveys as applicable and outlined in M-BI-5 below. ii. Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas prior to	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		clearing, grubbing, or grading and clarifying that the Project Biologist has the authority to halt work that could harm or harass a protected species. Worker Environmental Awareness Program training will be provided by the Project Biologist for minimizing harm to or harassment of wildlife encountered during construction with the contractor and other key construction personnel prior to clearing, grubbing, or grading. iii. Review the construction area in the field with the contractor in accordance with the final grading plan and conduct a field review of the staking to be set by the surveyor, designating the limits of all construction activity prior to clearing, grubbing, or grading. iv. Monitor vegetation clearing, grubbing, and grading to ensure against direct and indirect impacts on biological resources that are intended to be protected and preserved. v. Flush special-status species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities. If brush-clearing and earthmoving activities take place within the bird breeding season, the process outlined in M-BI-5 will be followed. vi. Verify that grading plans include a stormwater pollution prevention plan (SWPPP) (if required pursuant to provisions of the State Water Resources Control Board 2009-0009-DWQ Construction General Permit, or equivalent applying the standards set forth in the County of San Diego Stormwater Standards Manual) to address hydrology impacts; see M-BI-6. vii. Periodically monitor the construction site to see that dust is minimized according to the Fugitive Dust Control Plan and that temporarily impacted areas are revegetated as soon as possible. viii. Periodically monitor the construction site to verify that light fixtures are directed away from open space and are shielded. ix. Monitor the construction site so that cover and/or escape routes for wildlife from excavated areas are provided daily during vegetation clearing, grubbing, and grading. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighted down with sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and prior to sealing the exposed area at the end of the day) by a qualified biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route. x. Except as stated otherwise herein, biological monitoring is daily during vegetation clearing, grubbing, and grading. Once the PV field construction commences, the monitoring shall be weekly.	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		b. The cost of the monitoring shall be added to the grading bonds or bonded separately with County Planning and Development Services (PDS). **Documentation:** The Applicant shall provide a copy of the biological monitoring contract, cost estimate, and MOU to the PDS. Additionally, the cost amount of the monitoring work shall be added to the grading bond cost estimate. **Timing:** In each phase, prior to approval of any grading and or improvement plans and issuance of any grading or construction permits. **Monitoring:** The PDS shall review the contract, MOU, and cost estimate or separate bonds for compliance with this condition. The cost estimate should be forwarded to the PDS project manager, for inclusion in the grading bond cost estimate, and grading bonds. The County Department of Public Works (DPW)/PDS shall add the cost of the monitoring to the grading bond costs. 2. To ensure that the biological monitoring occurs during the grading phase of the project, weekly monitoring logs will be provided to the Applicant and PDS project manager, and a final biological monitoring report shall be prepared. The Project Biologist shall prepare the final biological monitoring report. The reports shall substantiate the supervision of the grading activities and confirm that grading or construction activities did not impact any additional areas or any other sensitive biological resources. The final report shall conform to County guidelines (County of San Diego 2010b) and include the following items: a. Photos of the temporary fencing or flagging that was installed during the trenching, grading, or clearing activities b. Monitoring logs showing the date and time that the monitor was on-site c. Photos of the site after the grading and clearing activities **Documentation:** The Project Biologist shall prepare the final report and submit it to the PDS for review and approval. **Timing:** Prior to any occupancy, final grading release, or use of the premises in reliance of this permit, the final report shall be approved. **Monitoring:** The PDS shall review the final report for compliance with this condition and the report format guidelines. Upon approval of the report, PDS shall inform DPW that the requirement is complete, and the bond amount can be relinquished. If the monitoring was bonded separately, then PDS shall inform the bonding entity to release the bond back to the Applicant. 3. Compliance with this measure shall be required during decommissioning activities. **M-BI-2** **Temporary Construction Fencing.** Prior to issuance of permits in each phase, including clearing, grubbing, grading, and/or construction permits, the Project Applicant or its designee shall install fencing wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the Project Biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on plans. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence to the satisfaction of the Director of the San Diego County	

<table>
<tr><th>Impact</th><th>Impacts Prior to Mitigation</th><th>Mitigation Measures</th><th>Impacts Following Mitigation</th></tr>
<tr><td></td><td></td><td>PDS (or designee) that work was conducted as authorized under the approved permits and associated plans.</td><td></td></tr>
<tr><td>Impact BI-SP-2: Long-term direct impacts to County List A and B plants</td><td>Significant</td><td>M-BI-3 Habitat Preservation. To mitigate for impacts to sensitive vegetation communities, habitat for plant and wildlife species, and special-status plant and wildlife individuals, the Applicant shall provide an off-site biological open space easement (see M-BI-4 regarding the resource management plan [RMP] for the mitigation site). To protect sensitive biological resources, pursuant to the ECMSCP, RPO, and CEQA, a biological open space easement will be granted over 447.93 acres of sensitive vegetation communities, special-status plant species, and habitat for special-status species. The project is estimated to impact sensitive vegetation communities that require mitigation as summarized in Table 10 of the Biological Resources Report (see below).
<table>
<tr><th>Habitat / Vegetation Community</th><th>Existing (acres)</th><th>Impacts (acres)</th><th>Off-site Impacts (acres)</th><th>Impact Neutral (acres)</th><th>Total Impacts (acres)</th><th>Mitigation Ratio</th><th>Mitigation Required (acres)</th><th>Preserved On-site (acres)</th><th>Off-site Mitigation (acres)</th></tr>
<tr><td>Phase 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Granitic Northern Mixed Chaparral (37131)</td><td>99.58</td><td>92.54</td><td>0</td><td>7.04</td><td>92.54</td><td>0.5:1</td><td>46.27</td><td>0</td><td>46.27</td></tr>
<tr><td>Redshank Chaparral (37300)</td><td>24.53</td><td>24.53</td><td>0</td><td>0</td><td>24.53</td><td>1:1</td><td>24.53</td><td>0</td><td>24.53</td></tr>
<tr><td>Granitic Chamise Chaparral (37210)</td><td>3.03</td><td>3.03</td><td>0</td><td>0</td><td>3.03</td><td>0.5:1</td><td>1.52</td><td>0</td><td>1.52</td></tr>
<tr><td>Montane Buckwheat Scrub (37K00)</td><td>1.97</td><td>1.97</td><td>0</td><td>0</td><td>1.97</td><td>1:1</td><td>1.97</td><td>0</td><td>1.97</td></tr>
<tr><td>Field/Pasture (18310)</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0.5:1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Big Sagebrush Scrub (35210)</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>2:1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Disturbed (11300)</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>None</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Bare Ground</td><td>2.56</td><td>2.52</td><td>0</td><td>0.04</td><td>2.52</td><td>None</td><td>0</td><td>0</td><td>0</td></tr>
</table></td><td>Less than significant</td></tr>
</table>

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation

Urban/ Developed (12000)	0	0	0	0	0	None	0	0	0
Open Coast Live Oak Woodland (71161)	0.32	0.32	0	0	0.32	3:1	Included in oak root zone mitigation	0	Included in oak root zone mitigation
Non-native Grassland (42200)	0	0	0	0	0	0.5:1	0	0	0
Tamarisk Scrub (63810)	0	0	0	0	0	3:1	0	0	0
Freshwater Seep (45400)	0	0	0	0	0	3:1	0	0	0
Southern Riparian Scrub (63300)	0	0	0	0	0	3:1	0	0	0
Freshwater (64140)	0	0	0	0	0	3:1	0	0	0
Coast Live Oak Woodland (71160)	0	0	0	0	0	3:1	0	0	0
Alkali Marsh (52300)	0	0	0	0	0	3:1	0	0	0
Oak Root Zone*	0.91	0.91	0	0	0.94	3:1	2.82	0	2.82
Total	**131.99**	**124.91**	**0**	**7.08**	**124.91**		**77.11**	**0**	**77.11**
Phase 2									
Granitic Northern Mixed Chaparral (37131)	136.91	126.33	0	49.68	126.33	0.5:1	63.17	0	63.17
Redshank Chaparral (37300)	121.67	119.35	0	2.71	119.35	1:1	119.35	0	119.35

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation

Granitic Chamise Chaparral (37210)	62.04	61.56	0	7.41	61.56	0.5:1	30.78	0	30.78
Montane Buckwheat Scrub (37K00)	52.92	51.14	0	0.07	51.14	1:1	51.14	0	51.14
Field/Pasture (18310)	28.10	27.98	0	0	27.98	0.5:1	13.99	0	13.99
Big Sagebrush Scrub (35210)	15.38	15.38	0	0	15.38	2:1	30.76	0	30.76
Disturbed (11300)	10.01	10.01	0	0	10.01	None	0	0	0
Bare Ground	22.17	21.53	0	0.47	21.53	None	0	0	0
Urban/ Developed (12000)	0.03	0	0	0	0	None	0	0	0
Open Coast Live Oak Woodland (71161)	4.32	4.31	0	0	4.31	3:1	Included in oak root zone mitigation	0	Included in oak root zone mitigation
Non-Native Grassland (42200)	2.49	1.05	0	0	1.05	0.5:1	0.53	0	0.53
Tamarisk Scrub (63810)	0	0	0	0	0	3:1	0	0	0
Freshwater Seep (45400)	0.04	0.04	0	0	0.04	3:1	0.12	0	0.12
Southern Riparian Scrub (63300)	0	0	0	0	0	3:1	0	0	0
Freshwater (64140)	0	0	0	0	0	3:1	0	0	0

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation

Coast Live Oak Woodland (71160)	0	0	0	0	0	3:1	0	0	0
Alkali Marsh (52300)	0	0	0	0.0	0	3:1	0	0	0
Oak Root Zone*	12.47	12.47	0	0	12.47	3:1	37.41	0	37.41
Total	**456.08**	**438.68**	**0**	**60.34**	**438.68**		**347.25**	**0**	**347.25**

*This is an overlay to the vegetation community layer and is not counted toward the total acreage of on-site habitats; it is only used in determining required mitigation.

The biological open space easement shall mitigate for project impacts to sensitive vegetation communities and habitat for wildlife species as shown in Table 10 of the Biological Resources Report (see above), thereby preserving compensatory habitat that provides equal or greater benefit to plant and wildlife species. This biological open space easement will be granted to the County or other approved conservation entity. Granting of this open space authorizes the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. This easement is for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. Granting of this open space authorizes the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. The only exceptions to this prohibition are (1) vegetation clearing by hand, by written order of the fire authority for reduction of an identified fire hazard; (2) activities conducted pursuant to an approved revegetation or RMP; (3) vector control by written order of the County; and (4) construction, use, and maintenance of approved multi-use, non-motorized trails. No trails have been approved as part of this project and would require subsequent environmental review and approval by PDS. Permanent signage indicating the area is a biological open space will be required and will be installed by the developer. As the project is proposed in two phases, two separate open space easements would be dedicated within the 447.93-acre area. The recordation of each open space easement would occur prior to grading of each phase.

Documentation: In each phase, the Applicant shall prepare the draft plats and legal descriptions of the easements, then submit them for preparation and recordation with the County Department of General Services, and concurrence with PDS, and pay all applicable fees associated with preparation of the documents.

Timing: Prior to approval of any plan or issuance of any permit, and prior to use of the premises in reliance of this permit the easements shall be recorded.

Monitoring: The Applicant shall prepare the easement documents and send them to PDS for pre-approval. The PDS shall pre-approve the language and estimated location of the easements before they are released to the Applicant for signature and subsequent

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		recordation. Upon Recordation of the easements, the Applicant shall forward a copy of the recorded documents to PDS for satisfaction of the condition. **M-BI-4** **Resource Management Plan (RMP).** To provide for the long-term management of the proposed on-site biological open space, an RMP will be prepared and implemented (Appendix K). The final RMP cannot be approved until the following has been completed to the satisfaction of the Director of PDS as follows: 1. The plan will be prepared and approved pursuant to the most current version of the County's Report Format and Content Requirements for Biological Resources (County of San Diego 2010b). 2. The habitat land to be managed will be owned by a land conservancy or equivalent. 3. Open space easements will be dedicated to the County in perpetuity, unless conveyed to another public agency subject to approval by the Director of PDS. 4. A resource manager will be selected and approved, with evidence provided demonstrating acceptance of this responsibility. 5. The RMP funding mechanism to fund annual costs for basic stewardship shall be identified and approved by the County. The RMP funding mechanism will be identified and adequate to fund annual costs for implementation; typically determined by a Property Analysis Record as a non-wasting endowment. 6. A contract between the Applicant and County will be executed for the implementation of the RMP. 7. The final RMP shall have project-specific requirements for the following mitigation implementation and monitoring measures: a. Special-status plant species mitigation 8. Goals: The final RMP will accomplish the following: a. Preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the biological open space. b. Provide 2:1 replacement of Jacumba milk-vetch, long spined spineflower, and Tecate tarplant, and 1:1 replacement of sticky geraea and desert beauty per the attached Conceptual Revegetation Plan (Appendix L of the Biological Resources Report). If Jacumba milk-vetch, long-spined spineflower, Tecate tarplant, sticky geraea, and desert beauty are transplanted or established from seed collected from individuals within the project footprint, then success of this Mitigation Program will be achieved for Phase 1 when at least 292 Jacumba milk-vetch, 336 sticky geraea, and 769 desert beauty are documented within the off-site biological open space easement during 1 or more years in the 3-year monitoring period. Similarly, success of the Mitigation Program will be achieved for Phase 2 when 2,104 Jacumba milk-vetch, 100 long-spined spineflower, 856 Tecate tarplant, 1,042 sticky geraea, and 74 desert beauty are documented within the open space. **Documentation:** The Applicant shall prepare an RMP and submit it to PDS and pay all applicable review fees.	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		Timing: Prior to approval of any plan or issuance of any permit, and prior to use of the premises in reliance on this permit, the RMP shall be approved. **Monitoring:** The PDS shall review the RMP for compliance with the content guidelines, the conceptual RMP, and this condition.	
Impact BI-SP-3: Long-term direct impact to County List C and D plants	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant
Impact BI-SP-4: Short-term indirect impact to County List A and B plants	Significant	Implement Mitigation Measures **M-BI-1, M-BI-2, and:** **M-BI-6 Biological Monitoring of Stormwater Pollution Prevention Plan (SWPPP) Implementation.** A SWPPP shall be prepared that meets all County requirements. Implementation of the SWPPP shall protect habitats and special-status species adjacent to the project during construction and decommissioning activities. The items below shall be included in the SWPPP, and the Project Biologist shall verify that they are implemented during construction and decommissioning monitoring: 1. No planting or seeding of invasive plant species on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region. 2. Dust control fencing is in place and intact if fencing is required. 3. Construction activity is located outside of jurisdictional WOTUS/WOS except as authorized by applicable law and permit(s), including permits and authorizations approved by the USACE, CDFW, and Water Board. 4. Silt-settling basins installed during the construction process are located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes. Design of drainage facilities shall incorporate long-term control of pollutants and stormwater flow to minimize pollution and hydrologic changes. 5. Temporary structures, staging, and storage areas for construction equipment and/or materials are located outside of jurisdictional waters, including wetlands and riparian areas. 6. No material stockpiles, debris, bark, slash sawdust, rubbish, cement, concrete or washing thereof, oil, or petroleum products are stored where they may be washed by rainfall or runoff into jurisdictional WOTUS or WOS. 7. When construction operations are completed, excess materials or debris have been removed from the work area. 8. No equipment maintenance is performed within or near jurisdictional WOTUS/WOS where petroleum products or other pollutants from the equipment may enter these areas. 9. Fully covered trash receptacles that are animal-proof and weather-proof are installed and used by the operator to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Littering is prohibited, and removal of trash	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		from construction areas daily is required. All food-related trash and garbage are removed from construction sites daily. 10. There are no pets on or adjacent to construction sites. 11. Speed limits in and around all construction areas are enforced so that vehicles do not exceed 15 mph on unpaved roads and the right-of-way accessing the construction site, or 10 mph during the night. **Documentation**: The permittee shall submit a SWPPP for review and approval by the County of San Diego biologist. **Timing**: The following actions shall occur throughout the duration of construction for each phase. **Monitoring**: The County of San Diego shall review the SWPPP and ensure its implementation. **M-BI-7** **Prevention of Chemical Pollutants.** Weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County agriculture commissioner. The application of herbicides shall be in compliance with all federal and state laws and regulations under the prescription of a licensed Pest Control Adviser with at least 2 years of experience and implemented by a licensed applicator. Where manual and/or mechanical methods are used, disposal of the plant debris shall follow the regulations set by the County agriculture commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the Pest Control Adviser, the County agriculture commissioner, and the California Invasive Plant Council, with the goal of controlling populations before they start producing seeds. During project construction, operation, and decommissioning, all areas that use chemicals that are potentially toxic or impactive to sensitive habitats or plants shall incorporate best management practices (e.g., avoid applications during or before rain events and avoid placing materials close to sensitive habitats) on-site to reduce impacts caused by the application and/or drainage of such materials within the development footprint. In addition, use of rodenticides and pesticides shall not be allowed. **Documentation:** The permittee shall assume responsibility pursuant to this condition. **Timing:** Upon establishment of use, the condition shall apply during the term of this permit for each phase. **Monitoring:** The PDS is responsible for enforcement of this permit.	
Impact BI-SP-5: Long-term indirect impacts to County List A and B plants	Significant	Implement Mitigation Measures **M-BI-3, M-BI-4 M-BI-7 and:** **M-BI-8** **Prevention of Invasive Plant Species.** A County of San Diego-approved plant list shall be used for areas immediately adjacent to open space. A hydroseed mix that incorporates native species, is appropriate to the area, and is free from invasive species shall be used for landscaped areas adjacent to the biological open space. The PDS landscape architect shall require that all final landscape plans comply with the following: no invasive plant species, as included on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region shall be included, and the plant palette shall be composed of native species that do not require high irrigation rates. The Project Biologist shall periodically check landscape products for compliance with these	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		requirements. Planting, seeding, and weed control for the mitigation site are discussed in the RMP. **M-BI-9** **Operations and Maintenance Signage.** Signage shall be posted at all entrances to the facility stating that operations and maintenance personnel shall be prohibited from the following: 1. Harming, harassing, or feeding wildlife and/or collecting special-status plant or wildlife species 2. Smoking 3. Traveling (either on foot or in a vehicle) outside of the solar facility in undisturbed portions of the project site 4. Having pets on the project site 5. Littering 6. Remaining at the facility after daylight hours unless conducting operations and maintenance activities 7. Exceeding normal nighttime operation noise and lighting **M-WF-1** **Fire Protection Plan**. The following items ensure adequate fire mitigation, access, and safety: 1. Six 10,000-gallon water tanks shall be available on-site: one tank shall be at each of the two entrances and one tank shall be located by each battery energy storage system (BESS); the other two shall be spread strategically across the project site. Each tank shall be labeled “Fire Water: 10,000 gallons” with reflective paint. All tanks shall have fire department connections available and a minimum 250-gallon-per-minute flow. 2. Increased road width near water storage tanks shall accommodate filling without blocking the road. 3. A Knox Box shall be placed at every gated project entrance to allow emergency service resources to access the site. 4. A lighted map identifying equipment and structures shall be available at every project entrance. 5. The project has adequate emergency response according to land use designation, ensured with a Fire Services Agreement. 6. There shall be a built-in heat detection and fire protection system and a fire extinguishing system for each BESS in compliance with NFPA Standard 855. The heat and fire detection system shall be linked to an automatic inert gas suppression system within each cabinet. The cabinets shall also have an interior aerosol fire suppression system. 7. An internal perimeter road with an improved width of 24 feet, and internal roads improved to 20 feet and the capability to handle a weight of 75,000 pounds, designed to accommodate fire apparatuses with an inner turning radius of 28 feet, shall provide essential access infrastructure.	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
Impact BI-W-1: Short-term direct impacts to County Group 1 animals	Significant	Implement Mitigation Measures **M-BI-1, M-BI-2, and:** **M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance.** This mitigation measure serves to avoid take of birds protected under the MBTA and California Fish and Game Code during the nesting season (M-BI-5(1)) and trampling or crushing special-status amphibians, reptiles, and mammals ((M-BI-5(2)), and special-status invertebrates (M-BI-5(3)) and (M-BI-5(4)). 1. **Nesting Bird Survey.** To avoid any direct impacts on raptors and/or any migratory birds protected under the MBTA and California Fish and Game Code, removal of habitat that supports active nests on the proposed area of disturbance shall occur outside the nesting season for these species (which is January 15 through August 31, annually). If construction or decommissioning work must occur during the avian breeding season (January 15 to August 31, annually), the Applicant shall do the following: a. In consultation with the County, CDFW, and the USFWS prepare a Nesting Bird Management, Monitoring, and Reporting Plan (NBMMRP) to address avoidance of impacts to nesting birds. The Applicant will submit to the County the NBMMRP (see following for details) for review and approval prior to commencement of the project during the breeding season. The NBMMRP should include the following: i. Nest survey protocols describing the nest survey methodologies ii. A management plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks iii. A monitoring and reporting plan detailing the information to be collected for incorporation into a regular Nest Monitoring Log (NML) with sufficient details to enable USFWS and CDFW to monitor the Applicant's compliance with Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 iv. A schedule for the submittal (usually weekly) of the NML v. Standard buffer widths deemed adequate to avoid or minimize significant project-related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks (i.e., 300 feet for nests of passerines and 500 feet for nests of raptors). The NBMMRP will outline a nest buffer reduction process to be approved by USFWS, CDFW, and PDS. vi. A detailed explanation of how the buffer widths were determined vii. All measures the Applicant will implement to preclude birds from utilizing project-related structures (i.e., construction equipment, facilities, or materials) for nesting b. Conduct preconstruction nesting bird surveys within 72 hours of construction-related activities; conduct preconstruction survey sweeps immediately prior to ground-disturbing activities; and implement appropriate avoidance measures for identified nesting birds in the NBMMRP. Resurvey, if construction activities are halted for 10 consecutive days.	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		c. Conduct surveys beyond the project site —300 feet for passerine birds and 500 feet for raptors—to determine presence of nesting birds that the project activities may affect. The survey protocols shall include a detailed description of methodologies utilized by CDFW-approved avian biologists to search for nests and describe avian behaviors that indicate active nests. The protocols shall include but are not limited to the size of the project site being surveyed, method of search, and behavior that indicates active nests. d. Each nest identified in the project site shall be included in the NML. The NMLs should be updated daily and submitted to the CDFW weekly. Since the purpose of the NMLs is to allow the CDFW to track compliance, the NMLs shall include information necessary to allow comparison between nests protected by standard buffer widths recommended for the project (300 feet for passerine birds, 500 feet for raptors) and nests whose standard buffer width was reduced by encroachment of project-related activities. The NMLs shall provide a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. The NMLs shall allow for tracking the success and failure of the buffers and would provide data on the adequacy of the buffers for certain species. e. The Applicant will rely on its avian biologists to determine the appropriate standard buffer widths for nests within the project corridor/footprint to employ based on the sensitivity levels of specific species or guilds of avian species. The determination of the standard buffer widths shall be site- and species-/guild-specific and data-driven and not based on generalized assumptions regarding all nesting birds. The determination of the buffer widths shall be developed in the NBMMRP approved by the USFWS, CDFW, and PDS, and will consider the following factors: i. Nesting chronologies ii. Geographic location iii. Existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise) iv. Type and extent of disturbance (e.g., noise levels and quality—punctuated, continual, ground vibrations—blasting-related vibrations proximate to tern colonies are known to make the ground-nesting birds flush the nests) v. Visibility of disturbance vi. Duration and timing of disturbance vii. Influence of other environmental factors viii. Species' site-specific level of habituation to the disturbance Application of the standard buffer widths shall avoid the potential for project-related nest abandonment and failure of fledging and minimize any disturbance to the nesting behavior. If project activities cause or contribute to a bird being flushed from a nest, the buffer must be widened. This measure does not apply to nests that are started on construction equipment or panels or supporting structures.	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		Documentation: The Project Biologist shall prepare the final report and submit it to the PDS for review and approval. **Timing:** Surveys shall be conducted prior to any clearing, grubbing, trenching, grading, or any land disturbances during the avian breeding season. Prior to any occupancy, final grading release, or use of the premises in reliance of this permit, the final report shall be approved. **Monitoring:** The PDS shall review the final report for compliance with this condition and the report format guidelines. Upon approval of the report, PDS shall inform the Applicant that the requirement is complete. 2. **Special-Status Species Preconstruction Surveys and Relocation Plan.** Prior to construction, the Applicant shall develop preconstruction surveys for special-status terrestrial reptiles (e.g., Southern California legless lizard, coast horned lizard, California glossy snake, red-diamond rattlesnake, rosy boa, and San Diego ringneck snake,), small terrestrial mammals (i.e., San Diego black-tailed jackrabbit, Dulzura pocket mouse, northwestern San Diego pocket mouse, pallid San Diego pocket mouse, and southern grasshopper mouse), bats (i.e., pallid bat, greater western mastiff bat, western red bat, small-footed myotis, long-eared myotis), and mule deer, mountain lion, and ringtail documented on-site or with high potential to occur on-site. The plan shall at minimum include the timing and locations where surveys should be conducted; if and species are confirmed, provide the habitat and conditions in the proposed relocation site(s); the methods that would be used for trapping and relocating the individual species; and the method for documenting/recording the species and number of animals relocated. The plan shall be submitted to the County by a qualified biologist prior to any ground-disturbing activities within potentially occupied habitat. **Preconstruction Surveys**. No more than 3 days prior to construction, a qualified biologist shall conduct a preconstruction survey within areas of suitable habitat for special-status species wildlife documented on-site (i.e., Cooper's hawk, sharp-shinned hawk, Bell's sage sparrow, turkey vulture, Southern California legless lizard, coast horned lizard, San Diego black-tailed jackrabbit, San Diego desert woodrat, coastal whiptail, California horned lark, western bluebird, mule deer, and mountain lion) as well as those with high potential to occur (i.e., southern California rufous-crowned sparrow, golden eagle, long-eared owl, red-shouldered hawk, northern harrier, white-tailed kite, prairie falcon, loggerhead shrike, Lewis' woodpecker, California glossy snake, red-diamond rattlesnake, pallid bat, Dulzura pocket mouse, northwestern San Diego pocket mouse, pallid San Diego pocket mouse, greater western mastiff bat, southern grasshopper mouse, mountain quail, rosy boa, San Diego ringneck snake, ringtail, western red bat, small-footed myotis, long-eared myotis, and monarch butterfly). The biologist shall look for special-status species that may be located within or immediately adjacent to the project work areas, as permitted by access. If determined by the qualified biologist that, based on the construction activities, time of year, and presence/location of special-status wildlife species, relocation of special-status wildlife species is necessary, relocation will occur to nearby undisturbed areas within suitable habitat in the on-site open space easement as specified in the plan and a California scientific collecting permit (SCP) (if applicable), but as close to their origin as possible	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		(consistent with the approved plan). The biologist relocating the species shall possess a California SCP to handle these species if required by applicable CDFW regulations. A qualified biologist shall be present during initial ground-disturbing activities (i.e., vegetation removal) immediately adjacent to or within the vegetation communities and/or disturbed habitats that could support populations of special-status wildlife species to monitor vegetation removal and topsoil salvaging and stockpiling, where applicable. If special-status wildlife species are detected in the work area during biological monitoring, the individual(s) will be documented and relocated as per the approved Plan and in accordance with the SCP conditions as applicable. **Documentation:** The Project Biologist shall prepare the final survey report and relocation plan and submit it to the PDS for review and approval. **Timing:** Surveys shall be conducted prior to any clearing, grubbing, trenching, grading, or any land disturbances. Prior to final grading release, or use of the premises in reliance of this permit for each phase, the final survey report and Relocation Plan shall be approved. **Monitoring:** The PDS shall review the final survey report and Relocation Plan for compliance with this condition and the report format guidelines. Upon approval of the report, PDS shall inform the Applicant that the requirement is complete, and the bond amount can be relinquished. 3. To avoid impacts to nesting birds and other special-status wildlife species during decommissioning, the Project operator shall be required to implement the measures outlined in subsections (1) and (2) prior to undertaking decommissioning activities. 4. **Crotch's bumblebee Habitat Assessment and Surveys.** This mitigation measure shall only be required if Crotch's bumble bee remains as a candidate state endangered species or is listed as a state endangered species at the time of project construction. **a. Habitat assessment.** If not previously completed, or if surveys are no longer valid for any reason, a biologist with demonstrated experience with Crotch's bumblebee will conduct a desktop habitat assessment to determine the presence of suitable habitat for Crotch's bumble bee within the project site. This assessment will evaluate historical and current species distribution, proximity to the last known sighting, and potential foraging (including native and non-native), nesting, and overwintering resources. Field verification surveys will be conducted during the floral blooming period, typically April through August, and will include an in-person project site observation, quantification of blooming vegetation (e.g., percent cover or a scale), and an assessment of plant diversity. **Documentation:** The qualified Biologist shall prepare the final habitat assessment report and submit it to the CDFW for review and approval for each phase. b. **Focused Surveys.** If the habitat assessment and field verification survey indicate a high likelihood for take of the species, occupancy will be assumed, or, a proposed survey protocol will be submitted to the Wildlife Agencies for review. If surveys are proposed, a survey methodology will be designed that is project- and site-specific, including the qualifications of the biologist conducting the	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		surveys. The survey methodology will follow the general guidelines and best practices outlined in CDFW's "Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species" (June 6, 2023). If surveys are conducted andoccupied Crotch's bumble bee habitat within or bordering the project site is documented, or if Crotch's bumble bee is assumed to be present based on the habitat assessment, pre-construction surveys of such habitat for active bee nest colonies shall be required no more than 5 days prior to any ground disturbance activities that occur between February 15 and September 15. The project biologist will establish, monitor, and maintain a no-work buffer around any active nest colonies identified during surveys. The size and configuration of the no-work buffer will be based on the best professional judgment of the project biologist in consultation with CDFW. The buffer should provide at least 50 feet of clearance around nest entrances. Construction activities should not occur within the no-work buffers until the colony is no longer active. To determine that a nest is no longer active, the nest will be observed for a minimum of 60 minutes each day across multiple days (three days minimum) during suitable flight weather (i.e., ambient air temperature between 60- and 90-degrees Fahrenheit, winds under 10 mph, and no precipitation heavier than a drizzling rain). If no bees are seen flying in or out of the nest it will be determined that the next season's queens have dispersed from the colony and the nest is no longer active. If Crotch's bumble bee is found on-site during habitat assessments or protocol surveys, the project proponent shall: i. Notify CDFW of the species' presence within 48 hours and consult with the CDFW to determine whether the project needs to obtain an ITP, and adhere to the following minimum conditions: ii. Implement Immediate Avoidance and Minimization Measures: 1. Conduct a nest search within suitable habitat areas identified during surveys 2. Establish and clearly mark no-work buffer zones of at least 50 feet around active nest colonies if found 3. Avoid all ground-disturbing activities within these buffer zones during the active bee season (February 15 through September 15) iii. Have a monitor present during initial ground disturbance and vegetation clearance. Compensatory mitigation for permanent direct impacts to suitable Crotch's bumble bee habitat shall be offset through compensatory mitigation, which may include, but is not necessarily limited to, on-site or off-site habitat preservation, enhancement, restoration, and/or creation at a ratio of no less than 1:1. If an incidental take permit covering Crotch's bumble bee is issued for the project, the measures and mitigation ratios specified in that permit shall take precedence over those outlined in this report. 5. **Western Spadefoot Avoidance and Mitigation.** To minimize impacts, project design shall prioritize avoidance of areas where there is potential for western spadefoot	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		occurrence, to the extent feasible. Avoidance efforts will focus on protecting both permanent and temporary wetlands that are suitable for western spadefoot breeding, including natural and altered water features that retain water for at least 30 days. These habitats include, but are not limited to: • Vernal pools • Ephemeral streams • Artificial ponds (e.g., livestock, sedimentation, flood control) • Irrigation and roadside ditches • Roadside puddles, tire ruts, and borrow pits. In addition, adjacent upland habitats—which include scrubland, oak woodlands, chaparral, and grasslands—within 1,500 feet of breeding sites, which provide foraging areas, movement corridors, and overwintering locations, shall also be avoided. Contingent upon the western spadefoot's formal listing under the ESA, the project will initiate formal consultation with the U.S. Fish and Wildlife Service (USFWS) to develop and implement scientifically appropriate mitigation strategies. These strategies may include, but are not limited to, establishing species-specific avoidance buffer distances and implementing targeted exclusionary fencing to minimize potential adverse impacts on the species.	
Impact BI-W-2: Impacts to active nests or young of nesting County Group 1 animals	Significant	Implement Mitigation Measures **M-BI-1 and M-BI-5.**	Less than significant
Impact BI-W-3: Removal of suitable habitat of County Group 1 animals	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant
Impact BI-W-4: Impacts to active nests or young of nesting County Group 2 animals	Significant	Implement Mitigation Measures **M-BI-1 and M-BI-5.**	Less than significant
Impact BI-W-5: Long-term direct impacts to County Group 2 animals	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant
Impact BI-W-6: Long-term direct impacts to Golden Eagles	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant
Impact BI-W-7: Loss of foraging habitat for raptors	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
Impact BI-W-8: Loss of Core Wildlife Area	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant
Impact BI-W-9: Short-term indirect impacts to Special-status Animals Detected or with High Potential to Occur	Significant	Implement Mitigation Measures **M-BI-1, M-BI-2, M-BI-5, M-BI-6, and:** **M-BI-10 Noise Reduction.** Construction- and decommissioning-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) adjacent to breeding/nesting areas shall incorporate noise-reduction measures (described below) or be curtailed during the breeding/nesting season of sensitive bird species. 1. Trucks and other engine-powered equipment shall be equipped with noise reduction features, such as mufflers and engine shrouds, which are no less effective than those originally installed by the manufacturer. 2. Trucks and other engine-powered equipment shall be operated in accordance with posted speed limits and limited engine idling requirements. 3. Usage of truck engine exhaust compression braking systems shall be limited to emergencies. 4. Back-up beepers for all construction equipment and vehicles shall be adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration's (OSHA's) and the California Division of Occupational Safety and Health's safety requirements are not violated. These settings shall be retained for the duration of construction activities. 5. Vehicle horns shall be used only when absolutely necessary, as specified in the contractor's specifications. 6. Radios and other noise-generating "personal equipment" shall be prohibited. If construction-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) occur during the period of January 15 through August 31, a County-approved biologist shall conduct preconstruction surveys in suitable nesting habitat adjacent to the construction area to determine the location of any active nests in the area (see M-BI-5).	Less than significant
Impact BI-W-10: Long-term indirect impacts to Special-status Animals Detected or with High Potential to Occur	Significant	Implement Mitigation Measures **M-BI-3, M-BI-4, M-BI-7, M-BI-8, M-BI-9 and M-WF-1.**	Less than significant
Impact BI-V-1: Short-term direct impacts to Special-status Upland Vegetation Communities	Significant	Implement Mitigation Measures **M-BI-1 and M-BI-2**.	Less than significant
Impact BI-V-2: Long-term direct impacts to Special-status Upland Vegetation Communities	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
Impact BI-JR-1: Short-term direct impacts to Jurisdictional Resources	Significant	Implement Mitigation Measures **M-BI-1, M-BI-2, and:** **M-BI-11 Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways.** 1. **Erosion Control Around RPO Wetland Buffers:** Actively implement erosion control measures to prevent erosion and the discharge of sediment and pollutants into all San Diego County Wetland Protection Ordinance wetlands and their protection buffers (50-feet) within the project during project activities. Erosion controls shall be made from biodegradable materials where applicable (mulch) and monitored and repaired, if necessary, to ensure maximum erosion, sediment, and pollution control and removed at the time of project completion. 2. **Flagging RPO Wetland Buffers:** Contractor shall flag all San Diego County Wetland Protection Ordinance (RPO) wetland buffers (50-feet) for avoidance. No work including site access shall occur within the RPO wetland buffers. 3. **Waters Agency Coordination:** Coordinate with all applicable agencies with potential jurisdiction over aquatic resources within the project. If necessary, submit and obtain waters permits prior to project construction. 4. **Waters Permits:** If applicable, all waters permits (printed or electronic) shall be on-site during all project activities, and all personnel shall be aware of and understand all applicable permit conditions. The work must comply with the permitted scope of work and all permit conditions. Ensure coordination with the applicable agencies if permits require advanced notification to start work.	Less than significant
Impact BI-JR-2: Long-term direct impacts to Jurisdictional Resources	Significant	Implement Mitigation Measures **M-BI-3, M-BI-4, and M-BI-11.**	Less than significant
Impact BI-JR-3: Short-term indirect impacts to Jurisdictional Resources	Significant	Implement Mitigation Measures **M-BI-1, M-BI-2, M-BI-6, M-BI-7, and M-BI-11.**	Less than significant
Impact BI-JR-4: Long-term indirect impacts to Jurisdictional Resources	Significant	Implement Mitigation Measures **M-BI-3, M-BI-4, M-BI-7, M-BI-8, M-WF-1, and M-BI-11.**	Less than significant
Impact BI-V-3: Short-term indirect impacts to Special-status Upland Vegetation Communities	Significant	Implement Mitigation Measures **M-BI-1, M-BI-2, M-BI-6, M-BI-7, and M-BI-9.**	Less than significant
Impact BI-V-4: Long-term indirect impacts to Special-status Upland Vegetation Communities	Significant	Implement Mitigation Measures **M-BI-3, M-BI-4, M-BI-6, M-BI-7, M-BI-8, M-BI-9, and M-WF-1.**	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
Impact BI-WM-1: Short-term direct impacts to Foraging and Breeding Habitat	Significant	Implement Mitigation Measures **M-BI-1 and M-BI-2.**	Less than significant
Impact BI-WM-2: Long-term direct impacts to Foraging and Breeding Habitat	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant
Impact BI-WM-3: Short-term and long-term indirect impacts to Foraging and Breeding Habitat	Significant	Implement Mitigation Measures **M-BI-1, M-BI-2, M-BI-5, M-BI-6, M-BI-9, and M-BI-10.**	Less than significant
Impact BI-WM-4: Short-term and long-term direct impacts to Wildlife Connectivity	Significant	Implement Mitigation Measures **M-BI-3 and:** **M-BI-12 Wildlife Corridor.** In order to comply with Figure 15 of the Biological Resources Report depicting wildlife corridors, a minor deviation must be provided and approved to reflect the project changes. Prior to approval of any plan in any phase, issuance of any permit, and prior to use of the premises in reliance of this permit, a minor deviation must be submitted and approved with updated plans to the San Diego County PDS. The Applicant shall submit updated plans to reflect Figure 15 or as deemed appropriate by the County of San Diego and all applicable Wildlife Agencies (as deemed by the County) and gain approval. PDS shall review and approve the minor deviation for compliance with this condition. 1. **Wildlife Corridor Access.** The project shall provide wildlife-friendly fencing to allow for wildlife moving within the project site.	Less than significant
Impact BI-P-1: Short-term direct impacts to Sensitive Habitat Lands	Significant	Implement Mitigation Measures **M-BI-1 and M-BI-2.**	Less than significant
Impact BI-P-2: Long-term direct impacts to Sensitive Habitat Lands	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant
Impact BI-P-3: Short-term indirect impacts to Sensitive Habitat Lands	Significant	Implement Mitigation Measures **M-BI-1, M-BI-2, M-BI-6, M-BI-7, and M-BI-9.**	Less than significant
Impact BI-P-4: Long-term indirect impacts to Sensitive Habitat Lands	Significant	Implement Mitigation Measures **M-BI-3, M-BI-4, M-BI-6, M-BI-7, M-BI-8, M-BI-9, and M-WF-1.**	Less than significant
Impact BI-P-5: Migratory Bird Treaty Act	Significant	Implement Mitigation Measures **M-BI-1 and M-BI-5.**	Less than significant
Impact BI-P-6: Bald and Golden Eagle Protection Act	Significant	Implement Mitigation Measures **M-BI-3 and M-BI-4.**	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
2.3 Cultural Resources			
Impact CR-1: Known Archaeological Resources	Significant	**M-CR-1** **Dedicated Cultural Open Space Easement for Significant Archaeological Resources**. Prior to grading of Phase I, and in order to protect sensitive cultural resources, a Cultural Resource Open Space Easement shall be granted to the County of San Diego (County) as shown on an approved Open Space Easement exhibit. Within Phase I of the project, this easement is for the protection of archaeological sites P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865. Prior to grading of Phase II, and in order to protect sensitive cultural resources, a Cultural Resource Open Space Easement shall be granted to the County as shown on an approved Open Space Easement exhibit. Within Phase II of the project, this easement is for the protection of archaeological sites P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872. The easement prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The sole exceptions to this prohibition are: 1. Implementation of a site-capping plan approved by the Director of Planning and Development Services, if necessary 2. Selective clearing of vegetation by hand to the extent required by written order of the fire authorities for the express purpose of reducing an identified fire hazard 3. Activities required to be conducted pursuant to a revegetation, habitat management, or landscaping plan approved by the Director of Planning and Development Services 4. Vegetation removal or application of chemicals for vector control purposes where expressly required by written order of the Department of Environmental Health, in a location and manner approved in writing by the Director of Planning and Development Services 5. Installation of temporary or permanent fencing for the purpose of preventing inadvertent disturbance of archaeological sites during construction, maintenance, and decommissioning activities. The Applicant shall prepare the legal descriptions of the easements, then submit them for preparation and recordation with the County and pay all applicable fees associated with preparation of the documents prior to the approval of any plan and issuance of any permit. For recordation by separate document, the County Department of General Services shall prepare and approve the easement documents and send them to the County Department of Planning and Development Services for preapproval. Planning and Development Services shall preapprove the language and estimated location of the easements prior to recordation. Upon recordation of the easements the Department of General Services shall forward a copy of the recorded documents to Planning and Development Services for satisfaction of the condition.	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		M-CR-2 **Cultural Resources Treatment Agreement and Preservation Plan**. In order to mitigate for impacts to cultural resources and tribal cultural resources (TCRs), the Applicant shall develop and enter into a Cultural Resources Treatment Agreement and Preservation Plan with the consulting Native American tribes. A Cultural Resources Treatment Agreement and Preservation Plan shall be developed between the Applicant or their representative and the consulting Native American tribes. The Cultural Resources Treatment Agreement and Preservation Plan shall be reviewed and agreed to by the County prior to final signature and authorization. The Cultural Resources Treatment Agreement and Preservation Plan shall include but is not limited to the following: 1. Parties entering into the agreement and contact information. 2. Responsibilities of the Property Owner or their representative, Principal Investigator, archaeological monitors, Kumeyaay Native American monitors, and consulting tribes. 3. Requirements of the Archaeological Monitoring Program including unanticipated discoveries. The requirements shall address grading and grubbing requirements including controlled grading and controlled vegetation removal in areas of cultural sensitivity, analysis of identified cultural materials, and on-site storage of cultural materials. 4. Treatment of identified Native American cultural materials and TCRs. 5. Treatment of Native American human remains and associated grave goods. 6. Incorporation of P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 into dedicated open space in Phase I. Incorporation of P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 into dedicated open space in Phase II. 7. Interim treatment and final internment of Native American cultural soils and materials. 8. Confidentiality of cultural information including location and data. 9. Regulations that apply to cultural resources and TCRs that have been identified or may be identified during project construction. A copy of the implemented agreement shall be submitted to the County for approval, prior to the approval of any plan and issuance of any permit. The County shall review the implemented agreement for compliance this condition. **M-CR-3** **Archaeological and Native American Monitoring**. In order to mitigate for potential impacts to undiscovered buried archaeological resources and human remains, an Archaeological Monitoring Program and potential Data Recovery Program shall be implemented pursuant to the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* and the California Environmental Quality Act (CEQA). This shall be implemented prior to approval of any grading and or improvement plans and issuance of any Grading or Construction Permits, for both phases for the period of time that ground-disturbing activities have the potential to uncover or disturb cultural resources, as determined by the Principal Investigator.	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		A County-approved Principal Investigator known as the "Project Archaeologist" shall be contracted to perform monitoring and a potential Data Recovery Program during all grading, clearing, grubbing, trenching, and earth-disturbing activities for both Phases I and II. The Project Archaeologist shall contract with a Kumeyaay Native American monitor(s) to conduct Native American monitoring for the project. The monitoring program for both Phases I and II shall include the following: 1. Preconstruction a. Contract with a County-approved archaeologist to perform archaeological monitoring and a potential Data Recovery Program during all earth-disturbing activities. The Project Archaeologist shall perform the monitoring duties before, during and after construction. b. Hold a preconstruction meeting to be attended by the Project Archaeologist and Kumeyaay Native American monitor(s) to explain the monitoring requirements. 2. Construction Monitoring a. Both the Project Archaeologist and Kumeyaay Native American monitor(s) are to be on-site during earth-disturbing activities. The frequency and location of monitoring of native soils shall be determined by the Project Archaeologist in consultation with the Kumeyaay Native American monitor. Both the Project Archaeologist and Kumeyaay Native American monitor shall evaluate fill soils to ensure that they are negative for cultural resources, including those that could be identified as TCRs. b. If cultural resources or TCRs are identified: i. Both the Project Archaeologist and Kumeyaay Native American monitor(s) have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery. ii. The Project Archaeologist shall contact the County Archaeologist at the time of discovery. iii. The Project Archaeologist in consultation with the County Archaeologist and Kumeyaay Native American monitor(s) shall determine the significance of discovered resources. iv. Construction activities shall be allowed to resume after the County Archaeologist has concurred with the significance evaluation. v. Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Kumeyaay Native American monitor may collect the cultural material for transfer to a tribal curation facility or repatriation program. c. If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Kumeyaay Native American monitor(s) and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources or Sacred Sites, including TCRs; the	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for nonunique cultural resources. The preferred option is preservation (avoidance). 3. Human Remains a. The Property Owner or their representative shall contact the County Coroner and the Planning and Development Services Staff Archaeologist. b. Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin. If the human remains are to be taken off-site for evaluation, they may be accompanied by the Kumeyaay Native American monitor. c. If 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 by the Property Owner or their representative in order to determine proper treatment and disposition of the remains. d. The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted. e. Public Resources Code Section 5097.98, CEQA 15064.5, and Health and Safety Code 7050.5 shall be followed in the event that human remains are discovered. 4. Rough Grading a. Monitoring Report. Upon completion of rough grading, a monitoring report shall be prepared identifying whether resources were encountered. A copy of the monitoring report shall be provided to the South Coastal Information Center and any culturally affiliated tribe who requests a copy. 5. Final Grading a. Final Report. A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered. A copy of the final report shall be submitted to the South Coastal Information Center and any culturally affiliated tribe who requests a copy. b. The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or tribal curation facility that meets federal standards per 36 Code of Federal Regulations (CFR) 79, or alternatively have been repatriated to a culturally affiliated tribe. c. The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR 79. The Applicant shall provide a copy of the Archaeological Monitoring Contract or letter of acceptance, cost estimate, and memorandum of understanding (MOU) to the County. Additionally, the cost amount of the monitoring work shall be added to the grading bond cost estimate for both Phases I and II.	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		Planning and Development Services shall review the contract or letter of acceptance, MOU, and cost estimate or separate bonds for compliance with this condition. The cost estimate should be forwarded to the County for inclusion in the grading bond cost estimate, and grading bonds and the grading monitoring requirement shall be made a condition of the issuance of the grading or construction permit. **M-CR-4** **Temporary Fencing**. To prevent inadvertent disturbance of archaeological sites, temporary fencing shall be installed around the archaeological sites where they are located within 50 feet of the project area of direct impact (ADI). The temporary fencing shall include the following requirements: 1. Prior to the commencement of any grading and/or clearing in association with the grading and/or improvement plan, temporary construction fencing shall be placed at a distance of 50 feet around the known boundaries of archaeological sites, to protect archaeological sites or portions of sites from inadvertent disturbance. This temporary fencing shall be placed around the following sites in Phase I: P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 adjacent to the project ADI during earth-disturbing activities. This temporary fencing shall be placed around the following sites in Phase II: P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 adjacent to the project ADI during earth-disturbing activities. Temporary fencing shall be installed prior to the preconstruction meeting and any clearing, grubbing, trenching, grading, or ground disturbance during both construction and decommissioning. The temporary fencing shall remain for the duration of project earth-disturbing activities. 2. Temporary fencing shall be required in all locations of the project where proposed grading or clearing is within 50 feet of any archaeological site outside of the project ADI. 3. The placement of such fencing shall be approved by the County. Upon approval, the fencing shall remain in place until the conclusion of grading activities, after which the fencing shall be removed. 4. Installation and maintenance of temporary fencing shall require the presence of monitor(s) (archaeological and Native American) pursuant to **M-CR-3**. 5. A signed and stamped statement from a California Registered Engineer, or licensed surveyor, shall be submitted to Planning and Development Services for approval. The statement shall identify that temporary fencing has been installed in all required locations where grading or clearing is within 50 feet of an archaeological site outside of the project ADI. **M-CR-5** **Permanent Fencing**. To prevent inadvertent disturbance of archaeological sites within the avoidance areas and to the unimpacted portions of the site outside of the ADI, permanent fencing shall be installed at a distance of 50 feet from the boundaries of archaeological sites as indicated on the approved project plans. The fencing shall be a three-strand barbed wire fence with a total height of four feet once constructed to keep an unobstructed view and to keep with the rural character of the region. The installation of the permanent fencing shall occur by Phase.	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		This permanent fencing shall be placed around the following sites in Phase I: P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 adjacent to the project ADI. This permanent fencing shall be placed around the following sites in Phase II: P-37-010476/P-37-034159, P-37-033310, , P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 adjacent to the project ADI. The permanent fencing shall include the following requirements: 1. Installation of permanent fencing shall require the presence of monitor(s) (archaeological and Native American) pursuant to **M-CR-3**. 2. A signed and stamped statement from a California Registered Engineer, or licensed surveyor shall be submitted to Planning and Development Services for approval. The statement shall identify that temporary fencing has been installed in all required locations where grading or clearing is within 50 feet of an archaeological site outside of the project ADI. **M-CR-6** **Long-Term Preservation of Resources.** All operation and maintenance (O&M) and decommissioning activities shall be performed within the proposed project ADI – no ground-disturbing activities shall occur outside the proposed project ADI or in the conservation areas. Employees and contractors performing O&M and decommissioning activities shall receive training or instructions regarding the archaeological and cultural sensitivity of the project site to ensure no inadvertent impacts occur to the potentially significant sites (or portions thereof) that are adjacent to the proposed project ADI.	
Impact CR-2: Undiscovered Archaeological Resources	Significant	Implement Mitigation Measures **M-CR-1, M-CR-2, and M-CR-3.**	Less than significant
Impact CR-3: Human Remains	Significant	Implement Mitigation Measures **M-CR-1, M-CR-2, and M-CR-3.**	Less than significant
2.4 Hydrology and Water Quality			
Impact HY-1: Flood Hazards and Risk of Pollutant Release	Significant	**M-HY-1: Flood Fencing.** Prior to approval of final design plans, the Applicant shall demonstrate to the satisfaction of the County Department of Public Works (DPW) Flood Control through hydrologic and hydraulic analyses, acceptable to DPW Flood Control and performed by a California licensed engineer in accordance with standard engineering practice, that the design features for the perimeter fencing avoids the blockage and/or redirection of storm flows resulting from the accumulation of debris and/or detritus at wash crossings. This can be accomplished through a number of means such as a) use of breakaway fencing perpendicular to flood flows to prevent obstruction and accumulation of debris b) use of fencing that spans washes (without posts) above the anticipated peak flow depth, c) or an alternative design measure that would avoid accumulations of detritus at perimeter fence wash crossings, subject to County approval. The Applicant shall show the proposed fencing design or alternative design measure on the Final Grading Plans. The associated Drainage Study shall contain hydrologic and hydraulic analyses, acceptable to DPW Flood Control and performed by a California licensed engineer in accordance with standard engineering practice, that model the proposed fencing and/or	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures		Impacts Following Mitigation
			design measures and demonstrate that the fencing shall not cause alteration of drainage patterns and/or flood hazards from pre-project conditions. The Drainage Study shall be in compliance with the County Hydrology Manual and the County Hydraulic Design Manual. Prior to the approval of any grading and/or improvement plans and issuance of Grading or Construction Permits, the Drainage Study and Plans shall be approved. The County DPW Flood Control shall review and approve the hydrologic and hydraulic analyses contained in the Drainage Study and the final fencing design and layout to ensure the flood flow is fully mitigated to pre-project conditions.	
2.5 Noise				
Impact N-1: Noise-Sensitive Land Uses Affected by Airborne Noise	Significant	**M-N-1**	**Stationary Equipment.** The project would comply with the County of San Diego's Noise Ordinance Section 36.404 based upon the current proposed layout and the anticipated major noise-producing operating stationary equipment (equipment) deployed for the project. The equipment modeled in the noise analysis report prepared for the EIR (Appendix J.1 of the EIR) was selected as representative technology at the time the report was prepared. The Applicant may propose to use different equipment than what was used to perform the noise modeling in the noise analysis report or propose a change in the equipment layout. If different equipment is selected and/or the layout of equipment is changed subsequent to project approval, the Applicant will be required to submit a revised noise analysis and a revised site plan if needed, as follows: 1. The Project Applicant shall retain a County-approved CEQA Noise Consultant to prepare a new predictive operations noise analysis in accordance with the County of San Diego, Report Format and Content Requirements – Noise (County of San Diego 2009). Any alterations or modifications proposed and approved pursuant to this procedure shall be included in the proposed project design plans. Any proposed equipment selections, equipment duty cycles, project layout alterations, and/or the addition, modification, reduction of the preceding equipment noise limits and measures may be approved, if they are demonstrated to comply at the property line with applicable outdoor hourly Leq noise limits per Section 36.404(a) of the County Noise Ordinance. 2. The above-identified measures shall take place prior to approval of any building plans for the project. Any alterations or modifications proposed and approved pursuant to this procedure shall be included in the proposed project design plans.	Less than significant
Impact N-2: Project-Generated Airborne Noise, Construction and Decommissioning	Significant	**M-N-2**	**Construction Noise Management Plan.** Prior to construction and decommissioning, the Applicant shall prepare a Construction Noise Management Plan (CNMP) which establishes construction activity restrictions in order to reliably achieve compliance with the County's 8-hour 75 dBA Leq standard at the project property lines adjoining existing occupied properties, defined by Section 36.402(m) as "property on which there is a building for which a certificate of occupancy has been issued". The CNMP shall demonstrate compliance with the County Noise Ordinance for avoiding potential impacts caused by operating construction equipment and vehicle noise sufficiently proximate to these property lines of occupied properties. The CNMP shall be submitted to County Planning and	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		Development Services 30 days prior to any land disturbance. Components of the CNMP shall include the following: 1. Affected property owners shall be notified in writing 2 weeks prior to construction activity within 500 feet of their property boundaries. 2. In order to comply with the County Noise Ordinance (Section 36.409, Construction Equipment), the acoustical usage factors (AUF) of heavy construction equipment used on the project site shall be comparable to those listed in Table 1 of the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) User Guide (FHWA 2017). Lmax values at 50 feet shall be the lower of either the "Spec. 721.560" or "Actual Measured" values in Table 1 of the RCNM User Guide, and duration of heavy equipment operating for construction shall comply with the following limitations by activity, for the specified distance between the indicated heavy equipment operations and a position along the property line of an occupied parcel: a. Perimeter fence installation – up to two flatbed trucks and a front-end loader: i. Within 15 feet – not permitted ii. 15 to 25 feet – no more than 20 minutes per 8-hour period iii. 25 to 50 feet – no more than 1 hour per 8-hour period iv. 50 to 75 feet – no more than 4 hours per 8-hour period v. Beyond 75 feet – no restriction b. Site preparation (clearing) – water truck and tractor (mowing attachment): i. Within 20 feet – not permitted ii. 20 to 25 feet – no more than 20 minutes per 8-hour period iii. 25 to 50 feet – no more than 30 minutes per 8-hour period iv. 50 to 75 feet – no more than 2 hours per 8-hour period v. 75 to 100 feet – no more than 4 hours per 8-hour period vi. Beyond 100 feet – no restriction c. Site preparation (earthmoving) – bulldozer, water truck, and scraper: i. Within 25 feet – not permitted ii. 25 to 50 feet – no more than 20 minutes per 8-hour period iii. 50 to 75 feet – no more than 1 hour per 8-hour period iv. 75 to 100 feet – no more than 3 hours per 8-hour period v. 100 to 125 feet – no more than 6 hours per 8-hour period vi. Beyond 125 feet – no restriction d. Site preparation (grading) – flatbed truck, grader, water truck, and sheepsfoot roller: i. Within 25 feet – not permitted ii. 25 to 50 feet – no more than 20 minutes per 8-hour period iii. 50 to 75 feet – no more than 1 hour per 8-hour period	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		iv. 75 to 100 feet – no more than 3 hours per 8-hour period v. 100 to 125 feet – no more than 6 hours per 8-hour period vi. Beyond 125 feet – no restriction e. Underground work (trenching) – excavator, sheepsfoot roller, water truck, 5-kilowatt (kW) generator, and Gradall (4 × 4 forklift): i. Within 25 feet – not permitted ii. 25 to 50 feet – no more than 20 minutes per 8-hour period iii. 50 to 75 feet – no more than 1.5 hours per 8-hour period iv. 75 to 100 feet – no more than 3 hours per 8-hour period v. Beyond 100 feet – no restriction f. Underground work (backfilling) – Aussie padder, sheepsfoot roller, water truck, 5-kW generator, and Gradall (4 × 4 forklift): i. Within 25 feet – not permitted ii. 25 to 50 feet – no more than 20 minutes per 8-hour period iii. 50 to 75 feet – no more than 1.5 hours per 8-hour period iv. 75 to 100 feet – no more than 3 hours per 8-hour period v. Beyond 100 feet – no restriction g. System installation – Gradall (4 × 4 forklift), crane, all-terrain vehicle, vibratory pile driver (RGT Model RG21T or comparable), pickup truck, and 5-kW generator: i. Within 25 feet – not permitted ii. 25 to 50 feet – no more than 20 minutes per 8-hour period iii. 50 to 75 feet – no more than 1.5 hours per 8-hour period iv. 75 to 100 feet – no more than 4 hours per 8-hour period v. Beyond 100 feet – no restriction All construction equipment operations shall incorporate all recommended noise reducing measures such as, but not limited to, limiting construction equipment operations, installation of temporary noise barriers, and implementation of the recommendations within the CNMP to demonstrate compliance with the County Noise Ordinance, Sections 36.408 and 36.409. Concurrent construction activities may occur so long as next closest construction activity to the same studied property line position is at least four times its "no restriction" distance away. By way of example, if earth moving was occurring near a fixed point on the potentially affected property line, the next closest set of earthmoving equipment performing like work, or perhaps an overlapping and comparable scheduled activity (e.g., grading), would be permitted if no closer than 500 feet (equal to 4 × 125 feet) from the same receptor point. 3. If distance buffers or duration limits cannot be maintained, then the Applicant or its contractor will implement on-site temporary sound abatement measures, such as a	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		field-erected noise barrier (e.g., sound blankets) of sufficient height and horizontal extent, or the placement of storage containers and other similarly solid sound-occluding structures, to ensure construction activity noise at the project property line complies with County standards. 4. The CNMP will also include direction for the Applicant or its contractor(s) to implement the following: a. Trucks and other engine-powered equipment shall be equipped with noise reduction features, such as mufflers and engine shrouds, which are no less effective than those originally installed by the manufacturer; b. Trucks and other engine-powered equipment shall be operated in accordance with posted speed limits and limited engine idling requirements; c. Usage of truck engine exhaust compression braking systems shall be limited to emergencies; d. Back-up beepers for all construction equipment and vehicles shall be adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration (OSHA) and California OSHA's safety requirements are not violated; e. Vehicle horns shall be used only when necessary, as specified in the contractor's specifications; and **f.** Radios and other noise-generating "personal equipment" shall be prohibited.	
2.6 Tribal Cultural Resources			
Impact TR-1: Tribal Cultural Resources	Significant	Implement Mitigation Measures **M-CR-2 and M-CR-3.**	Less than significant
2.7 Wildfire			
Impact WF-1: Exacerbated Wildfire Risk	Significant	Implement Mitigation Measures **M-WF-1 and:** **M-WF-2 Fuel Modification Zones.** Fuel Modification Zones (FMZs) shall be implemented and maintained as follows: 1. An FMZ for each phase of the project shall be in place before any combustible material is brought on-site. 2. Designated areas shall be mowed, brushed, chipped, or otherwise reduced to a vegetation height of less than 6 inches. Material may remain on-site, as long as it is spread out to a depth of no more than 6 inches. Alternative methods of vegetation control include manual removal, herbicide application, prescribed herbivory, or installation of weed barriers in certain areas, such as beneath the PV modules. 3. A 30-foot FMZ around the perimeter between the fence line and internal perimeter road shall reduce vegetation to less than 6 inches and be regularly maintained. 4. Vegetation shall be maintained to 10 feet on either side of every interior access road, ensuring minimum unobstructed vertical clearance of 13 feet and 6 inches.	Less than significant

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		5. A 100-foot FMZ around each BESS shall reduce vegetation to less than 6 inches in height and be regularly maintained. 6. A 30-foot FMZ around the collector substation pad shall reduce vegetation to less than 6 inches in height and be regularly maintained. 7. Vegetation under PV modules shall be maintained to a vertical height of no more than 6 inches. 8. Vegetation within the 14 internal open space easements shall be maintained to a vertical height of no more than 6 inches. **M-WF-3** **Battery Energy Storage System Measures. T**he following measures shall be incorporated to reduce wildfire risk to the BESS and to reduce spread potential from a fire starting in the BESS: 1. Both BESSs shall be constructed on concrete pads and enclosed. 2. Each unit shall be separated by a drive aisle for easy access. 3. Automatic internal heat detecting system shall be linked to an inert gas system. 4. Each BESS shall have an internal aerosol suppression system that is regularly tested and maintained. 5. A 100-foot FMZ will surround each BESS to further reduce risk of fire spread. **M-WF-4** **Construction Fire Protection Plan.** The following shall be implemented based on the FPP guidance (see Appendix L): 1. An FMZ for each phase of the project shall be in place before any combustible material is brought on-site. 2. Continual training in fire prevention, communication, and fire reporting shall be provided to all on-site personnel. 3. Smoking shall be limited to designated areas that are free of vegetation and combustible materials for a minimum 30-foot distance. 4. Two water tenders (at least 3,000 gallons each) shall remain on-site until project water supply tanks are installed. 5. Two water tank trucks (at least 300 gallons each) shall remain on-site during construction and shall be within 0.25 mile of active construction areas. 6. Daily fire risk briefings shall be held with all on-site personnel. 7. Hot work shall be done under supervision in an approved area. 8. All motors on-site shall be equipped with a spark arrestor by the manufacturer. 9. Evacuation routes shall be maintained and cleared; these routes shall never be used as parking spaces. 10. Spills of combustible, hazardous, or potentially dangerous materials shall be cleaned up immediately. 11. Electrical equipment shall be unplugged when not in use, and there shall be no “jerry rigging” of extension cords. 12. All extension cords shall be rated appropriately for the work and properly grounded.	

Impact	Impacts Prior to Mitigation	Mitigation Measures	Impacts Following Mitigation
		13. All vehicles shall carry, at a minimum, an approved fire extinguisher and shovel. 14. All equipment and vehicles shall be properly maintained. 15. A cache of firefighting tools and water shall be at the main staging area or at another location approved by the Site Safety Officer. **M-WF-5** **Red Flag Warning Measures.** During Red Flag Warnings the following precautions shall be taken: 1. No hot work shall be conducted during Red Flag Warnings. 2. No vehicle shall be permitted to drive over vegetation; vehicles must remain on roads or areas that are devoid of flammable vegetation. 3. "Red Flag" signage shall be displayed at the project main gate and construction office on days when the warning is issued. **M-WF-6** **Fire Protection and Mitigation Agreement.** As a condition to providing service and pursuant to the Safety Element of the General Plan, the Applicant shall enter into a Fire Protection and Mitigation Agreement with the San Diego County Fire Protection District (SDCFPD) prior to approval of a Major Use Permit to make a fair share contribution toward local emergency response capabilities. The funding shall be used by the SDCFPD to mitigate risks of wildfires and to enhance fire suppression and emergency services capabilities for the proposed project and the southeast portion of CSA 135.	
Impact WF-2: Infrastructure Contribution to Wildfire Risk	Significant	Implement Mitigation Measures **M-WF-1, M-WF-2, M-WF-3, M-WF-4, M-WF-5, and M-WF-6.**	Less than significant
Impact WF-CU-1: Cumulative, Emergency Response/ Evacuation Plan	Significant	Implement Mitigation Measures **M-WF-1, M-WF-2, M-WF-3, M-WF-4, M-WF-5, and M-WF-6.**	Less than significant
Impact WF-CU-2: Cumulative, Exacerbated Wildfire Risk	Significant	Implement Mitigation Measures **M-WF-1, M-WF-2, M-WF-3, M-WF-4, M-WF-5, and M-WF-6.**	Less than significant
Impact WF-CU-3: Cumulative, Infrastructure Contribution to Wildfire Risk	Significant	Implement Mitigation Measures **M-WF-1, M-WF-2, M-WF-3, M-WF-4, M-WF-5, and M-WF-6.**	Less than significant

CHAPTER 1.0 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

This chapter describes the proposed Starlight Solar Project (project), which would be a solar facility with battery storage that would generate and store solar energy. For purposes of this Environmental Impact Report (EIR), the project will be referred to as the "proposed project" or "project". The project site is located south of the community of Boulevard in southern unincorporated San Diego County.

Starlight Solar LLC (Applicant) is requesting a Major Use Permit (MUP) from the County of San Diego (County) to develop, finance, construct, and operate an unoccupied renewable energy solar and battery storage project in southeastern San Diego County. The County's General Plan (County of San Diego 2011) designates the project site as Rural Lands with an 80-acre minimum size (RL-80), and the County Zoning Ordinance (County of San Diego 2025a) identifies the site as General Rural (S92). Section 6954 of the County Zoning Ordinance states that solar power plant projects are considered a Major Impact Service and Utility in all zones and thus require the approval of a MUP.

The project would use photovoltaic (PV) electric generation system technology to produce approximately 100 megawatts (MW) of alternating current (AC) of solar energy at the utility scale. The project would also include an 868 megawatt-hour (MWh) (approximately 217 MW, 4-hour batteries) battery energy storage system (BESS). The project site encompasses a total of approximately 588 acres within the Mountain Empire Subregion in unincorporated San Diego County (Figure 1-1). The project would be constructed in two phases: the first phase would consist of 20 MW solar energy generation and 17.4 MW of battery storage, and the second would consist of 80 MW solar energy generation and 200 MW of battery storage. A biological open space easement would be granted over an approximately 448-acre area that includes sensitive vegetation communities, special-status plant species, and habitat for special-status species.

1.1 Project Objectives

The fundamental purpose of the project is to permit, construct, and operate utility-scale solar energy and battery storage as near as possible to existing infrastructure in eastern San Diego County. Specific objectives for the project are as follows:

1. Develop a solar energy project that maximizes energy generation and battery storage potential with a rated capacity of approximately 100 MW and an approximately 217-MW BESS facility that can supply electricity to indirectly reduce the need to emit greenhouse gases (GHGs) caused by the generation of similar quantities of electricity from either existing or future nonrenewable sources to meet existing and future electricity demands, including during on-peak power periods.
2. Develop a renewable solar energy project that can meet the criteria to achieve the maximum state and federal solar investment tax credits, which are intended to decrease the cost of renewable energy generation and delivery, promote the diversity of energy supply, and decrease the dependence of the United States on foreign energy supplies.
3. Assist in achieving the state's Renewables Portfolio Standard (RPS), as mandated under the 100 Percent Clean Energy Act of 2018 (Senate Bill 100), by developing and constructing California RPS-qualified solar generation from eligible renewable energy resources by December 31, 2045.
4. Develop a utility-scale solar energy project that improves electrical reliability for the San Diego region by providing a source of local generation as near as possible to existing San Diego Gas and Electric (SDG&E) transmission infrastructure.

5. Provide a new source of energy storage that assists the state in achieving or exceeding its energy storage targets, consistent with the terms of Assembly Bill 2514, and its GHG reduction targets, consistent with Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279.
6. Site a solar energy project in an area within San Diego County that has excellent solar attributes, including but not limited to high direct normal irradiance, in order to maximize productivity.
7. Develop a utility-scale solar energy facility within San Diego County that supports the economy by investing in the region and creating construction jobs.

1.2 Project Location

The project site encompasses approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.93 mile north of the United States border (Figure 1-2). The community of Boulevard encompasses approximately 4 square miles and includes the communities of Manzanita, Tierra del Sol, and Live Oak Springs. Boulevard is a census-designated place with a population of approximately 410 people (U.S. Census Bureau 2023).

The project site is approximately 1 mile south of Interstate 8 (I-8) and Old Highway 80, and east of Tierra Del Sol Road. Regional access to the project site would be provided by State Route 94 and I-8. Access to the project site would be provided by Jewel Valley Road, which runs north to south and connects to Old Highway 80 in Boulevard. Additional emergency fire access would be provided via Tule Jim Lane which connects to Old Highway 80.

The MUP area would be 581 acres. An underground generation-tie (gen-tie) line would be located on the east side of Tule Jim Lane and connect to the southeastern corner of the SDG&E Boulevard substation. Although the majority would be underground, the gen-tie line would have one overhead portion consisting of two poles to cross Tule Jim Road and would encompass 7 acres. An off-site vehicle turnaround area on Jewel Valley Road would be 0.06 acre in size. The environmental analysis contained within this EIR will analyze the entire 588-acre project site.

Table 1-1 lists the Assessor's Parcel Numbers (APNs) within the project site, the gen-tie route, the Boulevard substation, and the biological open space easement. These APNs are also shown in Figure 1-3.

Table 1-1. Project Site APNs

Project Site	Gen-Tie Route	Conservation Easement	SDG&E Boulevard Substation
612-082-12	612-090-59	659-130-03	612-092-13
612-110-02	612-090-68	659-140-01	
612-110-04		659-140-02	
612-110-17			
612-110-18			
612-110-19			
612-120-01			
659-020-01			
659-020-02			
659-020-05			
659-020-08			
659-080-02			
659-080-09			

1.2.1 Land Use and Zoning

The MUP project site is designated by the County's General Plan (County of San Diego 2011) as RL-80; the gen-tie route and SDG&E Boulevard substation are designated as Semi-Rural Residential (SR-10; Figure 1-4). The County Zoning Ordinance identifies the site as General Rural (S-92) (Figure 1-5). Zoning and land use designations per parcel are listed in Table 1-2. The County Zoning Ordinance Section 6954 states that solar energy systems for off-site use are considered a Major Impact Service and Utility in all zones and thus require the approval of a MUP.

The project site is within the Mountain Empire Subregion, which contains five subregional group areas. The project site is located in the Boulevard Subregional Planning Area.

In San Diego County, several resource conservation planning efforts have been completed or are in progress with the goal of establishing a regional preserve system that will protect sensitive habitats and the species that depend on them. The ultimate goal is the establishment of biological preserve areas in conformance with the California Natural Community Conservation Planning Act and federal Endangered Species Act, contributing to the preserve system already established by the approved subregional Multiple Species Conservation Program (MSCP). The project site is within the East County MSCP area, which is still in the planning process. Parts of the project site are defined as "Agricultural or Natural Upland" within a Focused Conservation Area of the draft MSCP (County of San Diego 2024a).

Table 1-2. Project Site Zoning and Land Use Designations

APN	Zoning Designation	Land Use Designation
MUP Project Site		
612-082-12	S-92 – General Rural	RL-80 – Rural Lands
612-110-02	S-92 – General Rural	RL-80 – Rural Lands
612-110-04	S-92 – General Rural	RL-80 – Rural Lands
612-110-17	S-92 – General Rural	RL-80 – Rural Lands
612-110-18	S-92 – General Rural	RL-80 – Rural Lands
612-110-19	S-92 – General Rural	RL-80 – Rural Lands
612-120-01	S-92 – General Rural	RL-80 – Rural Lands
659-020-01	S-92 – General Rural	RL-80 – Rural Lands
659-020-02	S-92 – General Rural	RL-80 – Rural Lands
659-020-05	S-92 – General Rural	RL-80 – Rural Lands
659-020-08	S-92 – General Rural	RL-80 – Rural Lands
659-080-02	S-92 – General Rural	RL-80 – Rural Lands
659-080-09	S-92 – General Rural	RL-80 – Rural Lands
Gen-tie Route		
612-090-59	S-92 – General Rural	SR-10 – Semi-Rural Residential
612-090-68	S-92 – General Rural	RL-80 – Rural Lands
Biological Conservation Easement		
659-130-03	S-92 – General Rural	RL-80 – Rural Lands
659-140-01	S-92 – General Rural	RL-80 – Rural Lands
659-140-02	S-92 – General Rural	RL-80 – Rural Lands

APN	Zoning Designation	Land Use Designation
SDG&E Boulevard Substation		
612-092-13	S-92 – General Rural	SR-10 – Semi-Rural Residential

1.3 Environmental Setting

The baseline for the project is established by the physical condition that existed when the County published the Notice of Preparation (NOP) for the EIR on March 23, 2023. The environmental setting is summarized below and described in greater detail for each environmental issue at the beginning of each section in Chapter 2.0, Significant Environmental Effects of the Proposed Project, and Chapter 3.0, Environmental Effects Found not to Be Significant, of this EIR.

1.3.1 Existing Conditions

The project site is largely undeveloped. It lies within the boundaries of the privately owned Empire Ranch, an approximately 3,795-acre ranch that stretches from south of Old Highway 80 to the United States border with Mexico. Beyond the project site boundaries, Empire Ranch currently contains a ranch compound with residential buildings, structures for livestock, private roads, and an airstrip. Empire Ranch also previously contained agricultural uses, which are now reduced in scale. A section of the San Diego & Arizona Eastern Railway that is no longer in service runs east to west through the southern portion of the project site. This railway line is now owned by the San Diego Metropolitan Transit System (MTS). Boundary Creek also flows in a southeastern direction directly south of Jewel Valley Road.

The Jewel Valley Road Pathway is proposed along Jewel Valley Road which intersects the project site (County of San Diego 2020). The pathway is estimated to be 3.20 miles once completed and would primarily act as a north/south connector for other proposed and existing trails in the area. Jewel Valley Road Pathway is proposed as a part of the County's Community Trails Master Plan. Pathways are defined as non-motorized transportation facilities located within a parkway or road right-of-way. Pathways are intended to serve both circulation and recreation purposes and are an integral part of a functional trail system (County of San Diego 2020).

The project site is surrounded by unpaved roads, other rural residential development, an electrical substation, and undeveloped land. The SDG&E Boulevard substation is located on approximately 2 acres to the northeast of the project site, directly south of Old Highway 80.

The project site is topographically diverse. In the northern portion of the site, east- and south-facing sloping hillsides are characteristic, with elevations up to 3,650 feet above mean sea level (amsl) in the northeast. In the southern portion of the site, elevation decreases to 3,450 amsl. There are 14 natural vegetation communities and land cover types and three additional cover types within the category of disturbed or developed land.

1.3.2 Airstrip

There is an existing airstrip within the project site at APN 612-110-17. The airstrip was built within the Jewel Valley Creek watercourse, which is a tributary of Boundary Creek. The airstrip was initially developed in the early 1990s and expanded to its current extent in the mid-2000s. In 2012, the then-owner of the airstrip, Lansing Companies, was notified of an open code enforcement case (DPW2010-RFS-10-0062794) relating to the airstrip. The case was opened because a permit was never received prior to the construction of an extension to the airstrip, and the airstrip was impacting an existing watercourse, in

violation of Section 87.603 of the County's Watercourse Ordinance. In 2012, a grading application was submitted (PDS2012-2700-15676) to remediate the unpermitted airstrip. In October 2015, the County circulated a Mitigated Negative Declaration for public review to remediate the airstrip. After circulation of this Mitigated Negative Declaration, restoration and remediation of the airstrip did not move forward. The airstrip is currently not in operation.

The airstrip would be utilized as a construction laydown area during both phases of construction. After construction of Phase II, it would be removed and hydroseeded to resolve the code enforcement case.

1.4 Project Description

1.4.1 Project's Component Parts

1.4.1.1 Solar Facility

The project would be an unoccupied solar energy generation and storage facility which would produce a total rated capacity of 100 MW of AC-generating capacity. The project would also include 217.4 MW of AC energy storage. The power produced by the proposed solar facility would interconnect into the Boulevard substation via an underground gen-tie line. The underground gen-tie would have one aboveground section crossing Tule Jim Lane.

The project would include the following primary components (Figure 1-6):

- Approximately 235,516 PV modules would be mounted on support structures (typically single-axis). The final number of modules and support structures would depend on the final design.
- A 1,500-volt direct current (DC) underground collection system would link the modules to the inverters and eight solar array systems based on current design standards.
- Inverter/transformer platforms, located throughout the solar facility, would convert the DC power generated by the modules into AC power, a compatible form for use with the transmission network.
- A 34.5-kilovolt (kV) underground AC collection system would link the inverters to the on-site collector substation.
- A 6,500-square-foot on-site collector substation, a 400-square-foot storage building, and a 450-square-foot control enclosure building would be located on the northeastern tip of the project site within an approximately 3-acre substation site.
- The gen-tie line would run from the on-site project substation to the Boulevard substation. It would consist of one route with two lines running parallel to each other—a 69-kV line and a 138-kV line—that would be strung overhead to cross Tule Jim Lane and would be located underground the rest of the way.
- A 217.4-MW BESS would be located on approximately 5.14 acres in two phases.
- The project would include a Supervisory Control and Data Acquisition (SCADA) system.
- A 24-foot-wide perimeter access and array-connecting roads and 20-foot-wide internal access roads would be used to provide operational vehicles access to the site.
- All project equipment would be surrounded by 30- to 100-foot fuel modification zones.
- Biological resource mitigation land would be conserved and managed south and west of the project site within APNs 659-130-03, 659-140-01, and 659-140-02.

As shown in Figure 1-7 through Figure 1-10, the project would be constructed in two separate phases, and operation would begin at different times. Phase I encompasses approximately 125 acres in Area A-1 and includes the development of a PV system capable of generating approximately 20 MW of solar energy and producing 17.4 MW of battery storage (Figure 1-8). Phase II encompasses approximately 456 acres in Areas A-2 through G and includes the development of a PV system capable of generating approximately 80 MW of solar energy and producing 200 MW of battery storage (see Figure 1-8 through Figure 1-10).

PV Modules and Support Structures

PV modules generate electricity by safely converting the energy of the sun's photons into DC electrons. The project would include approximately 235,516 modules, which would be installed in rows (arrays). Arrays that are grouped together are referred to as an array field (Figure 1-11).

The modules would be mounted on support structures that allow them to be positioned to maximize the amount of the sun's solar energy captured. Each row of PV modules would be single-axis trackers oriented east-west or a fixed-tilt oriented north-south, or both. Single-axis tracking systems would employ a motor mechanism that allows the arrays to track the path of the sun (from east to west) throughout the day. Fixed-tilt arrays are placed on a fixed angle at the optimum tilt. The support structure would be elevated at least 1 foot above the base flood elevation. The PV modules and support structures would be a maximum of 12 feet in height. The PV modules are uniformly dark in color, non-reflective, and designed to be highly absorptive of all light that strikes their glass surfaces. Most PV modules have a guaranteed useful life of 25 years in adverse weather conditions.

The solar PV modules would be mounted on support structures supported by a pile-driven foundation that allow them to be properly positioned for maximum capture of the sun's solar energy. The support structures are typically mounted on metal pipe columns or I-beam foundations 6 inches in diameter. The beams would be driven into the soil using a pile/vibratory/rotary driving technique. Driven pier foundations are a "concrete-free" foundation solution that would result in minimal site disturbance and facilitate site reclamation during decommissioning. Most pier foundations would be driven to approximate depths of 5 to 10 feet depending upon the required embedment depth.

Electrical (DC) Underground Collection System

PV modules would be electrically connected to adjacent modules to form module "strings" using wiring attached to the support structures. PV module strings would be electrically connected to each other via underground wiring, with one aboveground location. The collection system would have a short overhead section (two 50-foot-high steel poles) across the MTS railway line. Wire depths would be in accordance with local, state, and federal codes. String wiring terminates at PV module array combiner boxes, which are lockable electrical boxes mounted on or near an array's support structure. Output wires from combiner boxes would be routed along an underground trench system approximately 3 to 4 feet deep and 1 to 3 feet wide, including trench and disturbed area, to the inverters and transformer pads. The solar arrays would be connected via an aboveground collection system.

Inverter and Medium-Voltage Transformers

The power cables from multiple module strings are consolidated via combiner boxes throughout the solar field and delivered to the inverters via underground cables. Inverters are a key component of solar PV power-generating facilities because they convert the DC power generated by the PV modules into AC power that is compatible for use with the transmission network. The inverters are connected directly to the medium-voltage transformers that step up the AC voltage to collection-level voltage (34.5 kV). The inverters would be fully enclosed and located adjacent to medium-voltage transformers, both of which would be installed on concrete foundations. These concrete foundations would be a minimum of 1 foot

above base flood elevation. The inverter pad dimensions would be approximately 40 feet long, 10 feet wide, and 12 feet tall.

At each of the inverter/transformer locations, the transformer would be connected sequentially to an underground medium AC voltage collection system which would carry the power to the on-site collector substation. The underground electrical cables would be installed using standard trenching techniques, with directional boring techniques available to avoid sensitive resources, as necessary. The trenches would be filled with base material above and below the conductors and communications lines to ensure adequate thermal conductivity and electrical insulating characteristics.

1.4.1.2 Substation

The project includes an approximately 3-acre substation that would be located near the northeastern portion of the project site. The substation equipment would use earth-toned coloring, and the tallest equipment within substation boundaries would have a maximum height of 50 feet. All underground 34.5-kV feeder circuits would be collected and combined at the substation; the voltage would then be stepped up to 69 kV or 138 kV via a transformer.

The major components of the proposed collector substation are as follows:

- Switchgear
- Transformers
- Circuit breaker
- Controls and protection
- Metering
- Footings
- Reinforced concrete foundations
- Oil containment area for the transformers

During operation of the collector substation, operation and maintenance staff would visit the substation periodically for maintenance. Maintenance trucks would be used to perform routine maintenance, including equipment testing, monitoring, repair, routine procedures to ensure service continuity, and standard preventive maintenance.

1.4.1.3 Generation-Tie Line

The gen-tie line route would consist of two lines connecting the project to the SDG&E Boulevard substation. The gen-tie line route would begin at the on-site substation on the eastern end of the project site along Tule Jim Lane. From the on-site substation, the gen-tie line route would cross Tule Jim Lane with a short overhead section (two 50-foot-high steel poles). Once across Tule Jim Lane, the gen-tie line route would head north underground along the east side of Tule Jim Lane for approximately 0.6 mile before interconnecting to the southeast corner of the Boulevard substation. The gen-tie line route would avoid the residence located on the east side of Tule Jim Lane and south of the Boulevard substation. The gen-tie easement would be located approximately 160 feet south and 230 feet east of the residence and would be approximately 75 feet in width.

1.4.1.4 Control System

The proposed project would be designed with a comprehensive SCADA system for remote monitoring of facility operations and remote control of critical components. The SCADA system connects the solar facility to the plant operator and the independent system operator. The SCADA system would be monitored remotely, and no daily on-site operations and maintenance facilities or personnel would be necessary. The SCADA system would be located in the substation area and would consist of rack-mounted servers and software to allow for the continuous monitoring and control of PV inverters, solar trackers, PV weather monitoring system, substation equipment, BESS, and other equipment throughout the solar facility. The SCADA system would be used to provide critical operating information (e.g., power production, equipment status and alarms, and meteorological information) to the power purchaser, project owners and investors, grid operator, and project operations teams. The system would also facilitate production forecasting and other reporting requirements for project stakeholders.

The data collection system would also include a meteorological data collection system. The meteorological data collection system would have the following weather sensors: a pyranometer for measuring solar irradiance, a thermometer to measure air temperature, a barometric pressure sensor to measure atmospheric pressure, and two sensors to measure wind speed and direction.

1.4.1.5 Battery Energy Storage System

The proposed project includes two BESSs that would store approximately 217.4 MW (868 MWh) of electricity for dispatch into the local SDG&E grid via the same point of interconnection as the solar array. Phase I of the project would include a 17.4-MW BESS on Area A-1 covering approximately 32,000 square feet directly adjacent to the on-site substation, and Phase II would include a 200-MW BESS on Area A-2 covering approximately 192,000 square feet.

The BESS would consist of individual battery containers in cabinets which are 6 feet wide, 5.5 feet deep, and 8 feet tall. The BESS cabinets would be double-loaded along a 70-foot-long concrete foundation. In addition, a power conversion system would be constructed adjacent to the BESS which would be 20 feet long, 8 feet wide, and 9.5 feet tall. The power conversion systems would be located on a concrete foundation measuring 20 feet long and 8 feet wide. Each BESS cabinet would have a 5-foot-wide access drive aisle. The entire BESS area would be fenced for security and to restrict access.

Battery Modules, Technology and Fire Protection

As described above, each battery storage container would be located within a metal frame storage cabinet with insulation, air conditioning, and fire suppression, with separate enclosures for the electronic controls, inverters, and rectifiers. The primary storage components would consist of self-contained electrochemical battery systems using conventional storage technologies with proven safety and performance records. The battery storage cabinet is designed such that the periodic maintenance and replacement of underperforming battery components (each a single "module") can be easily performed on an as-needed basis, whereby each individual module can be replaced without needing to replace the entire system. The BESS modules and associated infrastructure (e.g., inverters, switches) would be serviced regularly via planned maintenance and on an as-needed basis by certified technicians.

DC electricity would be collected from the batteries and conveyed to the inverters. A series of battery modules form a battery "rack", and each rack is connected to a battery management system to control that specific rack and control the voltage, current, and other operations. Series circuits are combined together to form an individual parallel circuit; parallel circuits are grouped together in individual racks which are sized appropriately, and each rack contains a rack-level battery management system. The number of racks would vary according to final proposed project specifications and can be sized to accommodate electrical design.

Racks combine multiple parallel circuits through a fused bus system to collect the energy into one set of DC collection cables. The fuses within the racks create another line of protection from overcurrent. These cables run from the racks to the inverters, where they would terminate in the DC side of the inverter.

The batteries would be high-density, lithium iron phosphate or other types with an equivalent or higher level of safety and rechargeable, as reviewed and determined by the County. These batteries would allow a safe and effective installation into a shipping container and are well-suited to perform beyond the planned daily operations for this facility (i.e., approximately one complete cycle each day). The proposed project would use a built-in fire protection system and would include a fire extinguishing system. The system would be designed in accordance with, and would satisfy all requirements of, the California Fire Code, San Diego County Fire Department *Interim Fire Protection Guidelines for BESS Facilities*, and National Fire Protection Association (NFPA) safety standards, as well as meet other applicable state and local requirements.

The battery storage containers would be situated to enable emergency/fire response access. The containers would be sited with a 100-foot fuel modification zone from off-site areas as a buffer against potential wildfire ignitions. The containers would not be walk-in containers (Figure 1-12); thus, they would be non-habitable structures per the state and local fire codes in place at the time a building permit application is submitted to the County.

The proposed batteries and containers also include the following important monitoring and safety components:

- Modular battery racks designed for ease of maintenance
- Integrated heat and fire detection and suppression system
- Explosive gas monitoring
- Exhaust/ventilation systems
- Integrated air conditioning system
- Integrated battery management system

Electrical isolation monitoring devices are present on each DC battery bus to detect faults and disconnect the system before a serious problem occurs. The heat and fire detection system would be linked to an automatic inert gas suppression system within each container. The containers would also have a basic interior sprinkler system with several sprinkler heads for coverage and an external dry standpipe for firefighters to connect and pump water.

Critical information from the BESS and equipment data from the DC converters and inverters would be monitored by the battery monitoring system inside the containers, at the metering at the inverter cabinets, and at the SCADA control system described in more detail below. The battery management system within each container would track the performance, voltage and current, and state of charge of the batteries. The system would proactively search for changes in performance that could indicate impending battery cell failure, and power down and isolate those battery strings in order to avoid potential failures.

The battery management system would be purchased from vendors who are on track to have their equipment meet the following Underwriters Laboratories (UL) listings: UL 9540, 1741, 1973, 1642, and any other UL standards at the time of the application of the building permit. The NFPA has developed a new Standard for the Installation of Energy Storage Systems (NFPA 855). This standard addresses the design, construction, installation, commissioning, operation, maintenance, and decommissioning of stationary energy storage systems. As the final selection of the lithium iron phosphate-based energy storage system technology remains in process, several preliminary studies (based upon an assumed technology) that are

typically required for the completion of a California Fire Code Section 1207.1.4, Hazard Mitigation Analysis, have been prepared for the proposed project and included in this EIR as the following appendices:

- Appendix O.1 Preliminary Battery Energy Storage System Fire Risk Assessment and Heat Flux Analysis (Hiller 2025a)
- Appendix O.2 Preliminary Battery Energy Storage System Failure Mode and Effects Analysis (Hiller 2025b)
- Appendix O.3 Preliminary Balance of Plant Fire Risk Assessment (Hiller 2025c)
- Appendix O.4 Preliminary Balance of Plant Failure Mode and Effects Analysis (Hiller 2025d)
- Appendix O.5 Preliminary Balance of Plant Hazard Mitigation Analysis (Hiller 2025e)
- Appendix O.6 Preliminary First Responders Guide (Hiller 2025f)

It should be noted that these preliminary analyses address the BESS, as well as the other components of the solar energy facility (referred to above as the "balance of plant"). Potential hazards associated with construction and operation of the project are evaluated in Section 2.7, Wildfire, and Section 3.1.5, Hazards and Hazardous Materials.

1.4.1.6 Ancillary Structures

Vehicle Access Roads

Access to the solar facility would be provided via Jewel Valley Road. The site entrance would feature a manual swing gate or motorized slide gate and a sign with a lighted directory map and contact information. Additionally, emergency fire access would be provided via Tule Jim Lane which would feature a 24-foot gate. All entrance gates would feature fire authority–approved strobe light activation and a 'Knox Box' key-operated switch to allow ease of access for emergency service providers. All access to the site has been designed per the County Fire Code (County of San Diego 2023). The project would include dual-purpose internal fire response access and service access roads. The all-weather perimeter access road and array-connecting roads within the fenced solar facility would be constructed to an improved width of 24 feet on 28 feet of graded area. The internal access would allow for two-way access of fire apparatus throughout the solar facility in order to access all of the inverter/transformer pads. The interior on-site vehicle access roads would be constructed to an improved width of 20 feet on 24 feet of graded area. All internal access would be designed to provide a minimum inner turning radius of 28 feet, would be graded and maintained to support the imposed loads of fire apparatus (not less than 75,000 pounds), and would be designed and maintained to provide all-weather driving capabilities. The maximum gradient of all access roads would not exceed 12%.

A vehicle turnaround location would be created along Jewel Valley Road in the center of the project site. The turnaround shall be designed in accordance with County of San Diego design standard DS-06 for a County emergency fire apparatus (County of San Diego 2012).

All internal access road surfaces would be Class II, composed of decomposed granite, and would be permeable in order to reduce fugitive dust and erosion in accordance with the County Code of Regulatory Ordinances (County Code) Section 87.428, Dust Control Measures, and with San Diego Air Pollution Control District Rule 55, which regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions.

Security Lighting, Fencing, and Signage

The eight solar arrays and 581-acre solar facility (MUP area) would be fenced along the entire facility boundary for security. The fencing would meet National Electrical Safety Code requirements for protective arrangements in electric supply stations. Fencing would be up to 7 feet in height total, with a 6-foot-high chain-link perimeter fence and 1 foot of three strands of barbed wire along the top. Areas of the project site subject to higher flood flows would use breakaway fencing perpendicular to the flow path (see Figure 1-8).

For electrical safety, the following signage would be posted on the project site in Spanish and English:

- 12 × 18–inch system identification signs would be located at the gated entrances. These would include the name of the site and contact information as provided by SDG&E.
- 10 × 14–inch Private Property/No Trespassing and High Voltage Signs would be located at gated entrances and at 100-inch intervals along fencing.
- A reflective sign at the main entrance with inverter and contact information for a 24-hour remote operations center for the project.

All lighting would have bulbs that do not exceed 100 watts or equivalent, and all lights would be shielded, directed downward, and would comply with the County Light Pollution Code (County Code Sections 51.201–51.209), also known as the Dark Sky Ordinance. Outdoor lighting circuits would incorporate dusk-to-dawn photocell controllers, occupancy sensors, and/or switches as appropriate. Additionally, lighting for the project would be designed in accordance with the County Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare, and controls excessive or unnecessary outdoor light emissions (County of San Diego 2012).

Detention Basin and Stormwater Facilities

The project would include the construction of two detention basins, one located at the northeastern portion of the project site between the proposed substation and Phase I BESS, and one located east of the Phase II BESS.

A series of stormwater piping is proposed in the north and northeastern portion of the project site. These facilities would include but would not be limited to storage piping, conveyance piping, headwalls, cleanouts, and riprap. The detention basins and storage piping would provide stormwater detention to limit water flowing from the site due to new impervious surface resulting from the BESS facility and substation. The detention basins would be designed in accordance with the County's hydraulic design manual (County of San Diego 2014).

Water Tanks (Fire Protection)

The project would install a total of six 10,000-gallon water tanks with fire department connections available. The water tanks would be 12 feet wide and 15 feet tall. Water would be stored in aboveground tanks complying with the San Diego California Fire Agency requirements and with NFPA 22, Private Fire Protection Water Tanks. The water tanks would be located strategically across the various areas of the project site. Three water tanks would be located in Area A-1, two water tanks would be located in Area A-2, and one water tank would be in Area G at the southern extent of the project. A procedure for ongoing inspection and maintenance of tanks would be in place. The tank and fire engine connections would be located on the side of the access driveways. The width of the driveway at each water tank location would be at least 24 feet (travel width) to allow for fire engines to park and connect to the tank while leaving the road open. The tanks would be labeled "Fire Water: 10,000 gallons" using earth-toned reflective paint.

Fuel Modification Zones

A minimum 30-foot-wide fuel modification zone would be provided from the chain-link fence perimeter of the solar facility between the PV modules and the off-site wildland fuels. This area would include contiguous fuel modification from the perimeter fence inward and would include the perimeter fire access road. Additionally, a minimum 100-foot-wide fuel modification zone would surround the two BESS areas.

Open Space Easement Areas

As shown in Figure 1-6, the project contains 15 cultural open space easement areas designed to protect sensitive cultural resources within the MUP project site, totaling 24.44 acres. No development or disturbance would occur within the open space easement areas. These areas would be fenced with a 4-foot-high three-strand barbed wire fence. Each open space easement area would include a gated entrance. Phase I would include five open space easement areas totaling 7.08 acres. Phase II would include 12 open space easement areas totaling 17.36 acres.

As shown in Figure 1-2 and described in the biological resources technical report (Appendix D, Biological Resources Report), an off-site biological open space easement area would be granted over an approximately 447.93-acre area that includes sensitive vegetation communities, special-status plant species, and habitat for special-status species to protect sensitive biological resources. This biological open space easement area would be granted to the County or other approved conservation entity. Granting of this open space would authorize the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. This easement area is for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The biological open space easement area would be unfenced. As the project is proposed in two phases, two separate open space easements would be dedicated within the 447.93-acre area. The recordation of each open space easement would occur prior to the issuance of a grading permit for each phase. Refer to Section 2.2, Biological Resources, for a further description of the biological open space easements.

1.4.1.7 Operation and Maintenance

PV Modules and Support Systems

The PV modules and tracking systems would be inspected periodically. Electrical components would be tested routinely according to manufacturer's recommendations. In the event that remote monitoring indicates a problem, such as low performance in a section of the array field, a crew would investigate and correct the problem on an as-needed basis. It is anticipated that PV panel washing would occur two to three times per year. Washing of the PV panels would be undertaken using either a self-propelled powered mechanical system (e.g., MultiOne Solar Panel Washer or Mazaka Solar Cleaner or comparable motorized equipment) or a portable pressure washer towed by a pickup truck. Washing would occur during daylight hours, so no lighting would be required.

Operational Water Demand

Project operation would require water for dust control, panel washing, and fire protection. Panel washing of the PV panels would occur approximately once per year. Water used during project operation would be supplied by the Jacumba Community Services District (JCSD) located in Jacumba Hot Springs, California. The primary source of water from the JCSD is the Highland Center Well. If needed, the Park Well is the designated backup water source. The Padre Dam Municipal Water District is also a viable source of water

to supply operational needs. Annual operational water demand would be approximately 0.81 acre-feet per year (INTERA Incorporated 2025a). Six 10,000-gallon water tanks throughout the site would provide emergency water access for fire suppression. A procedure for ongoing inspection and maintenance of tanks would be in place. These tanks would either be elevated or equipped with a pump and would not suffer appreciable evaporation losses because they would be enclosed and watertight.

Fire Protection

There are several fire stations within the project area; these include California Department of Forestry and Fire Protection (CAL FIRE), San Diego County Fire Protection District (SDCFPD), and U.S. Forest Service fire stations. The Boulevard area is serviced by CAL FIRE's Boulevard Fire Station (Station 47). Fire emergencies that may occur at the project site would be primarily responded to by CAL FIRE's Boulevard Fire Station (Station 47), which is staffed by both volunteer reserve and career firefighters. Additional responses would be available from SDCFPD's Jacumba and Lake Moreno Stations (Stations 43 and 42, respectively), and CAL FIRE's Campo Station (Station 40). Helicopter water drops may also be used as appropriate. Other fire protection would be provided from mutual aid resources from throughout San Diego County and the state, when necessary. Clearing and grubbing of approximately 561 acres would be required for construction and access to the project site. Consistent with County requirements for discretionary approvals for projects in wildland/urban interface areas, a fire protection plan has been prepared for the project (SWCA Environmental Consultants 2024) (Appendix L, Fire Protection Plan).

1.4.1.8 Construction

Phase I and Phase II of the project would be constructed separately. Construction of Phase I would occur over approximately 12 months, and Phase II would occur over approximately 18 months. It is anticipated there would be approximately a 1-year gap between construction of Phase I and Phase II. Except for construction of the substation, which would occur during Phase I, both phases of the project would each include the following construction activities:

- Site mobilization
- Site preparation (including access driveways and staging areas), grading, and stormwater protections
- Fence installation
- Substation installation
- Pile driving
- Blasting
- Tracker and PV module installation
- DC electrical
- Underground medium AC voltage electrical
- Inverter/transformer platform installation
- BESS installation
- Commissioning

The airstrip within the center of the project site would be utilized as a construction laydown area during both phases of construction.

Site Preparation, Grading, and Stormwater Protection

Construction of the project would involve clearing and grubbing of the existing vegetation within the project site. Approximately 561 acres throughout the site would be disturbed. Grading would also be required throughout some portions of the project site. Grading is expected to be balanced on-site, with approximately 350,000 cubic yards of cut redistributed across the site. The maximum vertical depth of excavation would be 19 feet, and the maximum vertical height of fill would be 18 feet. Once complete, the project site would contain approximately 7 total acres of impervious surfaces.

Blasting activities may be required to facilitate siting of array and other equipment foundations plus the gen-tie. The Applicant would obtain a blasting permit from the County prior to initiating any blasting activities. Blasting activities would typically involve drilling multiple 2-inch-diameter holes into a boulder or bedrock to a depth of approximately 40 inches. Charges, typically weighing between 2.5 and 5 pounds each, would then be inserted into each drilled hole and detonated sequentially. The necessity and extent of blasting would not be known until surface clearing is completed. However, it is preliminarily estimated that approximately 5,000 cubic yards of rock would be blasted during the early stages of excavation and mass grading for Phase I and Phase II. Blasting would occur at 2- to 3-day intervals, with no more than one blast per day.

The project would implement the following measures in compliance with the Grading Ordinance (County Code Section 87.428) to minimize fugitive dust (PM_{10}) during the construction phase of the proposed project. These measures would include the following:

- Prior to construction activities, the Applicant will employ a construction relations officer who will address community concerns regarding on-site construction activity. The Applicant will provide public notification in the form of a visible sign containing the contact information of the construction relations officer who will document complaints and concerns regarding on-site construction activity. The sign will be placed in easily accessible locations and noted on grading and improvement plans.
- Grading areas will be watered, or another San Diego Air Pollution Control District–approved dust control non-toxic agent will be used, at least three times daily, to minimize fugitive dust only where chemical stabilizers are not used.
- All permanent roads and the paved access roadway improvements will be constructed and paved as early as possible in the construction process to reduce construction vehicle travel on unpaved roads. Foundations will be finalized as soon as possible following site preparation and grading activities to reduce fugitive dust from earthmoving operations.
- Grading areas will be stabilized as quickly as possible to minimize fugitive dust.
- Wheel washers, grates, rock, or road washers will be installed adjacent to the site access points for tire inspection and washing prior to vehicle entry on public roads.
- Visible track-out into traveled public streets will be removed with the use of sweepers, water trucks, or similar method within 30 minutes of occurrence.
- Haul trucks will be covered or at least 2 feet of freeboard will be maintained to reduce blow-off during hauling.
- A 15-mile-per-hour speed limit on unpaved surfaces will be enforced.
- Haul truck staging areas will be provided for loading and unloading of soil and materials and will be located away from sensitive receptors at the farthest feasible distance.

Installation of Underground Medium-Voltage Collection System

Trenching is required for installation of the AC medium-voltage underground electrical collection system, gen-tie line, and telecommunication lines. Trenches would be approximately 3 to 4 feet deep and 1 to 3 feet wide and would connect all the solar array areas. The trenches would be filled with base materials above and below the conductors and communication lines to ensure adequate thermal conductivity and electrical installation characteristics. The topsoil from trench excavation would be set aside before the trench is backfilled and would ultimately compose the uppermost layer of the trench. Excess material from the foundation and trench excavations would be used for site leveling. Where possible, trenching would be located beneath existing driveways and access roads to minimize disturbance.

Installation of Photovoltaic System

The PV system installation includes piles, racking, module assembly, and DC wiring as follows:

- **Piles:** The piles would be driven into the soil using a pile/vibratory/rotary driving technique like that used to install freeway guardrails. The piles would be driven to approximate depths of 5 to 10 feet depending upon required embedment depth. The spacing of the piles would be determined by the ultimate ground coverage ratio. Exact pile locations would be surveyed and pinned.
- **Racking:** The racking would be assembled on top of the piles manually and tightened and adjusted with handheld electric ratchet guns.
- **Module assembly:** The modules would be manually lifted and adjusted on top of the racking.
- **Aboveground DC wiring:** The modules would be strung together and manually connected with twist connectors.

Installation of Battery Energy Storage System

The BESS installation would include the following:

- **Concrete Foundation:** Concrete foundation pads would be constructed at the site.
- **Battery Storage Equipment:** The equipment would be delivered to the site by truck and lifted off the truck by a forklift or crane.
- **Wiring and Commissioning:** The fully integrated container would then be wired into the inverter/transformer platforms.

The battery storage equipment would be constructed on concrete pads, and each set of equipment would be bolted to the pads. The power conditioning system (PCS) and the medium-voltage control system (i.e., inverters and transformers) would be constructed on level concrete pads between the battery storage containers. Minor rough grading may be needed for the preparation of the proposed PCS and medium-voltage control system pads if the pads cannot be constructed using the existing slope.

Construction Workforce and Traffic

Construction would employ approximately 75 workers per day during the peak construction period for Phase I and 210 workers per day during the peak construction period for Phase II. In addition to this direct labor workforce, approximately 10 to 15 additional workers at the site would engage in supervision, contract services, administration, and other non-direct labor activities. Local hires would be encouraged and engaged where feasible.

During Phase I of construction, the project would generate 90 round-trip worker vehicle trips, 164 round-trip heavy-duty truck trips, and four round-trip water truck trips per day on average. During Phase II, the project would generate 225 round-trip worker vehicle trips, 466 round-trip heavy-duty truck trips, and eight round-trip water truck trips per day on average (Kittelson & Associates, Inc. 2024, 2025) (Appendix K.1, Transportation Impact Assessment, Appendix K.2 Supplemental Construction Traffic Memorandum). The project would use a just-in-time delivery system with supplies and components delivered on a schedule to minimize on-site storage needs.

Construction Equipment and Materials

Standard construction equipment would be used during construction, including earthmoving equipment (e.g., bulldozers, excavators, backhoes) and road-building equipment (e.g., compactors, scrapers, graders). Construction equipment would include air compressors, all-terrain passenger vehicles, backhoes, cranes, a drill rig, flat-bed trucks, a front-end loader, pickup trucks, a pile driver, a trencher, and water trucks.

Water Use During Construction

Water use during construction would primarily consist of watering for dust control. Water for dust control would be applied by water trucks throughout the duration of construction activities. Nonpotable groundwater would be supplied by the JCSD. The Padre Dam Municipal Water District would also be a viable secondary source of water (INTERA Incorporated 2025b) (Appendix G.5, Updated Groundwater Resources Investigation Report). The total proposed extraction of nonpotable groundwater for project construction of both phases is approximately 67.9 acre-feet. Phase I would use 14.8 acre-feet or approximately 5.82 million gallons, provided by 6,000-gallon capacity water trucks. Phase II would use 53.1 acre-feet or approximately 17.3 million gallons, provided by 6,000-gallon capacity water trucks (INTERA Incorporated 2025a) (Appendix G.4, Revised Water Demand Memorandum). Activities requiring water use during construction consist of the following:

- **Dust control.** The majority of the project's construction-related water demand would be for the purpose of dust control. The initial clearing, grubbing and grinding of each array subarea would require the most intensive use of water. During this phase of construction, which is expected to occur in the first 2 to 3 months following mobilization, heavy equipment (e.g., tractors/loaders/backhoes, scrapers, skid steer loaders, graders, and dumpers/tenders) would be clearing woody vegetation, rocks, and other debris/vegetation over large contiguous areas of each site, requiring relatively large volumes of water to control dust. Watering for dust control would continue to occur throughout the construction period but would be geographically limited (to active work areas), and less intense in nature as tracker installation and assembly proceeds. This is because a permeable nontoxic soil binding agent would be applied to any bare inactive areas following initial site clearing. Construction-related water demand estimates for dust control have accounted for the entire development footprint and construction duration of each phase and have included a contingency for high wind days.
- **Mass grading.** Various levels of cut/fill are required to level sites and properly prepare foundations, including the compaction and watering necessary to achieve engineered specifications. Water requirements associated with hydration of fills are limited to surfaced roads, parking lots and facility foundation pads (e.g., warehouse building, the collector substation, and inverters), and are usually dependent on the difference between the "optimum" and actual soil moisture content on the construction site. The lowest value of soil moisture observed during geotechnical exploration of each site and the total volume of earthwork (350,000 cubic yards) anticipated was used to estimate water demands for mass grading.
- **Soil stabilization.** Following initial clearing, grubbing, and grinding of each site, a permeable nontoxic soil binding agent would be applied to the prepared surfaces of the site to stabilize soils.

Because active operational areas such as fire, access, and service roads would be surfaced with disintegrated granite, application of soil binders would be limited to bare surfaces not being actively used for construction.

- **Hydroseeding.** The portions of the project site not overlain by roads, inverters, battery storage containers, the substation, and the switchyard facilities shall be reseeded with a native hydroseed mix to provide vegetation cover during project operations. The hydroseed would be applied immediately following the completion of soil disturbing activities during project construction. Water requirements for hydroseed application would be approximately 2,500-gallons per acre.
- **Fire protection**. The project would provide six permanent 10,000-gallon water storage tanks. These tanks would be installed at the start of construction and would be labeled "fire water" using reflective paint. These tanks would either be elevated or equipped with a pump and would not suffer appreciable evaporation losses because they would be enclosed and watertight.

1.4.1.9 Decommissioning

Dismantling

The aboveground (detachable) equipment and structures would be disassembled and removed from the site when it becomes time to remove or replace equipment. Detachable elements include all PV modules and support structures, battery storage units, inverters, transformers, and associated controllers. Removal of the fencing, substation, and aboveground conductors on the transmission facilities would also be implemented. Underground collector and transmission components would be removed. Most of these materials can be recycled or reclaimed. Remaining materials that cannot be recycled or reclaimed would be limited and would be contained and disposed of off-site, consistent with the County's Construction and Demolition Debris Recycling Ordinance (County Code Sections 68.511–68.518).

Recycling

Most of the components of the proposed solar facility are made of materials that can be readily recycled because the components of the PV modules can be broken down. Generally, if the PV panels can no longer be used in a solar facility, the aluminum can be resold, and the glass can be recycled. Any hazardous components of the PV panels would be removed and properly disposed of off-site prior to recycling. Other components of the solar facilities, such as the rack structures and mechanical assemblies, can be recycled as they are made from galvanized steel. Equipment such as inverters, transformers, and switchgear can be either reused or their components recycled.

Removal Surety

The final decommissioning plan(s) that would be provided prior to issuance of the building permits for the proposed project would comply with Section 6954.b.3 (d) of the County Zoning Ordinance for removal surety as follows:

> The operator shall provide security in the form and amount determined by the Director to ensure removal of the Solar Energy System. The security shall be provided to PDS [Planning & Development Services] prior to building permit issuance. Once the Solar Energy System has been removed from the property pursuant to a demolition permit to the satisfaction of the Director, the security may be released to the operator of the Solar Energy System.

Financial responsibility for decommissioning would be an obligation of the owner of the solar facility.

Water Use During Decommissioning

Activities associated with decommissioning would not include substantial earthmoving. It is estimated that the amount of water necessary to dismantle the solar facility would be less than that required for construction, because there would be no need to use water to hydrate and compact on-site fills. The activities associated with decommissioning would not include grading. The only water demand during decommissioning would be for dust suppression and would be provided by 6,000-gallon capacity water trucks. Phase I would require a water demand of 2.4 acre-feet for decommissioning and Phase II would require a water demand of 4.2 acre-feet for decommissioning, for a total of 6.6 acre-feet (INTERA Incorporated 2025a) (see Appendix G.4).

1.5 Intended Uses of the EIR

This EIR is an informational document which will inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. This EIR has been prepared in accordance with the requirements of the *County of San Diego Environmental Impact Report Format and General Content Requirements* (County of San Diego 2006) and the statute and guidelines of the California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq., and California Code of Regulations (CCR), 14 CCR 15000 et seq., respectively). The NOP and Initial Study prepared for the project were released for public review on March 23, 2023, and are included as Appendix A, NOP, Initial Study, and Public Comments, to this EIR. This EIR addresses issues identified in the Initial Study and in comments received during the public scoping process.

This EIR will be made available for review by members of the public and public agencies 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" as stated in the State CEQA Guidelines, Section 15204 (14 CCR 15000 et seq.).

The County is the designated Lead Agency and is responsible for the preparation of this document. The County Planning Commission is tasked with the decision to recommend approval or denial of the proposed project. The County Board of Supervisors will be tasked with the ultimate decision to approve or deny the proposed project. Any agreements (e.g., fire and emergency services) would also require Board approval. The County will use the information in this EIR to consider potential impacts on the physical environment associated with the project.

The County will decide whether to certify that this EIR is complete and in compliance with CEQA, using written comments received on the EIR in that process. The County will also decide whether to approve or deny the project by weighing environmental, economic, and social factors to determine the most appropriate course of action. Additionally, a Mitigation Monitoring and Reporting Program (MMRP) would be produced for the project. If the EIR is certified and the project approved, agencies with permitting authority over all or portions of the project may use the EIR and MMRP as the basis for their evaluation of environmental effects of the project and approval or denial of applicable permits.

1.5.1 Requested Action and Required Permits

Various permitting requirements would need to be met prior to implementation of the proposed project. Table 1-3 summarizes federal, state, and local permits that may be required for the project and the agencies that are expected to use the EIR in their decision-making and permitting processes. Additional agency approvals/permits not listed below may also be required.

Table 1-3. Requested Actions and Required Permits

Agency Authority	Approval/Permit Required
Federal and State Agencies	
U.S. Department of Homeland Security, U.S. Customs and Border Protection	Consistency with U.S. Customs and Border Protection safety and access policies
California Department of Transportation (Caltrans)	Transportation permits for the movement of vehicles or loads exceeding the limitations on the size and weight contained in Division 15, Chapter 5, Article 1, Section 35551, of the California Vehicle Code (1983) Encroachment and trip permits for specialized haul trucks as necessary
California Department of Fish and Wildlife (CDFW)	Lake and Streambed Alteration Agreement
Regional Water Quality Control Board (RWQCB)	Clean Water Act Waste Discharge Requirements
Local Agencies	
County of San Diego	Major Use Permit County right-of-way permits (construction permit, excavation permit, and encroachment permit) Grading permit (preliminary grading plan PDS2019-LDGRMJ-30240) Building permits Blasting permit Improvement plans Exploratory borings, direct-push samplers, and cone penetrometers permits Waiver of Board Policy I-111 Resource Management Plan
County of San Diego Fire Protection District	Fire and Emergency Protection Services Agreement
San Diego Metropolitan Transit System	Right of Entry Permit

1.5.2 Related Environmental Review and Consultation Requirements

Pursuant to the State CEQA Guidelines (Section 15365), the County prepared an Initial Study and NOP for this EIR. The NOP was publicly circulated for 30 days beginning March 23, 2023. The County held a public scoping meeting on April 12, 2023, at the Backcountry Resource Center in Boulevard, California to provide responsible agencies and members of the public with information about the CEQA process and to provide further opportunities to identify environmental issues and alternatives for consideration in the EIR. Public comments received during the NOP scoping process are provided in Appendix A and were used to inform analysis in the Draft EIR.

1.6 Project Inconsistencies with Applicable Regional and General Plans

Planning documents reviewed for the project include the County's General Plan (County of San Diego 2011), *Mountain Empire Subregional Plan, San Diego County General Plan* (County of San Diego 2016), and *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (County of San Diego 2013). Other planning documents reviewed for the proposed project include the Climate Action Plan (County of San Diego 2024b), Regional Air Quality Strategy for the San Diego County Air Pollution Control District (County of San Diego 2022), the California Regional Water Quality Control Board (RWQCB) Basin Plan for Region 7, Colorado River (RWQCB 2019), and the County of San Diego MSCP

(County of San Diego 2025b). In addition, the County has reviewed the draft Conservation Strategy for the future East County MSCP (County of San Diego 2024a). The potential for the project to result in inconsistencies is discussed and analyzed in Section 3.1.6, Land Use and Planning, of this EIR.

1.7 List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

State CEQA Guidelines Section 15355 defines cumulative effects as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (Table 1-4 and Figure 1-13).

Table 1-4. Cumulative Scenario—Reasonably Foreseeable, Approved and Pending Projects

Map ID	Project	Type	Status	Distance from Project Site	Project-Related Impacts
1	CAMPO WIND PROJECT WITH BOULDER BRUSH FACILITIES: Generation of up to 252 MW consisting of up to 60 turbines. The project study area covers approximately 2,200 acres on the Campo Reservation and approximately 280 acres on private lands within the county.	W	A	2.8 miles northeast	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Hazards and Hazardous Materials, Noise, Tribal Cultural Resources, Traffic and Transportation, Wildfire
2	JACUMBA SOLAR PROJECT: 20 MW of solar energy on 108 acres of a 304-acre site	S	C	7.7 miles east	Aesthetics, Biological Resources, Cultural Resources, Hazards and Hazardous Materials, Noise, Paleontological Resources
3	JACUMBA VALLEY RANCH (JVR) ENERGY PARK: up to 90 MW of solar power and 90 MW (360 MWh) of battery storage capacity on 623 acres	S	A	5.5 miles east	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology, Soils, and Seismicity, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, Noise, Paleontological Resources, Tribal Cultural Resources, Wildfire
4	RUGGED SOLAR: 4 solar energy facilities totaling 74 MW on 764 acres	S	A	2.4 miles north	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Noise
5	TULE WIND PROJECT: Includes 5 wind turbines, 5-acre temporary concrete batch plant, 5-acre on-site collector substation, gen-tie to Boulevard Substation, and 3 wells for groundwater extraction	O	C	0.1 mile north	Hydrology and Water Quality: MUP issued August 8, 2012, which required groundwater monitoring through November 2017
6	LIVE OAK SPRINGS WATER SYSTEM IMPROVEMENTS PROJECT: Potable water distribution system improvements for community of Live Oak Springs	PF	UC	3.4 miles northwest	None – MND adopted June 29, 2022
7	JACUMBA AIRPORT PERIMETER FENCE: Installation of a perimeter fence at Jacumba Airport; part of the 5-year Airport Capital Improvement Plan	PF	C	6.1 miles east	Unknown: Conducted under a statutory exemption

Notes: PF = Public Facilities and Utilities; S = Solar; W = Wind; O = Other; MUP = Major Use Permit; A = Approved; UC = under construction; UR = under review; C = Completed; kV = kilovolt; MW = megawatt; ECO = East County; TM = Tentative Map.

1.8 Growth-Inducing Impacts

Section 15126.2(e) of the State CEQA Guidelines requires an EIR to include a detailed statement of a proposed project's anticipated growth-inducing impacts. The analysis of growth-inducing impacts must discuss the ways in which a proposed project could foster economic or population growth or the construction of additional housing in the surrounding environment. The analysis must also address project-related actions that would remove existing obstacles to population growth, tax existing community service facilities and require construction of new facilities that cause significant environmental effects, or encourage or facilitate other activities that could, individually or cumulatively, significantly affect the environment. A project would be considered growth-inducing if it induces growth directly (through the construction of new housing or increasing population) or indirectly (such as increasing employment opportunities that would increase the population of the area or eliminating existing constraints on development that would encourage construction). Under CEQA, growth is not assumed to be beneficial, detrimental, or of little significance to the environment.

The project does not propose any residential use, including but not limited to a residential subdivision, mobile home park, or construction of a single-family residence that would cause an increase in population. The project also does not include a recreational component, such as a hotel, resort, campground, or other facility that would attract or accommodate an increase in visitors to the area that would indirectly cause temporary increases in population. The project would employ up to 210 workers during construction. Local hires will be encouraged when feasible, and it is not anticipated that any non-local hires would permanently relocate to the area with their families. The limited scale and temporary nature of solar facility construction and operation would not affect the employment base within the San Diego region. Once construction is complete, the project would not have any full-time personnel on-site, and the occasional operations and maintenance workers are not anticipated to relocate near the project site.

Additionally, the development of the project would not induce substantial population growth in the Mountain Empire Subregion. The project would not include any new homes or businesses and would not directly induce substantial population growth. The project would produce electricity which would be added to the electrical grid at the Boulevard substation and would be available to the Mountain Empire Subregion but would not extend electrical distribution service to new areas such that it would indirectly induce population growth. The project would not propose any physical or regulatory changes that would remove a restriction to, or encourage population growth in the area, including, but not limited to, large-scale residential development or accelerated conversion of homes to commercial or multifamily use. The proposed project does not include regulatory changes such as General Plan amendments encouraging population growth, specific plan amendments, zone reclassifications, sewer or water annexations; or Local Agency Formation Commission annexation actions that would remove a restriction to population growth in the area.

As previously discussed in Section 1.1, Project Objectives, the project is intended to create utility-scale solar energy to assist in achieving the state's RPS, improve reliability in the region by providing a source of local renewable energy generation, assist the state in achieving its energy storage targets by providing a new source of energy storage, invest in the local economy, and create construction jobs. The project would supplement the region's energy supply and would not encourage housing growth.

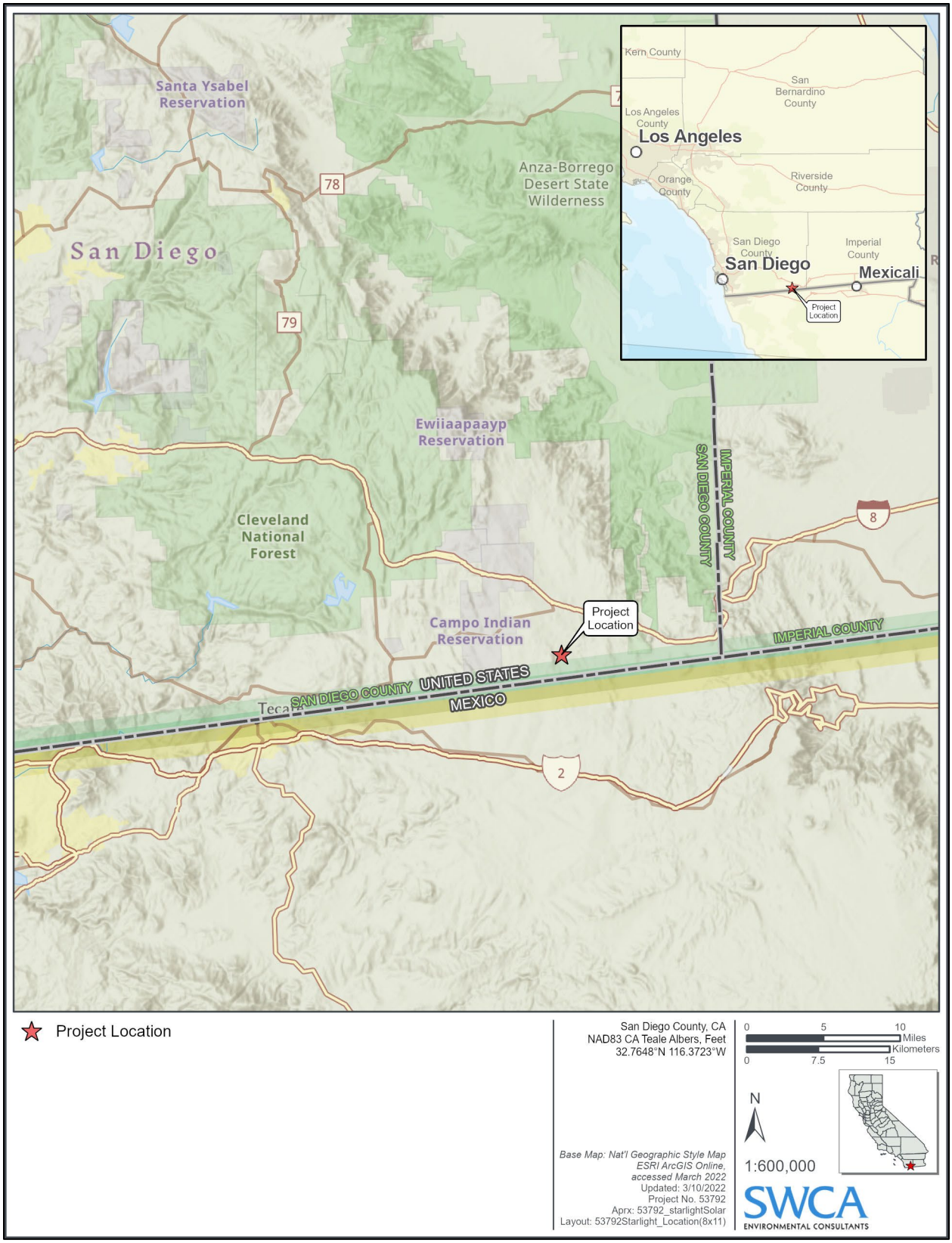

Figure 1-1. Regional Location Map

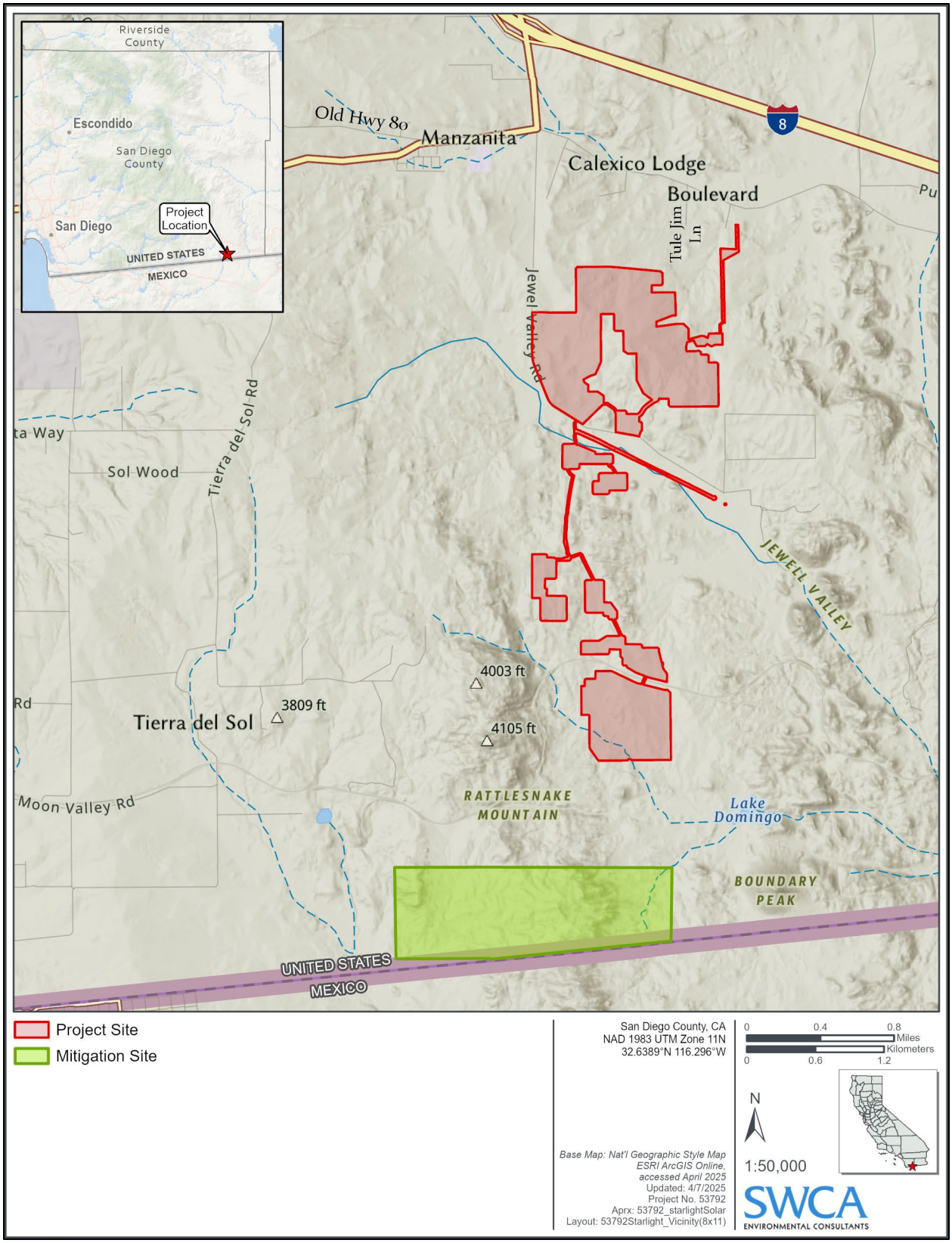

Figure 1-2. Vicinity Map

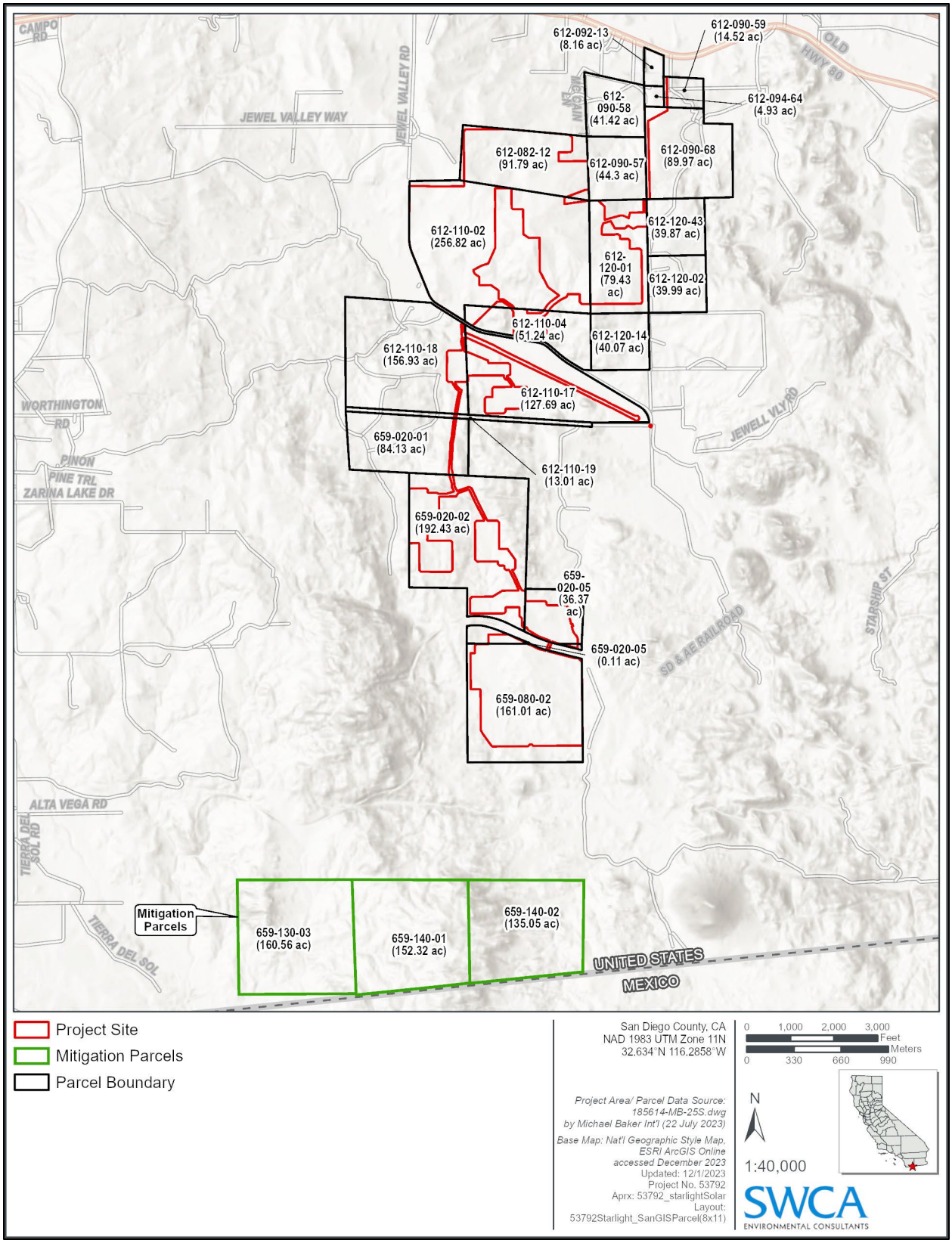

Figure 1-3. Project Site APNs

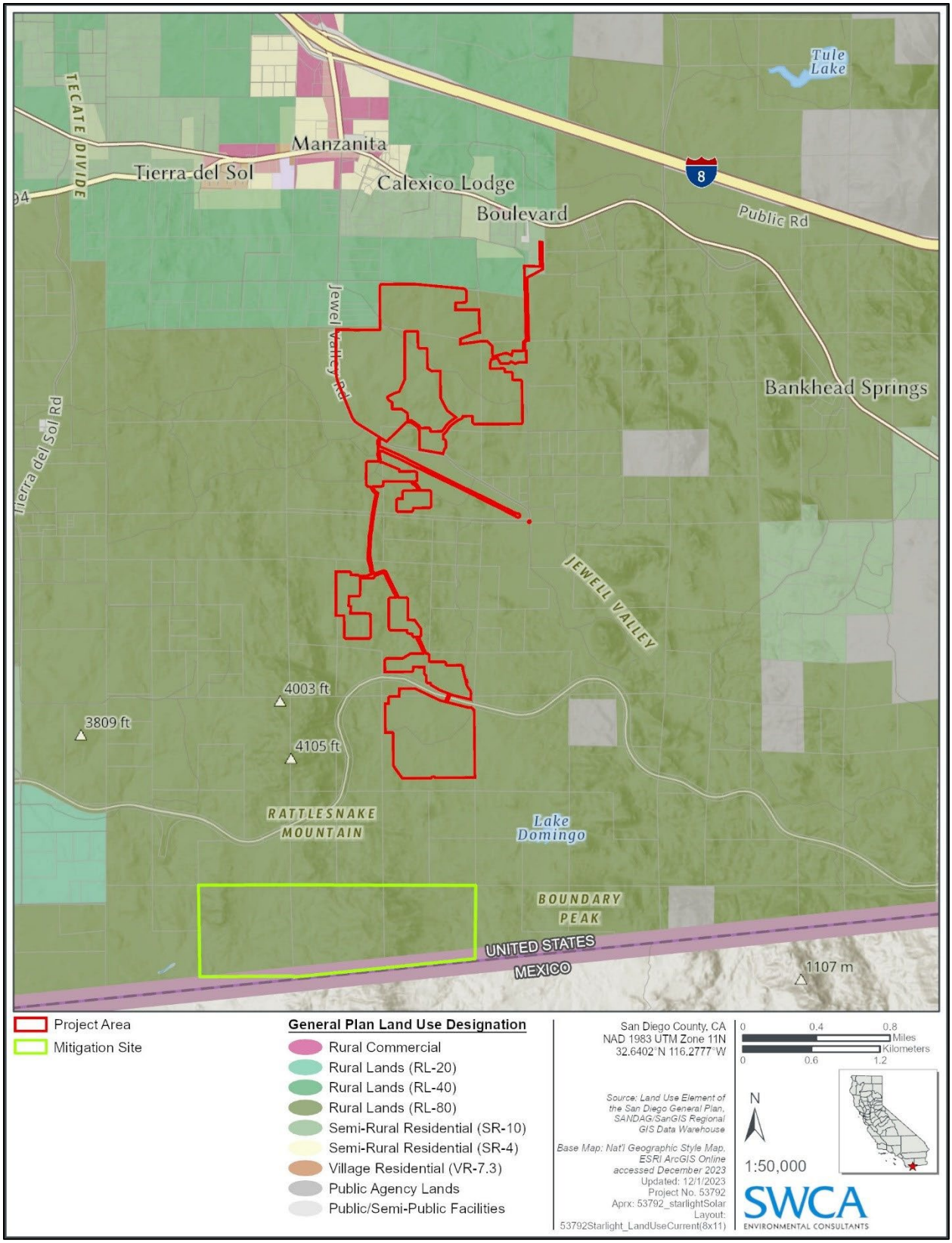

Figure 1-4. Land Use Designations Map

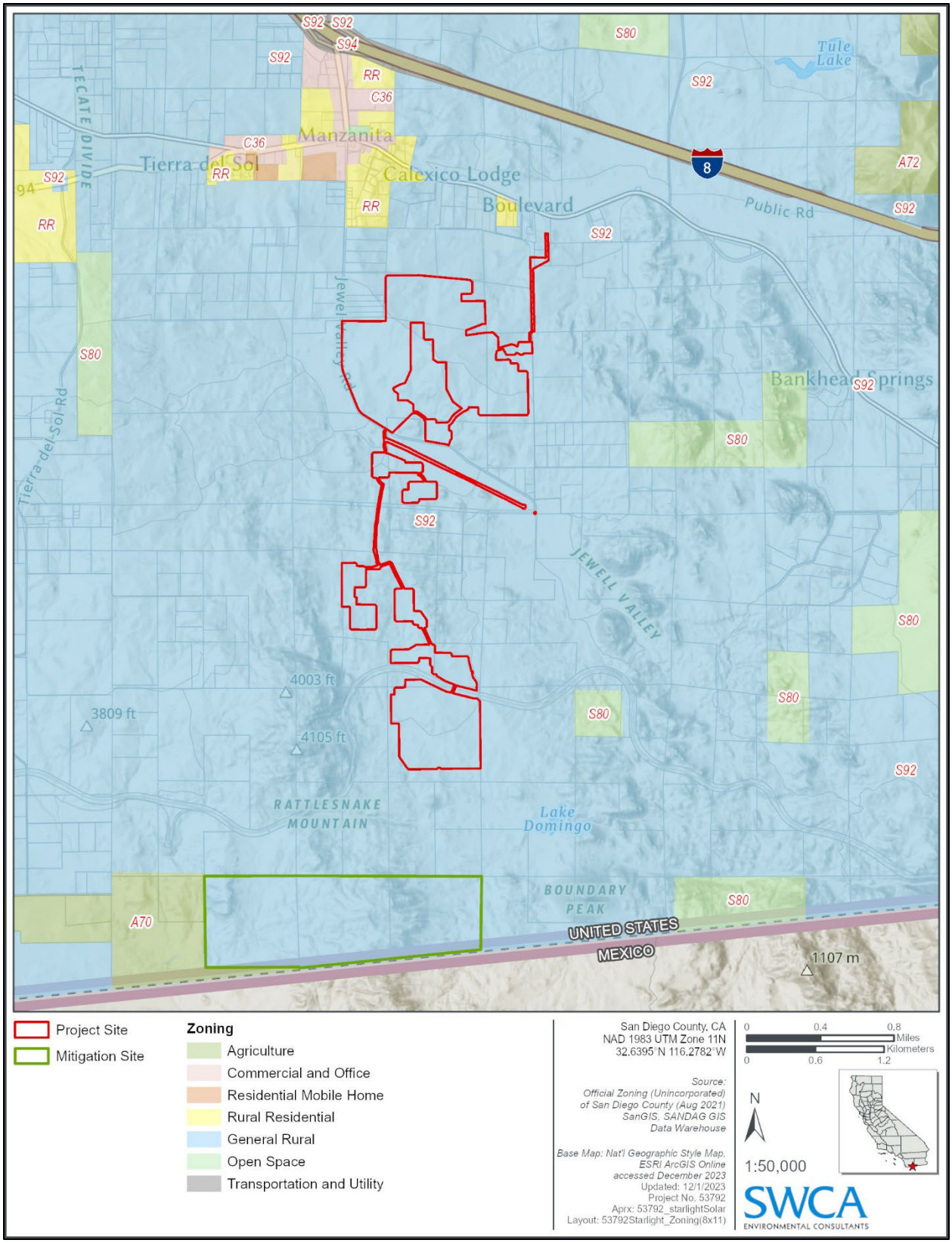

Figure 1-5. Zoning Map

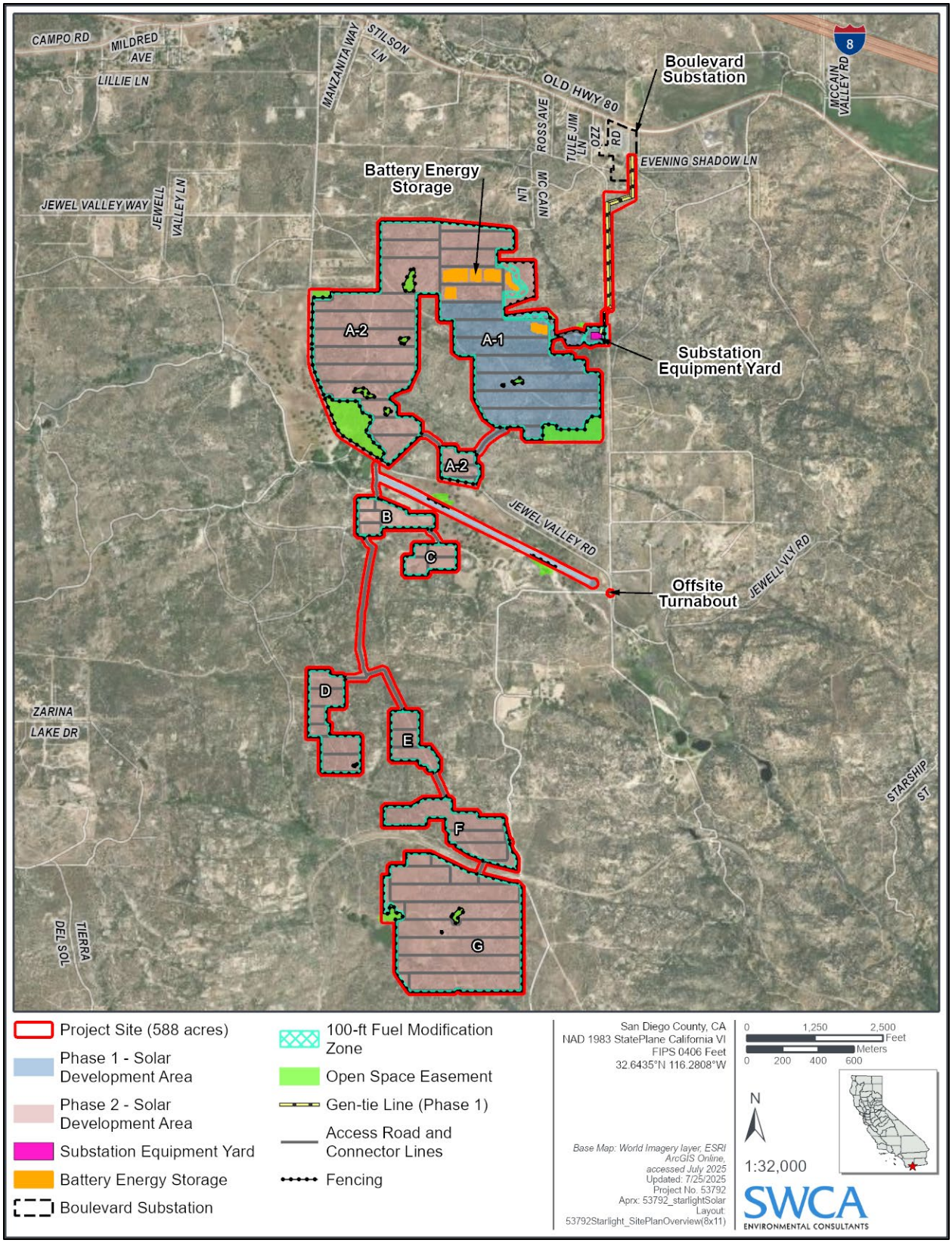

Figure 1-6. Project Site Plan

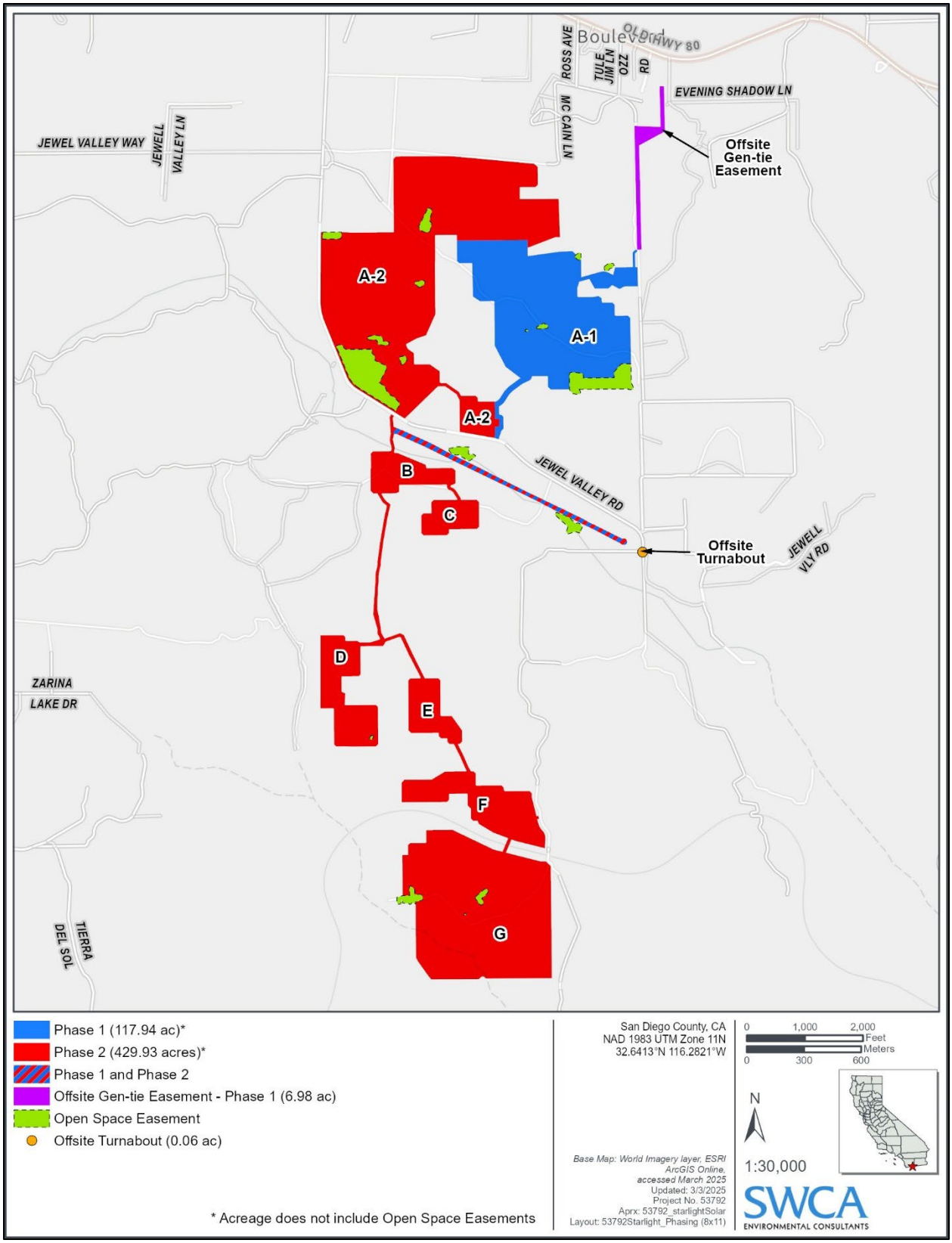

Figure 1-7. Project Phasing

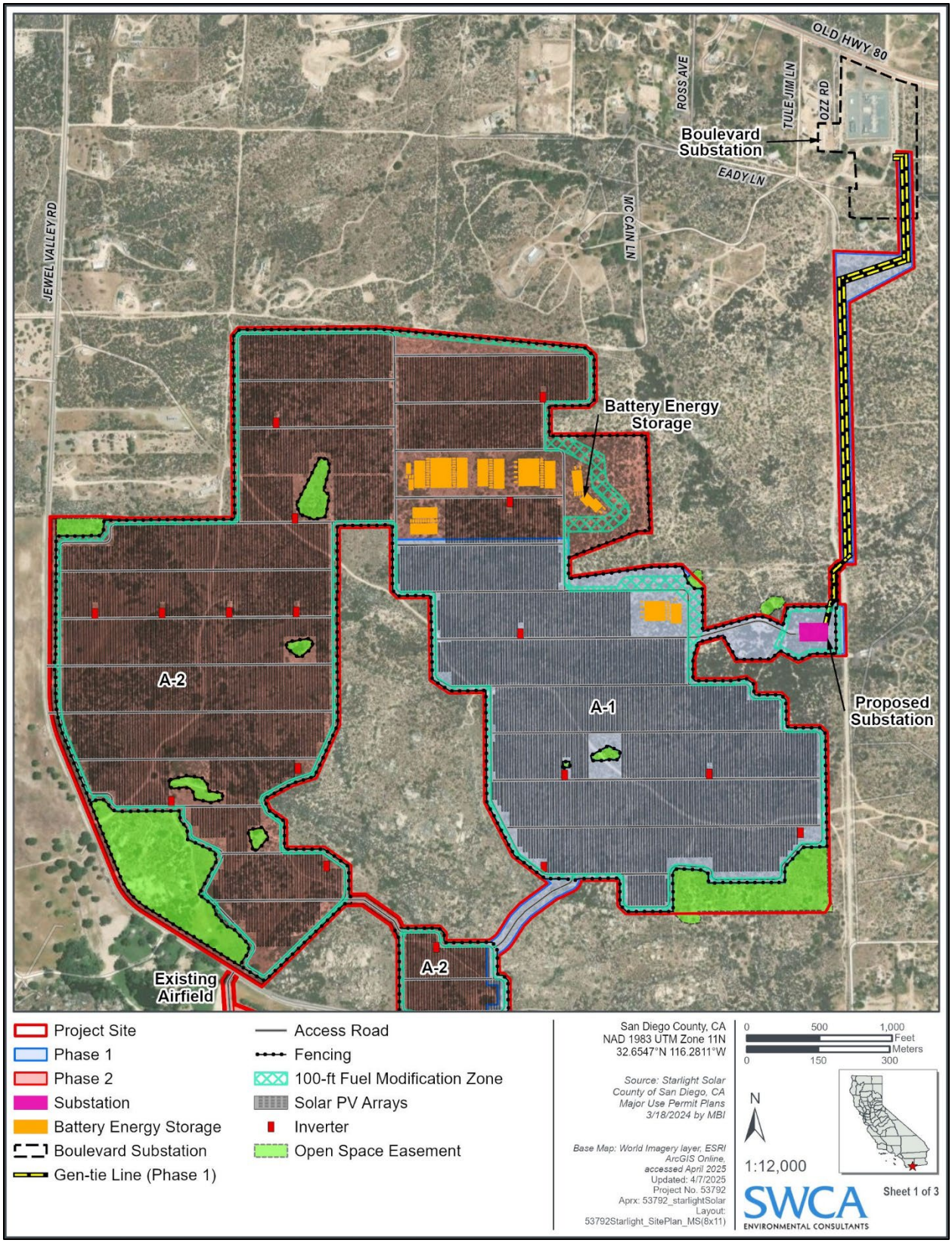

Figure 1-8. Project Site Plan with Phasing (A1–A2)

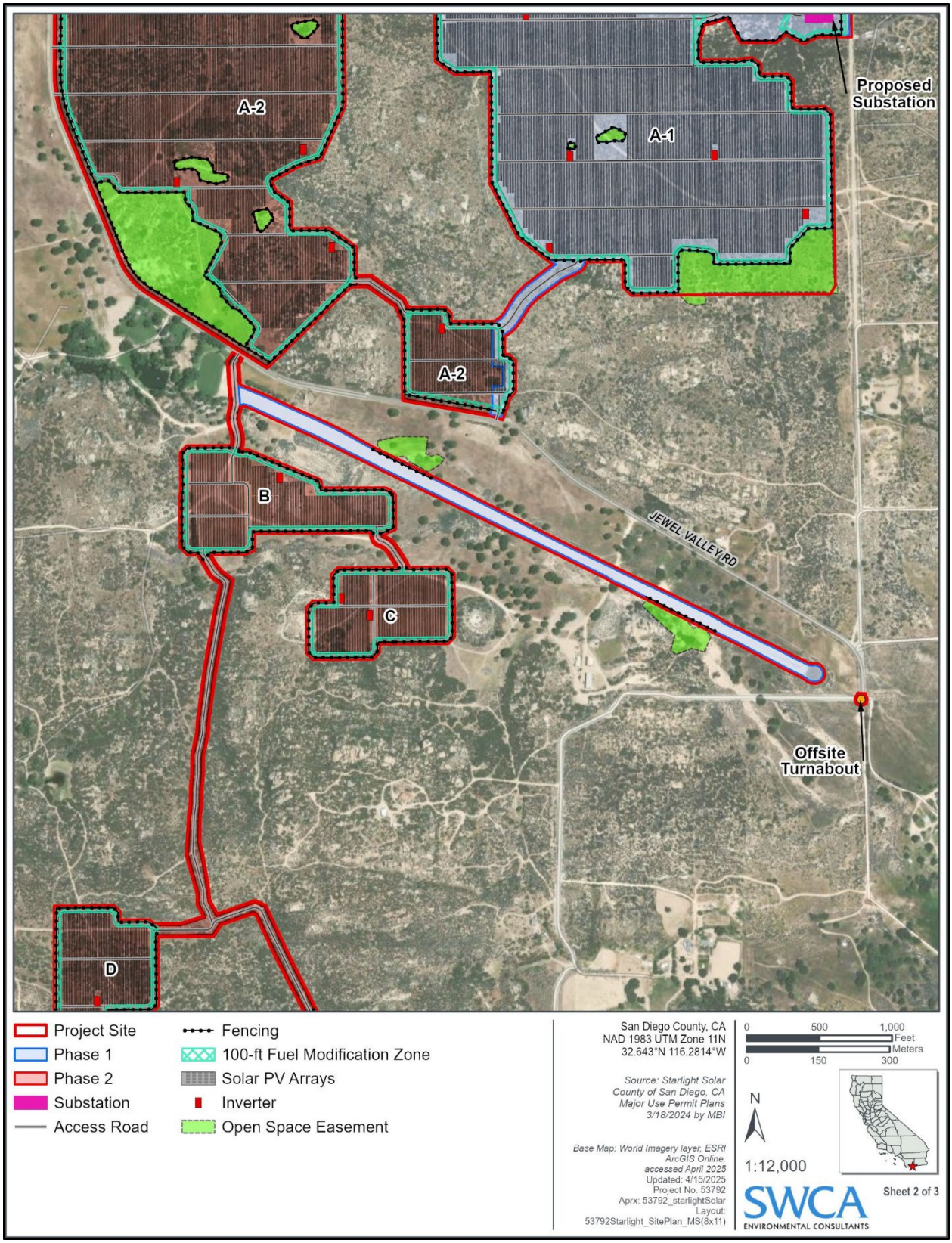

Figure 1-9. Project Site Plan with Phasing (A1–D)

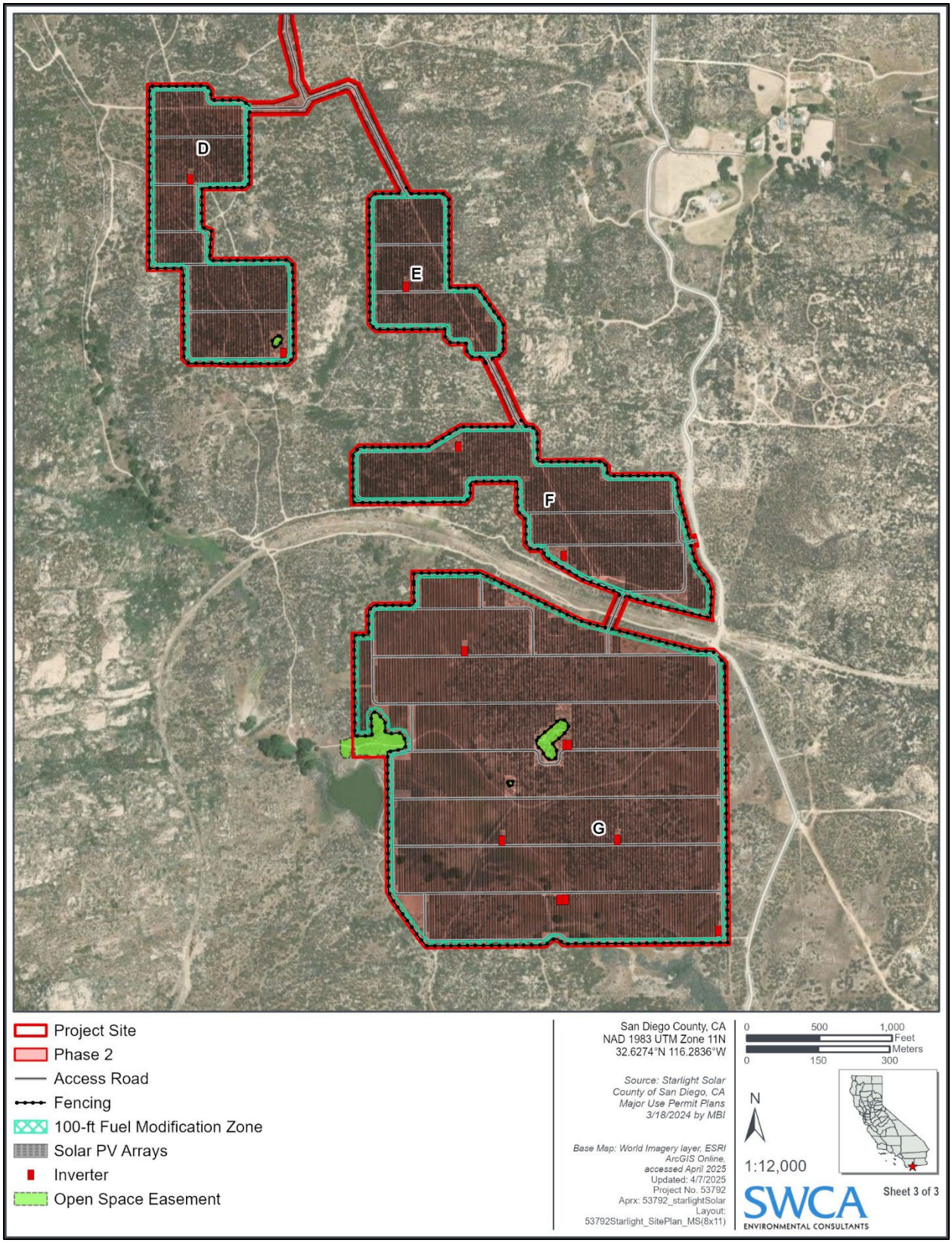

Figure 1-10. Project Site Plan with Phasing (D–G)



Figure 1-11. Solar Modules and Support Structures



Figure 1-12. Battery Storage Container

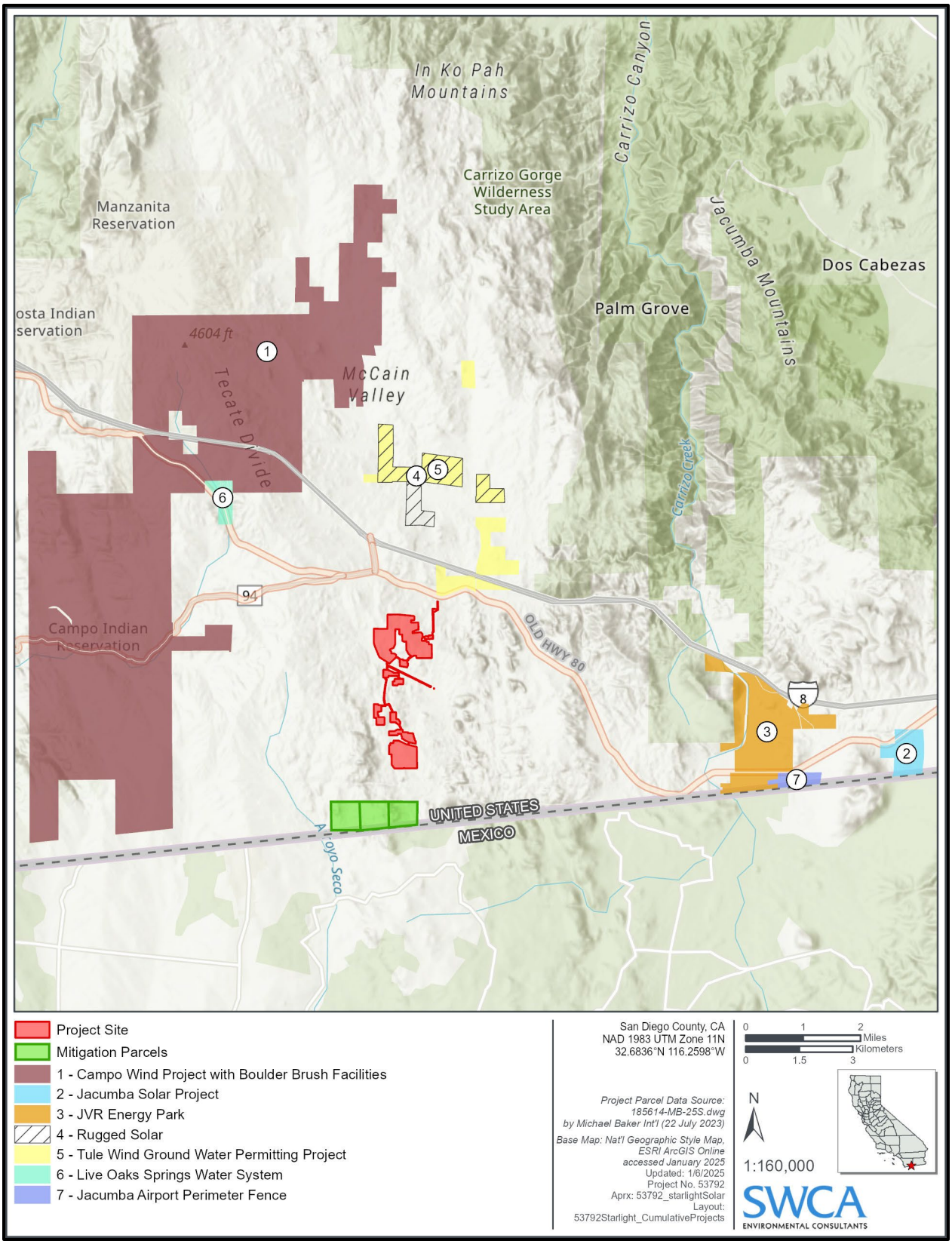

Figure 1-13. Past, Present and Reasonably Anticipated Future Projects

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CHAPTER 2.0 SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

This chapter of the environmental impact report (EIR) discusses environmental effects that were identified as significant in the course of analyzing the environmental effects associated with the proposed project. Each environmental issue area describes existing conditions, regulatory setting, analysis of project effects and determination as to significance, cumulative impact analysis, significance of impacts prior to mitigation, mitigation, and conclusion. The environmental issue areas addressed in Chapter 2.0 are as follows:

- Aesthetics (Section 2.1)
- Biological Resources (Section 2.2)
- Cultural Resources (Section 2.3)
- Hydrology and Water Quality (Section 2.4)
- Noise (Section 2.5)
- Tribal Cultural Resources (Section 2.6)
- Wildfire (Section 2.7)

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2.1 Aesthetics

This section of the Environmental Impact Report (EIR) discusses potential impacts to aesthetic resources resulting from the implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project, which were prepared in accordance with the *Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources* (County of San Diego 2007) and *Guidelines for Determining Significance and Report Format and Content Requirements – Dark Skies and Glare* (County of San Diego 2009):

- *Visual Resources Assessment for the Starlight Solar Project* (SWCA Environmental Consultants [SWCA] 2025) (Appendix C of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the size and sprawl of the project, proximity to residents, potential glare impacts, effects to visual quality and views from scenic vistas, impacts to nearby state-designated scenic highways, light pollution, and effects to community character. These concerns are addressed in this section of the EIR where applicable, and within the visual resources assessment (see Appendix C). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

In addition, the Applicant coordinated with the Boulevard Community Planning Group and members of the Boulevard community to solicit input on the project design and identify special areas of concern for visual impacts from the project. After receiving feedback regarding the visibility of the solar arrays and associated equipment from both the public and the Boulevard Community Planning Group, the project design plans were prepared for submittal to the County of San Diego (County).

2.1.1 Existing Conditions

2.1.1.1 Regional Context

The project site is in unincorporated San Diego County, south of the community of Boulevard and approximately 0.9 mile north of the U.S.–Mexico border (Figure 1-1 in Chapter 1.0, Project Description, Location, and Environmental Setting). The community of Boulevard is approximately 65 square miles and includes the communities of Manzanita, Tierra del Sol, and Live Oak Springs. The community of Boulevard consists of several commercial buildings and residences approximately 1 mile northwest of the project site. Other human-made elements include the nearby San Diego Gas and Electric Company (SDG&E) Boulevard substation and related transmission line infrastructure, Interstate 8 (I-8), a California Department of Transportation (Caltrans) materials yard approximately 0.75 mile northeast of the project site, a U.S. Border Patrol station, and two commercial-scale wind turbine facilities located approximately 4 miles northwest of the project site on the Campo Indian Reservation and north of I-8. Jewel Valley Road crosses the project site diagonally, from northwest to southeast, connecting residences south of the project site to I-8.

The regional context is a product of both natural and built elements, including uses such as rural and agriculture uses, ranches, rural residential, limited commercial, and public infrastructure uses. The natural landscape includes rolling and varied topography, patterns of native vegetation, rock outcroppings, and open space, which all contribute to a moderate to high regional visual character and quality.

I-8 is a primary interstate travel route with approximately 8,000 average daily trips and is identified as an Eligible State Scenic Highway for the segment that is near the project site (Caltrans 2017). Old Highway 80 is a two-lane local travel route that passes approximately 0.65 mile north of the project site and is adjacent to the Boulevard substation. Old Highway 80 connects to the McCain Valley Recreation Area on

Bureau of Land Management (BLM)–administered lands approximately 3 miles north of the project site. Jewel Valley Road is a public community roadway that bisects the project site into north/south sections, connects to residences south of the project site, and to the community of Boulevard and I-8. Other non-paved private roads in the vicinity provide local access to nearby residences. South of the project site, Empire Ranch currently contains a ranch compound with residential buildings, structures for livestock, private roads, and an airstrip.

The region has abundant scenic views and landscapes. Many of these visual and scenic resources are somewhat unique and play a major role in the regional and community visual quality and character. The high visual quality of the region is due in part to scenic vistas which often include views of the rolling topography, patterns of native vegetation, distant mountains and ridgelines, rock outcroppings, and rural and open space land uses. The overall sparse and modestly scaled development supports the visual cohesiveness of the semi-rural character of the area. The Boulevard area's confluence of high elevation, insolation, prevalent winds, and two high-voltage transmission lines has led to a high concentration of utility-scale renewable energy projects in San Diego County. Existing utilities and other infrastructure seen throughout the region are the type and frequency typical of visual character elements seen in this type of landscape.

2.1.1.2 Project Site and Surrounding Areas

The project site encompasses approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.9 mile north of the U.S.–Mexico border. The entire project site is undeveloped. It is located within the boundaries of the privately owned Empire Ranch, an approximately 3,795-acre ranch that stretches from south of Old Highway 80 to the U.S. border with Mexico. Adjacent to the project site boundaries, the Empire Ranch currently contains a ranch compound with residential buildings, structures for livestock, private roads, and an airstrip no longer in use. Empire Ranch also contains limited agricultural and ranching uses. A section of the abandoned San Diego and Arizona Eastern Railway runs east to west through the southern portion of the project site. Boundary Creek also flows in a southeast direction directly south of Jewel Valley Road.

The project site is surrounded by unpaved roads, rural residential development, the SDG&E Boulevard substation, and undeveloped land. The Boulevard substation is located on approximately 2 acres to the northeast of the project site, directly south of Old Highway 80. It includes a variety of visible equipment and infrastructure, including tall lattice steel towers, transformers, and fencing. Remnants of Boundary Creek flow southeast through the project site directly south of Jewel Valley Road.

Jewel Valley Road bisects the project site into somewhat north/south sections and connects to residences south of the project site and to the community of Boulevard and I-8 north of the project site. Non-paved roads in the project site provide local access to nearby residences. Primary access to the project site would be provided by Jewel Valley Road, which runs north to south and connects to Old Highway 80 in the town of Boulevard.

The project site is topographically diverse. The project site is in a geographic transitional zone of San Diego County between the desert region and Peninsular Ranges. The visually prominent Laguna Mountains are located north of the project site. In the northern portion of the project site (north of Jewel Valley Road), the east- and south- facing sloping hillsides are characteristic of the project site, and a prominent ridgeline known as the Tecate Divide is located in the southern portion of the site.

Most of the existing slopes and hillsides range in steepness from 0% to 24%. Of the 588-acre project site, approximately 567 acres are less than 25% slope, approximately 19.3 acres are from 25% to 50% slope,

and approximately 1.2 acres are steeper than 50% slope. Within the project site, no slopes steeper than 25% have a vertical rise of 50 feet or more.

The visual character of the project site is distinctly rural, and the landform and landcover of the project site is generally representative of the area. The landscape is characterized by rolling hills with scattered granite boulders and outcroppings and patterns of native vegetation. There are 14 natural vegetation communities and land cover types and three additional cover types within the category of disturbed or developed land. Transitional mountain chaparral vegetation such as mixed chaparral and chamise (*Adenostoma* spp.) is seen throughout the area. Vegetation for the project site itself is primarily chaparral, and native grasses and forbs with scattered juniper (*Juniperus* spp.). Larger trees and ornamental vegetation are associated with commercial areas and scattered residences and ranches. The site's rolling topography and hillsides, patterns of native vegetation, and rural use all contribute to a moderate to high existing visual quality.

2.1.1.3 Scenic Highways and Recreation Areas

Scenic Highways

There are no officially state-designated scenic highways in the vicinity of the project site. There are five Officially Designated Scenic Highways in San Diego County, and the nearest (State Route [SR] 78 from the west to east boundary of Anza-Borrego Desert State Park) is located over 30 miles from the project site. However, I-8 is an Eligible State Scenic Highway from SR 67 to the eastern San Diego County border and SR 94 is an Eligible State Scenic Highway from SR 125 to its connection with I-8 (Caltrans 2017). At its closest location, I-8 is located approximately 0.6 mile north of the northern project boundary and SR 94 is located approximately 1 mile north of the northern project boundary.

The Conservation and Open Space Element of the *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) establishes a County Scenic Highway System consisting of scenic corridors that include county roads, state routes, and interstate freeways. Five scenic corridors identified in the Conservation and Open Space Element pass through the Mountain Empire Subregion Plan Area (County of San Diego 2011a). The County-designated scenic corridor nearest to the project site is Old Highway 80, through Boulevard and Jacumba. Old Highway 80 is a designated California State Historic Route. At its closest location, Old Highway 80 is approximately 0.1 mile north of the northern project boundary (Figure 2.1-1).

Recreation Areas

The project site is located on and surrounded by private land and is not used for public recreational purposes. The proposed project would be located in the Mountain Empire Subregion of southeastern San Diego County, an approximately 285,000-acre, largely rural, low-density population area. There are several parks and open space areas in this subregion, including the McCain Valley Resource Conservation Area and Land Cooperative, located approximately 3 miles north of the project site; Table Mountain, located approximately 8.1 miles east of the project site; the Carrizo Wilderness Area, located approximately 8.2 miles north of the project site; In-Ko-Pah Park, located approximately 10 miles east of the project site; and Mountain Springs County Park, located approximately 9.8 miles east of the project site. Despite an abundance of open space, the Boulevard Subregional Planning Area does not have any dedicated community parks (County of San Diego 2011b).

The Jewel Valley Road Pathway is proposed along Jewel Valley Road, which intersects the project site (County of San Diego 2007). The pathway is estimated to be 3.20 miles once completed and would primarily act as a north/south connector for other proposed and existing trails in the area. Jewel Valley Road Pathway is proposed as a part of the County's Community Trails Master Plan. Pathways are defined

as a non-motorized transportation facility located within a parkway or road right of way. Pathways are intended to serve both circulation and recreation purposes and are an integral part of a functional trail system (County of San Diego 2007). The project does not include the construction of this trail.

2.1.1.4 Project Viewshed

The visual environment can be vast; therefore, for purposes of analyzing impacts, boundaries must be placed on it. The area within those boundaries is commonly referred to as the viewshed. A viewshed is composed of all the surface areas visible from an observer's viewpoint. The limits of a viewshed are defined as the visual limits of the views located from the project. The viewshed also includes the locations of viewers likely to be affected by visual changes brought about by project features.

The project viewshed is part of San Diego County's geographic transitional zone between the desert region and the Peninsular Ranges. The Laguna Mountains are prominently located to the north of the project site. The viewshed is characterized by rolling hills covered by granite boulders and transitional mountain chaparral vegetation such as mixed chaparral and some chamise.

Because of the project's large expanse, extensive layout, and varied landform, the project viewshed extends over a wide area in the region and would have a potential effect on a number of public scenic vistas throughout the area. Viewing distances would range from as close as 60 feet along Jewel Valley Road to long-range views of more than approximately 2 miles from sections of I-8. Important public views that would be affected would include sections of I-8, SR 94, Jewel Valley Road, Tierra del Sol Road, and other local roadways.

Although the undulating topography of the region limits the viewshed from certain viewpoints, the topography also elevates much of the project site and can result in greater visual exposure to the surrounding area. As seen from many of the surrounding viewpoints, portions of the project would be seen on either a primary or secondary ridgeline, extending above the horizon line.

2.1.2 Regulatory Setting

2.1.2.1 Federal Regulations

Bureau of Land Management Eastern San Diego County Resource Management Plan and Record of Decision

The *Eastern San Diego County Resource Management Plan and Record of Decision* (Resource Management Plan) (BLM 2008) guides the development and management of the Eastern San Diego County Planning Area, an area spanning an eastern escarpment of Southern California's Peninsular Ranges and including more than 100,000 acres of public land administered by the BLM. The Resource Management Plan also addresses conflicts among various recreational users accessing BLM lands; provides direction for future site-specific development, including renewable energy projects; and provides for plan monitoring to determine the effectiveness of BLM land management strategies. The Resource Management Plan stresses that future policy decisions and land management strategies be compatible with the multiple-use mission of BLM that entails the management of recreational use and responsible development on public lands while also maintaining environmental quality (BLM 2008).

2.1.2.2 State Regulations

California Scenic Highway System

Created by the California State Legislature in 1963, the California Scenic Highway Program includes highways designated by Caltrans as scenic.

California State Historic Routes

Old Highway 80 is a designated California State Historic Route. In 2006, the state legislature granted this designation in recognition of the highway's "outstanding natural, cultural, historic, and scenic qualities." Despite this description, the designation does not influence the development of public and private properties adjacent to Old Highway 80 (California Legislative Information 2006).

2.1.2.3 Local Regulations

County of San Diego General Plan

The County's 2011 General Plan, through elements established to address the various issues accompanying planning and development, provides guidance for the protection of visual resources. Select policies within the Land Use, Mobility, and Conservation and Open Space Elements of the General Plan address the protection of existing visual character and quality of areas and contain general direction regarding the minimization of adverse impacts to visual resources. Policies from the remaining elements of the General Plan are not considered applicable since they do not concern the protection of visual resources. The following goals and policies of the Land Use, Mobility, and Conservation and Open Space Elements concern the preservation of visual and scenic resources. Although pertinent to protection of visual quality and quality, the County's visual resource guidelines (County of San Diego 2007) do not specifically require a consistency evaluation between General Plan goals and policies and developments proposed in San Diego County. Still, the goals and policies below apply to visual resources, and therefore are included for informational purposes (County of San Diego 2011a–2011d):

Land Use Element

- **GOAL LU-2: Maintenance of the County's Rural Character.** Conservation and enhancement of the unincorporated County's varied communities, rural setting, and character.
    - **LU-2.8: Mitigation of Development Impacts.** Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.
    - **LU-2.9:** Maintaining Rural Character. Consider level of service criteria, in accordance with Policy M-2.1, to determine whether adding lanes to a Mobility Element road would adversely impact the rural character of a community or cause significant environmental impacts. In those instances, consider other options to mitigate LOS [level of service] where appropriate.
- **GOAL LU-6: Development – Environmental Balance.** A built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities.
    - **LU-6.6: Integration of Natural Features into Project Design.** Require incorporation of natural features (including mature oaks, indigenous trees, and rock formations) into proposed development and require avoidance of sensitive environmental resources.

- **LU-6.9: Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.
- **LU-10.2: Development – Environmental Resource Relationship.** Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character and avoid sensitive or intact environmental resources and hazard areas.
- **LU-11.2: Compatibility with Community Character.** Require that commercial, office, and industrial development be located, scaled, and designed to be compatible with the unique character of the community.
- **LU-12.4: Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts; for Mobility Element roads identified in Table M-4, an LOS D or better may not be achieved.
- **M-4.5: Context Sensitive Road Design.** Design and construct roads that are compatible with the local terrain and the uses, scale and pattern of the surrounding development. Provide wildlife crossings in road design and construction where it would minimize impacts in wildlife corridors.

Conservation and Open Space Element

- **GOAL COS-11: Preservation of Scenic Resources.** Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.
  - **COS-11.1: Protection of Scenic Resources.** Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.
  - **COS-11.2: Scenic Resource Connections.** Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.
  - **COS-11.3: Development Siting and Design.** Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:
    - Creative site planning;
    - Integration of natural features into the project;
    - Appropriate scale, materials, and design to complement the surrounding natural landscape;
    - Minimal disturbance of topography;
    - Clustering of development so as to preserve a balance of open space vistas, natural features, and community character; and
    - Creation of contiguous open space networks.

  - **COS-11.7: Underground Utilities.** Require new development to place utilities underground and encourage "undergrounding" in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.

- **GOAL COS-12: Preservation of Ridgelines and Hillsides.** Ridgelines and steep hillsides that are preserved for their character and scenic value.
  - **COS-12.1: Hillside and Ridgeline Development Density.** Protect undeveloped ridgelines and steep hillsides by maintaining semi-rural or rural designations on these areas.
  - **COS-12.2: Development Location on Ridges.** Require development to preserve the physical features by being located down and away from ridgelines so that structures are not silhouetted against the sky.

- **GOAL COS-13: Dark Skies.** Preserved dark skies that contribute to rural character and are necessary for the local observatories.
  - **COS-13.1: Restrict Light and Glare.** Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.
  - **COS-13.2: Palomar and Mount Laguna.** Minimize, to the maximum extent feasible, the impact of development on the dark skies surrounding Palomar and Mount Laguna observatories to maintain dark skies which are vital to these two world-class observatories by restricting exterior light sources within the impact areas of the observatories.

Mountain Empire Subregional Plan

The project site is located within the Mountain Empire Subregion of San Diego County. The *Mountain Empire Subregional Plan, San Diego County General Plan* (Mountain Empire Subregional Plan) (County of San Diego 2016) contains policies applicable to visual resources and thus applicable to the project. The following goals, policies, and recommendations established in the Mountain Empire Subregional Plan are relevant to the project:

- **Land Use Element Goal:** Provide a land use pattern consistent with the subregional population forecast.
  - **Policy and Recommendation 1:** The landforms of the Subregion are an important environmental resource that should be respected in new development. Hillside grading shall be minimized and designed to blend in with the existing natural contours.

- **Conservation - Environmental Resources Goal:** Ensure that there is careful management of environmental resources in the area in order to prevent wasteful exploitation or degradation of those resources and to maintain them for future needs.
  - **Policy and Recommendation 1:** All development shall demonstrate a diligent effort to retain as many native oak trees as possible.
  - **Policy and Recommendation 4:** The dark night sky is a significant resource for the Subregion and appropriate steps shall be taken to preserve it.
  - **Policy and Recommendation 5:** Development shall not adversely affect the habitat of sensitive plant and wildlife species or those areas of significant scenic value.

- **Scenic Highways Goal:** Establish a network of scenic highway corridors within which scenic, historical and recreational resources are protected and enhanced.

Additionally, both the General Plan Conservation and Open Space Element and Mountain Empire Subregional Plan identify five scenic corridors that pass through the Mountain Empire Subregion (County of San Diego 2011a: Figure C-5):

- Tecate Road (SR 188), from the Mexican border north to SR 94
- Potrero Valley Road, from SR 94 to Potrero County Park
- I-8, from SR 79 east to the Imperial County Line
- SR 94, through Tecate, Potrero, Boulevard, and Jacumba
- Old Highway 80 through Boulevard and Jacumba

Boulevard Subregional Plan

The project site lies within the boundaries of the Boulevard Subregional Planning Area, in the Mountain Empire Subregion (County of San Diego 2013). Policies of the *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (Boulevard Subregional Plan) (County of San Diego 2013) that concern visual resources and are relevant to the project consist of the following:

Community Character

- **Issue LU 1.1.** The ability to experience open spaces, extensive views to local and distant horizons, abundant wildlife and unfragmented habitat, grazing livestock, and a sense of stepping back in time, is essential to preserving Boulevard's rural and rustic quality of life and community character and should not degrade and detract from the stunning visual resources, clutter free horizons, and the rural quality, character, and atmosphere that attracts residents, visitors, and outdoor enthusiasts to Boulevard and the backcountry.
    - **Goal LU 1.1.** The continued maintenance of a rural lifestyle and community character exemplified by a pattern of residential and agricultural uses on large lots outside the Rural Village, along with the protection and preservation of open landscapes, unique and geographically extensive views and vistas, dark skies, steep slopes, canyons, and floodplains, while accommodating moderate, responsible, and sustainable growth at a slower rural pace.
        - **Policy LU 1.1.2.** Encourage development to protect the quality and quantity of ground and surface water resources, air quality, dark skies, visual resources, and low ambient noise levels, as well as retain and protect the existing natural and historic features characteristic of the community's landscape and natural environment.
        - **Policy LU 1.1.3.** Encourage development to respectfully incorporate existing topography and landforms, watersheds, riparian areas, oaks, and other native vegetation and wildlife, ridgelines, historic and cultural resources, views, and sustainability design factors.
        - **Policy LU 1.1.4.** Require commercial and public development along scenic and historic routes to apply designs standards that will blend the development in with the terrain and rustic southwestern nature of the community character, while keeping outdoor lighting to an absolute and well shielded minimum.
- **Issue LU 1.2.** Regional infrastructure, public facilities, and large scale energy generation and transmission projects are often proposed in rural and low-income areas. These large projects can degrade and fragment ranch lands, neighborhoods, highly valued visual resources, scenic viewsheds, ridgelines, and native habitat, including those on tribal, public, and protected lands.

  - **Goal LU 1.2.** The protection of the integrity and value of the visual, historical, cultural, and natural resources along with agricultural, ranch, and public lands. All of which make Boulevard a nice place to live, work, and play.

- **Goal LU 3.1.** Protection as a Dark Sky Community through preservation of the dark skies in Boulevard to support the continued operation of the San Diego Astronomy Association and Tierra Del Sol Observatories and to continue to attract stargazers, photographers, scientists, and researchers from around the world.
  - **Policy LU 3.1.1.** Encourage development to preserve dark skies with reduced lighting and increased shielding requirements.

Community Conservation and Protection

- **Issue LU 6.1.** Commercial, industrial development and large scale energy generation projects in the rural community of Boulevard can negatively impact community character, natural resources, and the overall quality of rural lifestyle.
  - **Goal LU 6.1.** Boulevard retains its community character by limiting any commercial or industrial development that negatively impacts our community and its resources.
    - **Policy LU 6.1.1.** Require commercial, industrial development and large scale energy generation projects to mitigate adverse impacts to the rural community character, charm, quiet ambiance and lifestyle, or the natural resources, wildlife, and dark skies of Boulevard, if feasible, in accordance with the California Environmental Quality Act.
    - **Policy LU 6.1.2.** Encourage commercial, industrial development and large scale energy generation projects to create and maintain adequate buffers between residential areas and incompatible activities that create heavy traffic, noise, infrasonic vibrations, lighting, odors, dust and unsightly views and impacts to groundwater quality and quantity.
    - **Policy LU 6.1.3.** Encourage commercial, industrial development and large scale energy generation projects to provide buffers from public roads, adjacent and surrounding properties and residences, recreational areas, and trails.

Conservation and Open Space

- **Issue COS 1.3.** Boulevard and the surrounding area is blessed with unique stunning and geographically extensive scenic views and landscapes. These visual and scenic resources are highly valued and play a major role in Boulevard's community character, quality of life, appeal to visitors and tourists, and local property values. Residents willingly sacrifice the conveniences and amenities of urban living to enjoy and benefit from the rural and scenic resources that represent the backcountry way of life and quality of life. The Historic Route designation for Route 80 requires repairs to be implemented in a manner that reflects its original concrete slabs. Historic Route 80, SR-94, and Interstate 8 are part of the County Scenic Highway System and qualify for designation as State Scenic Highways.

County of San Diego Zoning Ordinance – Section 6322 and Section 6324

Sections 6322 (Outdoor Lighting) and 6324 (Lighting Permitted in Required Yards) of the County Zoning Ordinance establish regulations to control excessive or unnecessary outdoor light emissions that produce unwanted illumination of adjacent premises within the unincorporated areas of San Diego County. In addition to the prohibition of certain lighting sources, including searchlights, lighting for advertisements

and lighting for recreational facilities (Section 6322), requirements for yard lighting are established in Section 6324.

County of San Diego Zoning Ordinance – Section 6954

Section 6954 (Solar Energy System) of the County Zoning Ordinance regulates solar energy systems. Section 6954(b)(2) specifies that a photovoltaic (PV) energy system for off-site uses with a project site greater than 10 acres is considered a Major Impact Service and Utility within all zones and requires a Major Use Permit. In addition, Section 6954(b)(3) specifically relates to visual resources and requires that the following measures be implemented to minimize the visual impacts of a project:

- **Setback.** A system or plant shall meet all of the setback requirements of the zone.
- **Height**. A system or plant of more than 200 feet in height is required to comply with Federal Aviation Administration safety height requirements.
- **Visual.** The following measures shall be followed in order to minimize the visual impact of the project:
    - Removal of existing vegetation shall be minimized.
    - Internal roads shall be graded for minimal size and disruption.
    - Any accessory buildings shall be painted or otherwise visually treated to blend with the surroundings.
    - A structure shall be non-reflective in all areas possible to blend with the surroundings.

County of San Diego Resource Protection Ordinance

Prior to approval of the project, a resource protection study must be completed, and the approving authority shall make a finding that the use or development permitted by the application is consistent with the provisions of the Resource Protection Ordinance (San Diego County Code of Regulatory Ordinances [County Code] Section 86.603).

The Resource Protection Ordinance limits development on steep slopes through density restrictions on "Steep Slope Lands" and through requirements for steep slope areas to be placed in easements. The requirements of this ordinance therefore often result in the protection of slopes in their natural state, which provides the added benefit of protecting a potential aesthetic resource. In terms of the preservation of aesthetic resources, this policy encourages the preservation of the existing natural terrain, established vegetation, and visually significant geologic displays.

The Resource Protection Ordinance is intended to protect sensitive lands and prevent their degradation and loss by requiring a slope analysis for certain discretionary projects. A function of the slope analysis is to identify Steep Slope Lands—lands that have slopes with a natural gradient of 25% or greater and a minimum rise of 50 feet. Based on the percentage of a parcel containing Steep Slope Lands, the Resource Protection Ordinance defines maximum percentage of allowable development encroachment. This encroachment may be further reduced due to environmental concerns or other design criteria.

Slope analysis indicates that no slopes within the project site are identified as Steep Slope Lands in accordance with the County Resource Protection Ordinance. The majority of the existing slopes range in steepness from 0% to 24%. Of the 581-acre project site, approximately 567 acres are less than 25%, approximately 19.3 acres are from 25% to 50%, and approximately 1.2 acres are steeper than 50%. Within the project site, no slopes steeper than 25% have a vertical rise of 50 feet or more.

County of San Diego Light Pollution Code

The Light Pollution Code (County Code Sections 51.201–51.209), also known as the Dark Sky Ordinance, was developed by the County's Department of Planning and Development Services and Department of Public Works in cooperation with lighting engineers, astronomers, and land use planners from SDG&E, Palomar and Mount Laguna Observatories, and local planning and sponsor groups to address and minimize the impact of new sources of light pollution on nighttime views. For purposes of lighting requirements, the Light Pollution Code separates the unincorporated portion of San Diego County into three geographic lighting zones: Zone A, Zone B, and Zone C. Zone A includes the areas within a 15-mile radius of both the Palomar Observatory and the Mount Laguna Observatory. Zone B includes all areas not included in Zone A or Zone C, and Zone C includes the Julian Community Planning Area and Borrego Springs Community Planning Area. As the Mount Laguna Observatory is located greater than 15 miles from the project site boundary, the project is in Zone B. Section 51.204 includes lighting standards for Zone B.

2.1.3 Analysis of Project Effects and Determination as to Significance

2.1.3.1 Methodology

Guidelines for the Determination of Significance

The County's *Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources* (County of San Diego 2007) was reviewed to determine the applicable significance thresholds for the project. According to the County guidelines for determining significance, a project would generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary:

- The project would introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.
- The project would result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings.
- The project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from:
    - a public road,
    - a trail within an adopted County or State trail system,
    - a scenic vista or highway, or
    - a recreational area.
- The project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's Zoning.

Additionally, the County's *Guidelines for Determining Significance and Report Format and Content Requirements – Dark Skies and Glare* (County of San Diego 2009) was reviewed to determine the applicable significance thresholds for the project. According to the County guidelines for determining

significance, a project would generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary:

- The project will install outdoor light fixtures that do not conform to the lamp type and shielding requirements described in Section 51.105 (Requirements for Lamp Source and Shielding) and are not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.[1]
- The project will operate Class I or Class III outdoor lighting between 11:00 p.m. and sunrise that is not otherwise exempted pursuant to Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.
- The project will generate light trespass that exceeds 0.2 foot-candles measured 5 feet onto the adjacent property.
- The project will install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color, which will create daytime glare and be visible from roadways, pedestrian walkways or areas frequently used for outdoor activities on adjacent properties.
- The project does not conform to applicable federal, state, or local statute or regulation related to dark skies or glare, including but not limited to the San Diego County Light Pollution Code.

Site Observations

Two field visits to the project site were conducted on May 4 and 5, 2022. Additional data were collected via desktop in late August 2023 to document and gain an understanding of the existing landscape character to compare with the character of the project components (e.g., solar arrays, battery energy storage system (BESS) facility, substation, and generation-tie [gen-tie] line), as well as to collect the necessary photograph documentation from each key observation point (KOP) for analysis and computer simulations. Three landscape character units were defined to provide a more focused understanding of the specific characteristics and qualities that make up the existing visual environment in the project area.

An image series of two to three horizontal photographs were taken with a digital single-lens reflex camera at each KOP for use in producing a panorama "orientation" photograph with a single-frame simulation photograph to represent 50 millimeters, the approximate field of view a human eye would see looking toward the project from each KOP. The photo points were recorded using a GPS unit and photographs were collected under typical, sunny, and generally clear viewing conditions.

Key Observation Points

The project was viewed from potential viewer group locations in the surrounding area. Representative public viewpoints were identified for further analysis based on dominance of the project site within the view, the relationship to visual resources, duration of views, and expected sensitivity of the viewer group. Of those representative viewpoints, consistent with County requirements, the key view locations that were selected best illustrate the visual effects and changes that would occur as a result of the project. Figure 2.1-2 presents the locations of each KOP within the three identified landscape character units. The seven KOP locations (KOPs 2, 3, 4, 6, 7, 8, and 9) listed in Table 2.1-1 and discussed throughout this section are intended to be consistent with the original field data numbering and are therefore not numbered consecutively.

[1] The County guidelines specifically reference the Requirements for Lamp Source and Shielding as Section 59.105; however, the County zoning ordinances have been updated since the publication of the guidelines. Requirements for Lamp Source and Shielding is now numbered as Section 51.204 of the County Light Pollution Code.

Table 2.1-1. Key Observation Point Identification

KOP Number	Description	Sensitive Viewer Group	Approximate Distance to Nearest Project Boundary (miles) / Distance Zone
2	I-8 Westbound	Travelers (Eligible State Scenic Highway)	1.2 / Midground
3	I-8 Eastbound	Travelers (Eligible State Scenic Highway)	1.6 / Midground
4	Old Highway 80 Westbound	Travelers (California State Historic Route)	0.7 / Foreground
6	Jewel Valley Road Southbound	Travelers (local)	<0.1 / Foreground
7	Jewel Valley Road Northbound	Travelers (local)	0.7 / Midground
8	SR 94 (two viewing angles)	Travelers (Eligible State Scenic Highway)	1.8 / Midground
9	Tierra del Sol Road	Travelers (local)	1.6 / Midground

Although KOPs were not specifically identified on private property, the selected key views are representative of not only public viewpoints, but also provide a basis for assessing the viewing angles and distances available to residential and recreational viewer groups in surrounding areas. The primary transportation corridors and developed areas in the region are north of the project site. Accordingly, the majority (but not all) of public viewing opportunities to the project would also occur in the areas surrounding the northern area of the project site. These locations are shown in Figure 2.1-2 and listed in Table 2.1-1 above.

Visual Simulations

Photographs from public vantage points to the project site serve as the baseline image for visual simulations of the project within the existing environment. Visual simulations were prepared to quantify potential project visibility and to assess related visual effects. The simulations were developed by superimposing a three-dimensional computer model of the project components on a digital elevation model and then placing that onto the base photographs at the correct scale and distance. Date and time-of-day inputs determine shadows and reflected light, and the software accounts for distance and haze to increase accuracy of viewing conditions. The specifications of the project layout included (1) portrait PV panels, (2) solar array panels oriented at 60 degrees, and (3) solar array strings placed in rows 15 to 25 feet apart. Project modeling also included a 10-foot-high BESS, 230-kilovolt underground gen-tie line, substation, and 6-foot-high security fence.

Visual Assessment

This analysis and subsequent determination of impacts is based primarily on a comparison of the project with the visual character and quality of its setting and surrounding vistas. Visual character is qualitatively defined by four primary components: form, line, color, and texture. Projects that create a high level of contrast with the existing visual character of a project setting are more likely to generate adverse visual impacts due to visual incompatibility. Conversely, projects that create a low level of contrast with the existing visual character are less likely to generate adverse visual impacts due to inherent visual compatibility.

KOP 2

KOP 2 represents westbound travelers along I-8, an Eligible State Scenic Highway, north of the project site (see Figures 2.1-2 and 2.1-3).[2] An average of approximately 17,000 vehicles per day pass along this section of I-8 (Caltrans 2017). Viewers along this east-west-oriented roadway would be traveling at a high rate of speed and would be looking south-southwest to view the project at a distance of approximately 1.2 miles. Portions of the project including PV panels, access roads, cleared vegetation, and other elements would be seen along an approximately 3.5-mile section of I-8, with a potential viewing duration of approximately 3 minutes, 15 seconds traveling at the posted speed limit. Travelers along a portion of this route would have slightly elevated views of the northern edge of the project, with views of the PV arrays, substation, BESS, and portions of the gen-tie line. Viewers from this KOP would have open, panoramic views of the rolling landscape dotted with rock outcroppings and shrub-sized vegetation. From this viewpoint, viewers would see the entire width of the north side of the project, east to west.

Views from KOP 2 (Figure 2.1-3) include expansive panoramas of gently undulating terrain in the foreground, with moderately sloped hills in the midground, and large mountains defining the horizon in the background. The site appears naturalistic with dense low-growing, dark green shrubs such as manzanita (*Arctostaphylos* sp.) and low-growing native trees. Development in this area consists of single-family residential housing dispersed throughout the landscape. An existing electrical substation can be seen in the foreground along with associated transmission lines.

Although development can be seen from KOP 2, the visual character maintains that of a rural community. The existing visual attributes such as built form, density, and style support this moderately high visual quality and scenic character.

KOP 3

KOP 3 represents the view of a traveler in a vehicle traveling east on I-8 northwest of the project site (see Figures 2.1-2 and 2.1-4) with the traveler looking to the south and southeast. This KOP represents travelers along an Eligible State Scenic Highway. Viewers along this roadway would be traveling at a high rate of speed and would be looking south-southeast to view the project approximately 1.6 miles from this vantage point. Portions of the project would be seen along an approximately 3.5-mile section of I-8, with a potential viewing duration of approximately 3 minutes, 15 seconds traveling at the posted speed limit. Approximately 17,000 vehicles per day pass along I-8 through the Boulevard area (Caltrans 2017).

The view from this KOP (Figure 2.1-4) is characterized by broad, panoramic views of the gently rolling landscape composing the project site with moderately sized dark green vegetation, dense in some areas and patchy in others, and taller trees surrounding residences in the foreground. Light green, shorter vegetation and dispersed tan boulders are clustered in areas as seen from this vantage point but are more dispersed in the project site.

Views from this vantage point are of expansive panoramas of gently undulating terrain in the foreground, with moderately sloped hills in the midground and large mountains in the background. The site appears naturalistic with dense low-growing, dark green shrubs such as manzanita and low-growing native trees such as juniper. Development in this area consists of single-family residential housing dispersed throughout the landscape. Commercial structures associated with the community are located near the highway and can be seen in the immediate foreground.

[2] KOP 1 was not included as the number identifications of the seven KOP locations (KOPs 2, 3, 4, 6, 7, 8, and 9) are intended to be consistent with the original field data numbering and are therefore not in direct numerical sequence.

KOP 4

KOP 4 is from Old Highway 80 westbound and represents the wide range of travelers using this important local roadway (see Figures 2.1-2 and 2.1-5). Viewers along Old Highway 80 would be traveling at low to moderate rates of speed and would be looking west to southwest toward the project site at a distance of approximately 0.7 mile. From this vantage point visual access to the project would be substantially limited due to intervening landform, vegetation, and occasional development. Portions of the project such as the substation, aboveground gen-tie line, and to a lesser extent the BESS and solar arrays would be seen intermittently along an approximately 0.4-mile section of Old Highway 80, with a potential viewing duration of approximately 30 seconds traveling at the posted speed limit. It is estimated that approximately 500 vehicles per day use Old Highway 80 through the Boulevard area (Kittelson & Associates [Kittelson] 2024).

The visual character as seen from KOP 4 (Figure 2.1-5) is that of a rural community, with visual attributes such as built form, density, and style that support its moderately high visual quality and scenic character. The combinations and patterns of natural and built elements contribute to the quality visual context. From this viewpoint the generally sparse and modestly scaled development supports the visual cohesiveness of the semi-rural character of the view. From Old Highway 80, many long-range views of the surrounding landscape are blocked or substantially limited by the proximity of existing development.

Existing utilities and other infrastructure can be readily seen from KOP 4. Development in this area includes the SDG&E Boulevard substation and associated power lines as well as scattered residential housing. Although the relatively close viewing proximity of these built elements increases their noticeability, the underlying visual character from KOP 4 and Old Highway 80 is mostly defined by the overall natural landform and vegetation and rural development land use.

KOP 6

KOP 6 is from Jewel Valley Road southbound and represents local travelers (see Figures 2.1-2 and 2.1-6).[3] Viewers along this roadway would be traveling at low rates of speed and would be looking primarily south with unobstructed views of the project as close as 60 feet from the roadway. Travelers along Jewel Valley Road are often making local trips and are typically driving at slow to moderate rates of speed. Portions of the project including close-up views of the PV panels and support structures, fencing, and access roads, as well as distant arrays would be seen intermittently along an approximately 1-mile section of Jewel Valley Road, with a potential viewing duration of approximately 1 minute, 15 seconds traveling at the posted speed limit. It is estimated that approximately 310 vehicles per day use Jewel Valley Road through the Jewel Valley area (Kittelson 2024).

The view from KOP 6 (see Figure 2.1-6) and elsewhere along Jewel Valley Road is predominantly ranchland, scattered rural residential development, and open space. The landform and landcover of this view are typical of the region, with rolling topography dotted with rock outcroppings, scattered juniper, chaparral, and native grasses and forbs. The visual character of KOP 6 is rural, supported by its land use, ranch and rural residential buildings and architecture, and sparse development. As seen from KOP 6, distant mountains define the horizon, contributing to the high visual quality and character of this viewpoint.

KOP 7

KOP 7 represents primarily local and recreational users traveling northbound along the southern segment of Jewel Valley Road (see Figures 2.1-2 and 2.1-7). Similar to KOP 6, viewers along this roadway are

[3] KOP 5 was not included as the number identifications of the seven KOP locations (KOPs 2, 3, 4, 6, 7, 8, and 9) are intended to be consistent with the original field data numbering and are therefore not in direct numerical sequence.

typically traveling at moderate rates of speed, with views oriented primarily to the north uphill toward the project, depending on direction of travel. The viewing distance from KOP 7 to the project boundary is approximately 0.7 mile. Based on the project layout, size, and undulating landform, the array system would generally not be seen in its entirety, but rather as smaller sub-units, or along the horizon. Portions of the project would be seen intermittently along an approximately 1-mile section of Jewel Valley Road, with a potential viewing duration of approximately 1 minute, 15 seconds traveling at the posted speed limit.

The view from KOP 7 (Figure 2.1-7) and Jewel Valley Road is predominantly ranchland, scattered rural residential development, and open space. The landform and landcover is typical of the region, with rolling topography dotted with rock outcroppings, scattered juniper, chaparral, and native grasses and forbs. The visual character of KOP 7 is distinctly rural, supported by its land use, ranch and rural residential buildings and architecture, and sparse development. As seen from KOP 7, distant mountains define the horizon, contributing to the high visual quality and character of this viewpoint.

KOP 8

KOP 8 is from SR 94 eastbound and represents travel route viewers from an Eligible State Scenic Highway (see Figure 2.1-2 and 2.1-8). Viewers along this roadway would be traveling at low to moderate rates of speed and would be looking primarily east as they crest the hill with panoramic views of the project site, as represented by this KOP. From this viewpoint the project would be seen at approximately 1.8 miles to the southeast. Portions of the project such as the panel arrays and removed vegetation would be seen along an approximately 0.5-mile section of SR 94, with a potential viewing duration of approximately 45 seconds traveling at the posted speed limit. Approximately 1,850 vehicles per day use SR 94 through the Boulevard/Manzanita Landscape Character Unit (Caltrans 2017).

The visual character seen from KOP 8 (Figure 2.1-8) is mostly defined by panoramic views of the varied and undulating topography and series of intermediate and distant ridgelines and mountainous backdrop. Exposed rock outcroppings provide visual interest and add to the natural character of the landscape. The visual character observed from KOP 8 is distinctly rural, supported by its land use, ranch and rural residential buildings and architecture, and sparse development. Scattered ranches, rural residential development, and open space contribute to a high visual quality. Vegetative patterns of native juniper, chaparral, and grasses are the predominant vegetative landcover seen throughout the area and are an important character-defining element. The elevated vantage point of this KOP affords scenic vistas with high compositional value, resulting in a high visual character and quality.

KOP 9

KOP 9 represents viewers traveling along Tierra del Sol Road, an important north-south corridor in the region (Figures 2.1-2 and 2.1-9). Views from this local roadway are considered high quality and representative of the region's rural and scenic character. Viewers passing by this KOP would be traveling at moderate rates of speed as they crest the hill with panoramic views of the project site. From this viewpoint the project would be seen at a distance of approximately 1.6 miles to the east. Portions of the project such as the PV arrays along the western project site would be seen intermittently along an approximately 1-mile section of Tierra del Sol Road, with a potential viewing duration of approximately 1 minute traveling at the posted speed limit. Although no traffic volume data are available for Tierra del Sol Road, its importance is identified in the Mountain Empire Subregional Plan as a local road with views that are "breathtaking in the sheer amount of territory that can be seen in virtually all directions with virtually no obstructions." From much of Tierra del Sol Road, views to the project would be blocked by intervening landform and vegetation. However, from certain areas such as KOP 9, portions of the project would be easily seen in the distance. Travelers viewing eastward from Tierra del Sol Road would see the arrays to the east, where the intervening foreground landforms drop in elevation and the arrays come into the midground view.

KOP 9 shows the visual character and quality of the landscape from a somewhat elevated public vantage point (Figure 2.1-9). These more expansive views result in a high visual quality which includes scenic vistas of the Laguna Mountains to the north. Similar to KOP 8, the character and visual quality of this KOP are typical of the region. The visual character observed from KOP 9 is distinctly rural, supported by its land use, ranch and rural residential buildings and architecture, and sparse development, which contribute to a high visual quality. Vegetative patterns of native juniper, chaparral, and grasses are the predominant vegetative landcover seen throughout the area and are an important character-defining element. The elevated vantage point of this KOP affords scenic vistas with high compositional value, resulting in a high visual character and quality.

Contrast Analysis

The visual contrast analysis is a qualitative discussion of anticipated contrast between the existing landscape character and the proposed activities and/or facilities. Factors taken into consideration for such an analysis include distance of the project elements from the viewer and the level of perceived contrast between the project elements and the existing landscape. These factors are further defined below. The contrast analysis rating sheets are shown in Appendix C.

The following distance zones were used for evaluating impacts to scenery from each KOP:

- Foreground: up to 0.5 mile
- Midground: 0.5 to 3 miles
- Background: 3 to 5 miles

The level of perceived contrast between the project elements and the existing landscape from each KOP was classified using the following terms:

- None: The element contrast is not visible or perceived.
- Weak: The element contrast can be seen but does not attract attention.
- Moderate: The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- Strong: The element contrast demands attention, would not be overlooked, and is dominant in the landscape.

Glare Analysis

To determine the potential for significant glint or glare from solar panels and other built project components that may affect residents and motorists traveling on I-8, SR 94, Old Highway 80, Tierra del Sol Road, and Jewel Valley Road, SWCA used the Sandia National Laboratories' online Solar Glare Hazard Analysis Tools by ForgeSolar (see Appendix C). The glare tool and associated report illustrate via Google Earth imagery where the project is located relative to sensitive viewing locations such as airports, KOPs, roads/highways, and other transportation routes. The glare analysis methodology is consistent with County dark sky guidelines and ordinances. Using simple parameters provided by the Applicant, the glare analysis provides a quantitative assessment of when and where glare from the project components would occur throughout the year and shows potential effects on the human eye at locations where glare occurs. The glare analysis also assesses the project's energy production so that the Applicant can compare alternative designs to maximize energy production while mitigating the impacts of glare. Additional information regarding the orientation and tilt of the PV panels, reflectance of project components, local environmental conditions, and ocular factors (e.g., flash blindness) are considered in the analysis (ForgeSolar 2020). The PV panels used in this analysis are fixed-frame racks with a tilt of 30 degrees resting angle and 60-degree maximum

tracking and a maximum height of 12 feet above the ground, facing south. Existing vegetation and structures are considered when analyzing the results of the glare analysis.

Analysis for the project used the GlareGauge (also known as Solar Glare Hazard Analysis Tool [SGHAT]) model developed by ForgeSolar and the U.S. Department of Energy's Sandia National Laboratories to evaluate potential glare (see Appendix C). The analysis focused on potential glare effects on observation points and linear travel routes. Aircraft landing and approach were considered. The proposed project site is approximately 6.5 miles west of the County-owned and publicly used Jacumba Airport. Although the project is not located on airport property and therefore not subject to Federal Aviation Administration (FAA) jurisdiction under 14 Code of Federal Regulations 77 to protect airspace safety and is located beyond the 2-mile final approach as defined in the Interim Solar Policy, the Applicant has sought to voluntarily apply FAA ocular hazard standards (*Federal Register* 78:63276). The glare analysis results comply with the FAA standards described in the Interim Solar Policy.

Military operating areas occur throughout eastern San Diego County. Review of the solar glare analysis and the project site lighting description indicates that proposed lighting, implemented in compliance with the County lighting ordinance and policies, would not result in substantial light to military operating area day-to-day operations. The minimal glare modeled from the sensitive receptors does not create hazards such as flash blindness or continuous glare, nor adversely affect daytime or nighttime views in the area.

2.1.3.2 Visual Character and Quality

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Visual Resources* (County of San Diego 2007) was used to establish significance thresholds. As stated in the County guidelines, a significant impact would result if:

- The project would introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.

Analysis

Construction

The project would be constructed in two separate phases. Construction of Phase I would occur over approximately 12 months, and Phase II would occur over approximately 18 months. It is anticipated there would be approximately a 1-year gap between construction of Phase I and Phase II. During the construction period, earthmoving activities and construction materials, heavy and light equipment, trucks, and parked vehicles would be visible on the project site. Throughout construction, numerous activities would take place on-site, including large-scale vegetation removal, earthwork, and installation of all project elements. These construction activities would result in a high degree of visual contrast. Because of the relatively close time frame between construction phases, it is expected that the casual observer and the surrounding community could perceive project construction as occurring in a single, overlapping phase.

Although the visual contrast and effect on character during the construction phase would be significant, the overall adverse effect on visual character would be moderate due to the temporary nature of the construction activities.

Operation

As described below, visual simulations of the project are included for the postconstruction (operational) period in Figures 2.1-3 through 2.1-9. Due to its large expanse, extensive layout, and varied landform, portions of the project would be seen over a wide area in the region and would have a potential effect on several scenic vistas throughout the region. Important public views that would be affected include sections of I-8, SR 94, Jewel Valley Road, and Tierra del Sol Road.

Intervening topography and the somewhat random visual pattern elements of vegetation, rock, and scattered development on the site and surroundings would reduce project noticeability to some degree. Depending on the viewpoint, the project would have weak to moderate visual contrast to the surrounding natural colors. Despite some rock outcroppings remaining in place along the project ridgeline, the arrays would attract attention and would have strong visual contrast with the terrain.

Although intervening topography, vegetation, and distance would somewhat reduce visibility of the project from certain mid- and long-range public views, the project would result in a noticeable contrast with the high visual quality of the natural and rural setting where visible. The dark panels would appear somewhat similar in shade to the existing vegetation. As seen from closer viewpoints, the project would be readily visible and substantially alter the visual quality due to the differences in line, form, color, and texture compared to surrounding setting. The project would remove substantial amounts of mature native vegetation. Large swaths of PV arrays and other supporting project elements constructed throughout the project site would introduce a new, visually contrasting use into the viewshed as seen from many surrounding public viewpoints.

Although the undulating topography of the region blocks views of the project from certain viewpoints, the topography also elevates the project site and can result in greater visual exposure to the surrounding area. As seen from many of the surrounding viewpoints, portions of the project would be seen on either a primary or secondary ridgeline, extending above the horizon line. This alteration of the surrounding ridgelines and visual backdrop would adversely affect the existing scenic vistas throughout the area. As seen from certain closer public viewpoints surrounding the project, such as Jewel Valley Road, the project would dominate the foreground views and would distract from the larger scenic context of the viewshed.

The project proposes to reseed all disturbed areas with a native plant hydroseed mix as soon as possible after disturbance. In addition, at least 70% vegetation cover is proposed to be maintained during project operation on the portions of the solar facility development footprint within the perimeter fencing not overlain by vehicle access driveways and internal access, inverter/transformer platforms, battery storage containers, and the on-site substation. Due to the uncertainty of revegetation success, combined with the required fuel modification zones and permanently disturbed areas, the proposed revegetation seeding would provide only partial visual benefit of reducing the visual contrast of light-colored exposed soils in comparison with the surrounding, dark green vegetation and mitigation of loss of visual character to the project site and the surroundings. As a result of these factors, the project would have a substantial effect on the existing scenic vistas and visual quality.

KOP 2

The viewing distance from KOP 2 to the project would be approximately 1.2 miles.[4] This KOP represents westbound travelers along I-8 north of the project site (see Figures 2.1-2 and 2.1-3). Travelers looking south along this route would have slightly elevated views of the northern portions of the project with views of the substation, BESS, and portions of the aboveground gen-tie line. Viewers from this KOP would have open,

[4] KOP 1 was not included as the number identifications of the seven KOP locations (KOPs 2, 3, 4, 6, 7, 8, and 9) are intended to be consistent with the original field data numbering and are therefore not in direct numerical sequence.

panoramic views of the rolling landscape dotted with rock outcroppings and shrub-sized vegetation. With the introduction of new forms and lines not found in the existing landscape, the scale of the project would potentially detract from and/or contrast with the existing visual character.

KOP 3

The viewing distance from KOP 3 to the project would be approximately 1.6 miles. This KOP represents the view from a vehicle traveling east on I-8 northwest of the project site (see Figures 2.1-2 and 2.1-4) with the traveler looking to the south and southeast. Due to the somewhat elevated viewer perspective, the project would be easily visible from this KOP resulting from the contrasting angular, geometric patterns of the arrays with the generally organic edges and forms of the surrounding vegetation and landform. Intervening topography and the generally random visual patterns of vegetation, rock, and scattered development on the site and the surrounding areas would reduce project noticeability to some extent. Vegetation removal would be noticeable and would increase the perception of the project's visual character. The large swaths of PV panels would generally follow the existing topography; however, they would also be seen extending above a mid-distance ridgeline to the southeast, resulting in a reduction in the quality of the scenic vista and an alteration of existing rural character.

Although the majority of the proposed gen-tie line would be underground, an approximately 50-foot section near the connection to the substation would be visible, and although similar in form, line, color, and texture to the existing transmission lines in the area, would add to the project's overall visual contrast with the surrounding natural landscape. The visible contrast with the natural surroundings would also increase the developed visual character of the area.

KOP 4

The viewing distance from KOP 4 to the project would be approximately 0.7 mile from Old Highway 80 (see Figures 2.1-2 and 2.1-5). Viewers from KOP 4 would have foreground, level views of the substation and portions of the aboveground gen-tie line, but views of the solar panel arrays would be partially or entirely screened due to intervening topography and vegetation. Similarly, the BESS would be somewhat obscured by topography and would have limited views for travelers along Old Highway 80. Due to this limited visibility, many casual observers would be generally unaware of the changes implemented by the project. Accordingly, as seen from KOP 4 the project would result in only a minor reduction in the existing visual quality.

KOP 6

KOP 6 is from Jewel Valley Road southbound and represents local travelers (see Figures 2.1-2 and 2.1-6).[5] Viewers along this roadway would be traveling at low rates of speed and would be looking primarily south with unobstructed views of the project as close as 60 feet from the roadway. Views from this vantage point are panoramas of a rural and natural landscape. The introduction of solar panels would screen or partially screen panoramic views from this vantage point along an approximately 0.5-mile segment of this roadway. The solar arrays would introduce new form, line, color, and texture to the site. The geometric and angular forms of the arrays, support structures, fencing, and roads would be noticeable compared to the otherwise mostly natural and rural surrounding landscape. Views would have contrast due to the proximity to the panels. From some locations the proximity and heights of the panels would partially block views of the surrounding mountains. These changes would alter the visual quality and character from rural to semi-industrial by adding development to the viewshed.

[5] KOP 5 was not included as the number identifications of the seven KOP locations (KOPs 2, 3, 4, 6, 7, 8, and 9) are intended to be consistent with the original field data numbering and are therefore not in direct numerical sequence.

As seen from KOP 6 and much of Jewel Valley Road, proximity to the roadway and viewing orientation would result in direct, close-range views of the project. Proposed removal of substantial amounts of mature native vegetation would also be noticeable from this KOP. From these viewpoints, the project would be readily visible and substantially redefine the visual character of the site and the project vicinity from rural to semi-industrial. The project would result in a noticeable contrast with the visual character and quality of the natural and rural setting due to the introduction of angular, repetitive elements and forms. In addition, from segments of Jewel Valley Road, the viewing proximity and heights of the adjacent panel arrays would block views of the distant hillsides. As a result of these factors, the project would result in a substantial adverse effect on the existing visual quality and character of the site and surroundings as seen from this KOP.

KOP 7

The viewing distance from KOP 7 to the project boundary is approximately 0.7 mile (see Figures 2.1-2 and 2.1-7). From KOP 7 the solar arrays primarily along the eastern portion of the project would be seen on a hillside approximately 0.5 mile to the north. The dark panels would appear somewhat similar in shade to the existing dark green vegetation and would have weak to moderate contrast relative for color. The form and line of the arrays would vary from those seen in the surrounding area and contrast with the natural landscape, due to the repetitive lines and geometric forms of the arrays. Although existing rock outcroppings would remain in place along the ridgeline, the arrays would attract attention. The scale of the project as seen from this vantage point covers a large area. Although broken up by small segments of open vegetation, the project would be noticeable and have moderately strong visual contrast with the surrounding landscape context. The arrays of PV panels would generally follow the existing topography. The repetitive angled edges and geometric forms of the panels and the arrays would be seen silhouetting above the primary ridgeline to the north, resulting in a reduction in existing rural character and quality.

The view from KOP 7 is characterized by high-quality views of the gently rolling landscape covered with rock outcroppings, dark green native vegetation, with taller trees scattered throughout. Although ranches and residences can be seen in the area, those built features are visually subordinate to the underlying scenic quality defined by the topography, native vegetative patterns, and rock outcroppings.

Although intervening topography and roadside vegetation would reduce project noticeability to some degree, the prominent location of the solar arrays on the ridgeline would allow the project to be readily seen from this KOP and the surrounding area. The solar arrays would generally follow the existing topography; however, they would noticeability extend above a mid-distance ridgeline valued in County policy would result in a reduction in the quality of the scenic vista and an alteration of existing rural character due to the repetitive elements of the angled arrays. In addition, vegetation removal would be apparent and would change the perception of the project site's visual character.

KOP 8

KOP 8 is from SR 94 eastbound and represents travel route viewers from an Eligible State Scenic Highway (see Figures 2.1-2 and 2.1-8). From this viewpoint the project would be seen at a distance of approximately 1.8 miles to the southeast. The dark panels would appear somewhat similar in shade to the existing dark green vegetation seen in the surrounding landscape. Despite the color similarity, the massing of geometric forms and repetitive lines of the solar array fields would contrast with the natural patterns of the viewshed. As seen from KOP 8, the project would follow the existing topography; however, the solar array fields would be seen occupying an intermediate ridgeline to the southeast, resulting in a reduction in existing rural character and quality due to the angular, and repetitive geometric forms in contrast to the surrounding soft, natural vegetative forms. Although the viewing distance from KOP 8 and along SR 94 would somewhat

reduce project noticeability, the distance would also make the scale of the project more apparent, increasing the perception of the visual character change from rural and open space to a utility infrastructure use.

Viewers would notice changes such as the contrast between the linear form of the arrays and the natural landscape, as well as the large scale of the project. Other project elements, such as the aboveground portion of the gen-tie line or BESS facility would not be seen from this vantage point. Large fields of solar arrays constructed throughout the project site would introduce a new, visually contrasting use into the rural viewshed as seen from KOP 8. As a result of these factors, the project would result in a moderately adverse effect on the existing visual quality and character of the site and surroundings.

KOP 9

KOP 9 represents viewers traveling along Tierra del Sol Road, a local north-south corridor in the region (see Figure 2.1-2 and 2.1-9). From this viewpoint the project would be seen at a distance of approximately 1.6 miles to the east.

This view from KOP 9 is considered high quality and representative of the region's valued rural and scenic character. From much of Tierra del Sol Road, views to the project would be blocked by intervening landform and vegetation. However, from certain areas, such as the vicinity of the California Department of Forestry and Fire Protection (CAL FIRE) White Star Fire Station, portions of the project could be seen in the distance. Travelers viewing eastward from Tierra del Sol Road may see the arrays to the east, where the intervening foreground landforms drop in elevation and the arrays come into the midground view, appearing as modular, darker, and contrasting forms on the hillsides. The views of the project from Tierra del Sol Road diminish from visible to partially obscured and not visible the farther south a traveler is from the project.

The visibility of the solar arrays would introduce a new, visually contrasting use into the viewshed as seen from KOP 9. As a result of these factors, the project would result in a moderately adverse effect on the existing visual quality and rural character of the site and surroundings.

Conclusion for Visual Character and Quality

The proposed project would introduce a solar facility into an otherwise mostly rural and natural setting. Due to the extensive layout, viewshed angles, topography, and size, the project would be visible throughout a portion of the surrounding region. Recent renewable energy projects have resulted in a change to the physical setting that includes major infrastructure elements, such as wind turbines, transmission towers, and other related components. Past renewable energy projects within a five-mile radius that have already been constructed include the 500 kV Sunrise Powerlink, the Tule Wind Phase I project, the Kumeyaay Wind project, and the SDG&E Battery Microgrid project. Renewable energy projects within the same area that are approved but not yet constructed include the Campo Wind project and the Rugged Solar project.

Although other renewable energy projects, utility infrastructure (e.g., Boulevard substation), and transmission lines exist in the region, public views of the project site would include project features that in places would potentially detract from and/or contrast with the existing rural and open space land-use density, architecture, vegetative patterns, and natural forms that currently define the landscape quality and character within the site and surroundings. The proposed removal of native vegetation would be noticeable with the natural landscape patterns. Although the surrounding topography and viewing distance would limit visibility from some viewpoints, the scale and overall visual exposure of the project would be evident from certain public viewpoints and would alter the scenic quality of the landscape. Due to high winds and arid conditions of the area, it would be infeasible to install and maintain landscaping at a large enough scale to screen the project from nearby views. The visual contrast and effect on character during the construction phase would be significant, however the overall adverse effect on visual character would be limited due to

the temporary nature of the construction activities. The visual contrast and effect on character during the operation of the project would be significant. Although impacts to private views are not considered significant under the California Environmental Quality Act (CEQA) and mitigations for private views are not required, the project will include project design feature **PDF-AE-1,** which would help screen views of the project from nearby private residences. Although existing renewable energy projects in the area have already impacted the visual quality of the landscape, this project would further detract from the existing visual quality and significantly contrast with the predominantly rural and natural character of the surrounding community, resulting in a **significant** impact (**Impact AE-1**)

2.1.3.3 Valued Visual Character and Image of Neighborhood or Community

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Visual Resources* (County of San Diego 2007) was used to establish significance thresholds. As stated in the County guidelines, a significant impact would result if:

- The project would result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localize area, including but not limited to landmarks (designated), trees, and rock outcroppings.

Analysis

The existing visual character of the project site and the surrounding area is a product of both natural and built elements, including uses such as rural and agriculture uses, residential, commercial, renewable energy, public infrastructure, and open space. The project site is spread over a large and somewhat varied area; however, its rolling topography and hillsides and patterns of native vegetation and contribute to a moderately high to high existing visual quality. However, due to the inclusion of existing, approved and proposed energy facilities, the Boulevard Subregional Plan Area has and continues to experience changes in its neighborhood character. The area that originally was predominantly rural in nature with large homesteads is becoming increasingly developed with private facilities, civic uses and energy infrastructure and facilities. The subregional plan area supports a range of development including large lot rural residential structures, private use equestrian facilities, small-scale rural commercial businesses, undeveloped open space, communication facilities and electrical infrastructure, and existing and approved wind energy facilities.

The project would remove substantial amounts of mature native vegetation. The PV arrays and other supporting project elements constructed throughout the project site would introduce a new, visually detracting use onto the project site as seen from certain surrounding public viewpoints. The project would interrupt primary and secondary ridgelines as seen from important travel corridors.

Although visibility of the project would be somewhat blocked from certain mid- and long-range public views, the project would result in a noticeable contrast with the visual character and quality of the natural and rural setting where visible. As seen from closer viewpoints, the project would be visible and would alter the visual character of the site and vicinity, contributing to ongoing changes initiated by existing renewable energy infrastructure in the area. Such changes are typical when transitioning open space and rural land to utility developments of this nature. As a result of these factors, the project would result in an adverse change to aesthetic features that contribute to the valued visual character and image of the community and surrounding area. While the project will comply with the County's Resource Protection

Ordinance (RPO) and the County's General Plan (County of San Diego 2011b), the project would result in a **significant** impact (**Impact AE-2**).

2.1.3.4 Focal and Panoramic Vistas

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Visual Resources* (County of San Diego 2007) was utilized to establish significance thresholds. As stated in the County guidelines, a significant scenic vista impact would occur if:

- The project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from:
    - a public road,
    - a trail within an adopted County or State trail system
    - a scenic vista or highway, or
    - a recreational area.

Analysis

Public Roads

Due to the somewhat elevated viewer perspective, construction and operation of the project would be easily visible from KOPs 2 and 3, resulting from the contrasting angular, geometric patterns of the arrays with the generally organic edges and forms of the surrounding vegetation and landform. Intervening topography and the generally random visual patterns of vegetation, rock, and scattered development on the site and the surrounding areas would reduce project noticeability to some extent. Vegetation removal would be noticeable and would increase the perception of the project's visual character. Although the majority of the proposed gen-tie line would be underground, the approximately 50-foot section crossing Tule Jim Lane near the connection to the substation would be visible, and although similar in form, line, color, and texture to the existing transmission lines in the area, would add to the project's overall visual contrast with the surrounding natural landscape. The visible contrast with the natural surroundings would also increase the developed visual character of the area. The large swaths of PV panels would generally follow the existing topography; however, they would also be seen extending above a mid-distance ridgeline to the southeast, resulting in a reduction in the quality of the scenic vista and an alteration of existing rural character.

Viewers from KOP 4 would have foreground, level views of the substation and portions of the aboveground gen-tie, but views of the solar panel arrays would be partially or entirely screened due to intervening topography and existing vegetation (Figure 2.1-5). Similarly, the BESS would be somewhat obscured by topography and would have limited views for travelers along Old Highway 80. Due to this limited visibility, many casual observers would be generally unaware of the changes implemented by the project. Accordingly, as seen from KOP 4 the project would result in only a minor reduction in the existing visual quality.

KOP 8 represents travel route viewers along SR 94, an Eligible State Scenic Highway section of the highway with slightly raised views of the northernmost portion of the project site. Views from KOP 8 are characterized by broad, panoramic, high-quality views of the valley in which the project is sited (see Appendix C, Figure 9). Viewers would notice changes such as the contrast between the linear form of the arrays and the natural landscape, as well as the large scale of the project. Other project elements, such as the aboveground portion of the gen-tie line or BESS facility would not be seen from this vantage point. Large fields of solar arrays constructed throughout the project site would introduce a new, visually

contrasting use into the rural viewshed as seen from KOP 8. As a result of these factors, the project would result in a moderately adverse effect on the existing visual quality and character of the site and surroundings.

Views from KOP 9 are characterized by broad, panoramic, high-quality views of the valley in which the project is sited. Viewers could notice changes such as the contrast between the linear form of the arrays and the natural landscape, as well as the large scale of the project. Other project elements, such as the aboveground portion of the gen-tie line or BESS facility would not be seen from this vantage point. The views from KOP 9 are considered high quality and representative of the region's valued rural and scenic character. From much of Tierra del Sol Road, views to the project would be blocked by intervening landform and vegetation. However, from certain areas, such as the vicinity of the CAL FIRE White Star Fire Station, portions of the project would be easily seen in the distance. Travelers viewing eastward from Tierra del Sol Road may see the arrays to the east, where the intervening foreground landforms drop in elevation and the arrays come into the midground view, appearing as modular, darker, and contrasting forms on the hillsides. The views of the project from Tierra del Sol Road diminish from visible to partially obscured and not visible the farther south a traveler is from the project. The visibility of large swaths of solar arrays would introduce a new, visually contrasting use into the viewshed as seen from KOP 9. As a result of these factors, the project would result in a moderately adverse effect on the existing visual quality and rural character of the site and surroundings.

County or State Trail System

Although transportation corridors through the Boulevard area provide access to many recreational areas in eastern San Diego County, no official public parks or recreational trails are located within the immediate vicinity of the project site. McCain Valley Recreation Area is located approximately 3 miles north of the project site and provides little to no visibility of the project site.

Scenic Vistas or Highways

Scenic vistas are generally defined as high-quality views displaying good aesthetic and compositional value that can be seen from public viewpoints. If the project substantially degrades the scenic landscape as viewed from public roads or from other public or recreation areas, this would be considered a significant impact to the scenic vista. The degree of potential impact on scenic vistas also varies with factors such as viewing distance, duration, viewer sensitivity, and the visual context.

Scenic vistas in the region that are either identified in County planning policy or otherwise meet the quality definition of a scenic vista typically include views of the rolling topography, patterns of native vegetation, surrounding mountains and ridgelines, rock outcroppings, and rural and open space land uses. Because of its large expanse, extensive layout, and varied landform, portions of the project would be seen over a wide area in the region and would have a potential effect on a number of scenic vistas throughout the area. Important public views that would be affected would include sections of I-8 and SR 94 (both Eligible State Scenic Highways), Jewel Valley Road, Tierra del Sol Road, and other local roadways.

Although the undulating topography of the region blocks views of the project from certain viewpoints, the topography also elevates the project site and can result in greater visual exposure to the surrounding area. As seen from many of the surrounding viewpoints, portions of the project would be seen on either a primary or secondary ridgeline, extending above the horizon line. This alteration of the surrounding ridgelines and visual backdrop would adversely affect the existing scenic vistas throughout the area. As seen from closer public viewpoints surrounding the project, such as Jewel Valley Road, the project would dominate the foreground views and would distract from the larger scenic context of the viewshed.

Recreation Areas

As mentioned previously, transportation corridors through the Boulevard area provide access to many recreational areas in eastern San Diego County. However, no official public parks, recreational areas, or trails are located within the immediate vicinity of the project site. The Jewel Valley Road Pathway is planned as part of the County's Community Trails Master Plan; however, it would not be included in the proposed project. If completed, the pathway would be constructed along the section of Jewel Valley Road that intersects the project site, and close-range, unobscured views of the project would be visible along a portion of the pathway.

McCain Valley Recreation Area is located approximately 3 miles north of the project site and provides little to no visibility of the project site.

Conclusion for Focal and Panoramic Views

The visible contrast with the natural surroundings would increase the developed visual character of the area. The PV panels would generally follow the existing topography; however, they would also be seen extending above a mid-distance ridgeline to the southeast, resulting in a reduction in the quality of the scenic vista and an alteration of existing rural character. As seen from closer public viewpoints surrounding the project, such as Jewel Valley Road, the project would dominate the foreground views and would distract from the larger scenic context of the viewshed. Therefore, construction and operation of the project would obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, scenic vista or highway. As such, the project would have a substantial effect on the existing scenic vistas, resulting in a **significant** impact (**Impact AE-3**).

2.1.3.5 Plan Compliance

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Visual Resources* (County of San Diego 2007) was used to establish significance thresholds. According to the guidelines, a significant impact would result if:

- The project would not comply with applicable goals, policies, or requirements of an applicable County community plan, subregional plan, or historic district zoning.

Analysis

The project site lies within the Boulevard Subregional Planning Area, in the Mountain Empire Subregion. The project site is not located within a historic district. Table 2.1-2 presents an analysis of the project's consistency with applicable visual policies and requirements of the Mountain Empire Subregional Plan and Boulevard Subregional Plan.

Although implementation of the project was determined to result in significant and unmitigable impacts to focal or panoramic vistas from several locations including I-8 and Old Highway 80, the project would comply with applicable visual and aesthetic goals as listed in the Boulevard Subregional Plan.

The project would comply with the County's Light Pollution Code during construction, operation, and decommissioning. During construction and decommissioning, the project would be compliant with the lamp type and shielding requirements as established by the County Light Pollution Code and would be fully shielded and directed downward to minimize opportunities for unnecessary sky glow and light trespass. During operation, all lighting for the solar facility would be shielded, directed downward, and would

comply with the County's Light Pollution Code, also known as the Dark Sky Ordinance, Section 59.101 et seq. In addition, the project would comply with the County Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare, and control excessive or unnecessary outdoor light emissions.

Although implementation of the project was determined to result in significant and unmitigable impacts to focal or panoramic vistas from several locations including I-8 and Old Highway 80, the project would not conflict with this policy. Neither the project site nor the surrounding area has been designated by local, state or federal agencies or organizations as containing or being of "significant" scenic value. Still, the areas identified for solar development encompass flatter terrain and unique or particularly vivid terrain including ridgelines and slopes would not be substantially disturbed by the project development.

Due to the inclusion of existing energy infrastructure in the I-8, SR 94, and Old Highway 80 viewsheds and because the project does not inhibit the County from establishing regulations and/or development standards geared toward the protection and enhancement of scenic highways, the project would not be inconsistent with the Scenic Highways Goal of the Mountain Empire Subregional Plan.

Hillside grading would be minimized and designed to conform to the existing contours to the extent feasible. Buffers would be incorporated into the project design to minimize visual incompatibility with nearby residential areas, roads, and recreational areas

Implementation of the project would be consistent with the local visual policies and goals presented in Table 2.1-2, resulting in a **less than significant** impact.

Table 2.1-2. Policy Consistency Evaluation

Goals, Policies, and Requirements	Consistency Determination
Mountain Empire Subregional Plan, San Diego County General Plan (County of San Diego 2016)	
Land Use	
Policy and Recommendation 1: The landforms of the Subregion are an important environmental resource that should be respected in new development. Hillside grading shall be minimized and designed to blend in with the existing natural contours.	**Consistent.** The project (i.e., all components of the solar facility) would be consistent with this policy. The general topography within the project site consists of flat land and rolling hills. Grading would be necessary for the construction of access and service roads and the installation of solar arrays; trenching for the underground electrical direct current (DC) and alternating current (AC) collection system, including the telecommunication lines; and construction of the project substation. Hillside grading would be minimized and designed to conform to the existing contours to the extent feasible.

Goals, Policies, and Requirements	Consistency Determination
Conservation	
Policy and Recommendation 1: All development shall demonstrate a diligent effort to retain as many native oak trees as possible.	**Consistent.** According to the oak tree inventory included in the biological resources technical report (Appendix D.1, Biological Resources Report), 200 oak trees were identified within 100 feet of the project site. However, only 38 oak trees would be removed as a result of the project. Additionally, an off-site biological open space easement would be granted over 448 acres of sensitive vegetation communities, special-status plant species, and habitat for special-status species to protect sensitive biological resources. This easement is for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The biological open space easement would be unfenced. As such, implementation of the biological open space easement proposed by the project would increase tree preservation in San Diego County.
Policy and Recommendation 4. The dark night sky is a significant resource for the Subregion and appropriate steps shall be taken to preserve it.	**Consistent.** The solar facility would be consistent with this policy and. would comply with the County's Light Pollution Code (also known as the Dark Sky Ordinance, Section 59.101 et seq.) during construction and operations. More specifically, during construction, portable night lighting used during construction would be fully compliant with the lamp type and shielding requirements for Class II lighting as established by Section 51.204 of the County Light Pollution Code and would be fully shielded and directed downward to minimize opportunities for unnecessary sky glow and light trespass. During operations, all lighting for the solar facility would be shielded, directed downward, and would comply with the County Light Pollution Code. Lastly, the proposed project would comply with the County Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare and control excessive or unnecessary outdoor light emissions.
Policy and Recommendation 5. Development shall not adversely affect the habitat of sensitive plant and wildlife species or those areas of significant scenic value.	**Consistent.** As discussed in Section 2.2, Biological Resources, of the EIR, the solar facility would result in impacts to sensitive plant and wildlife species. However, through mitigation, potentially significant impacts would be reduced to less than significant. Although implementation of the project was determined to result in significant and unmitigable impacts to focal or panoramic vistas from several locations including I-8 and Old Highway 80, the project would not conflict with this policy. Neither the project site nor the surrounding area has been designated by local, state or federal agencies or organizations as containing or being of "significant" scenic value. Still, the areas identified for solar development encompass flatter terrain and unique or particularly vivid terrain including ridgelines and slopes would not be disturbed by the project development.

Goals, Policies, and Requirements	Consistency Determination
Scenic Highways	
Establish a network of scenic highway corridors within which scenic, historical and recreational resources are protected and enhanced.	**Consistent.** Within the Mountain Empire Subregion, I-8 from SR 79 east to the Imperial County Line and Old Highway 80, from the Central Mountain Subregion to I-8 are designated scenic corridors. The solar facility would be visible from portions of I-8, SR 94, and Old Highway 80. Despite their inclusion in the County's scenic highway system, there are no current local regulations governing development of lands along I-8 or Old Highway 80. For example, existing energy infrastructure including the Boulevard substation, wind turbines, transmission lines, and the East County substation 138-kilovolt (kV) line are currently visible from I-8, SR 94, and Old Highway 80. Near the project site, I-8, SR 94, and Old Highway 80 were identified as providing opportunities for long and/or broad scenic views. Implementation and operation of the project would not prevent the County from continuing to establish and designate scenic highways and would not inhibit the County from establishing regulations and/or development standards geared toward the protection and enhancement of scenic highways. Due to the inclusion of existing energy infrastructure in the I-8, SR 94, and Old Highway 80 viewsheds and because the project does not inhibit the County from establishing regulations and/or development standards geared toward the protection and enhancement of scenic highways, the project would not be inconsistent with the Scenic Highways goal of the Mountain Empire Subregional Plan.
Boulevard Subregional Planning Area, Mountain Empire Subregional Plan (County of San Diego 2013)	
Community Character	
Policy LU 1.1.2 Encourage development to protect the quality and quantity of ground and surface water resources, air quality, dark skies, visual resources, and low ambient noise levels, as well as retain and protect the existing natural and historic features characteristic of the community's landscape and natural environment.	**Consistent.** The project has been designed to minimize impacts to existing topography, landforms, and views to the extent practicable. Potential impacts associated with quality and quantity of groundwater and surface water, air quality, dark skies, visual resources, and noise have all been analyzed and disclosed within this EIR. Project design features have been provided to mitigate potential impacts to the extent feasible.
Policy LU 1.1.3 Encourage development to respectfully incorporate existing topography and landforms, watersheds, riparian areas, oaks, and other native vegetation and wildlife, ridgelines, historic and cultural resources, views, and sustainability design factors.	**Consistent.** The project facilities have been designed to minimize impacts to existing topography, landforms, riparian areas, oaks, native vegetation and wildlife, ridgelines, cultural resources, and views to the extent practicable.
Policy LU 1.1.4 Require commercial and public development along scenic and historic routes to apply designs standards that will blend the development in with the terrain and rustic southwestern nature of the community character, while keeping outdoor lighting to an absolute and well shielded minimum.	**Consistent.** The project is not considered a commercial or public development as defined by the County Zoning Ordinance.
Policy LU 3.1.1. Encourage development to preserve dark skies with reduced lighting and increased shielding requirements.	**Consistent.** The project would comply with the County Light Pollution Code, also known as the Dark Sky Ordinance, Section 51.201 et seq. Additionally, lighting for the project would be designed in accordance with the County Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare, and controls excessive or unnecessary outdoor light emissions. Lighting for the project would use shielded bulbs, with motion detection, and a maximum of 100 watts.

Goals, Policies, and Requirements	Consistency Determination
Community Conservation and Protection	
Policy LU 6.1.1 Require commercial, industrial development and large-scale energy generation projects to mitigate adverse impacts to the rural community character, charm, quiet ambiance and lifestyle, or the natural resources, wildlife, and dark skies of Boulevard, if feasible, in accordance with the California Environmental Quality Act.	**Consistent.** Impacts associated with the project have been evaluated and mitigated to the extent feasible in accordance with CEQA. While the project vicinity has been historically of rural character, there has been a recent increase in renewable energy development in the region. All outdoor lighting would be hooded, directed downward, turned off when not required, and kept to a minimum for safety purposes. All lighting installed on the project site would be fully compliant with the lamp type and shielding requirements of the County Light Pollution Code.
Policy LU 6.1.2 Encourage commercial, industrial development and large-scale energy generation projects to create and maintain adequate buffers between residential areas and incompatible activities that create heavy traffic, noise, infrasonic vibrations, lighting, odors, dust and unsightly views and impacts to groundwater quality and quantity.	**Consistent.** The project would comply with the setback regulations as indicated in the County Zoning Ordinance, Section 4800 (Setback Regulations). Buffers from residential areas, public roads, surrounding properties, recreational areas, and trails are incorporated into the project design to minimize visual impacts. Lighting installed within the project boundary would be hooded, directed downward, and turned off when not required. Metallic equipment at the high-voltage substation and switchyard would feature a low-reflectivity finish to minimize glare. Lighting for the project would be fully compliant with the County's Light Pollution Code.
Policy LU 6.1.3 Encourage commercial, industrial development and large-scale energy generation projects to provide buffers from public roads, adjacent and surrounding properties and residences, recreational areas, and trails.	

2.1.3.6 Light

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Dark Skies and Glare* (County of San Diego 2009) was used to establish significance thresholds. According to County guidelines, a significant impact would result if:

- The project will install outdoor light fixtures that do not conform to the lamp type and shielding requirements described in Section 51.204 (Requirements for Lamp Source and Shielding) and are not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.[6]
- The project will operate Class I or Class III outdoor lighting between 11:00 p.m. and sunrise that is not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.
- The project will generate light trespass that exceeds 0.2 foot-candles measured 5 feet onto the adjacent property.
- The project does not conform to applicable Federal, State or local statute or regulation related to dark skies or glare, including but not limited to the San Diego County Light Pollution Code.

Analysis

Construction and Decommissioning

Construction of the project would occur in two phases: Phase I would last approximately 12 months and Phase II would last approximately 18 months. It is anticipated there would be approximately a 1-year gap

[6] The County guidelines specifically reference the Requirements for Lamp Source and Shielding as Section 59.105; however, the County zoning ordinances have been updated since the publication of the guidelines. Requirements for Lamp Source and Shielding is now number as Section 51.204 of the County Light Pollution Code.

between construction of Phase I and Phase II. Construction activities would generally occur during the County's allowable hours and days of operation from 7:00 a.m. to 7:00 p.m., Monday to Saturday but may involve extended hours, as needed, to complete certain construction activities and/or during emergencies or as approved by the County. For most of the year, nighttime construction lighting would not be required. However, during emergencies, tasks requiring extended hours, and during late fall and winter months, the lack of adequate natural light may dictate that portable lighting sources be used at specific construction sites. If required, portable construction night lighting would temporarily illuminate and be focused on active areas of construction.

All temporary construction lighting would be compliant with the County's Light Pollution Code. Specifically, portable night lighting used during construction would be fully compliant with the lamp type and shielding requirements for Class II lighting as established by Section 51.204 of the County Light Pollution Code. Lighting would be fully shielded and directed downward to minimize opportunities for unnecessary sky glow and light trespass. Due to the anticipated limited frequency of night construction lighting use and compliance with the lamp type and shielding requirements of the County Light Pollution Code, short-term construction lighting impacts to nighttime views would be minimal.

Due to the anticipated limited frequency of night construction lighting use and through compliance with the lamp type and shielding requirements of the County Light Pollution Code, short-term construction lighting impacts to nighttime views would result in **less than significant** impacts**.**

Operation

All project lighting would have bulbs that do not exceed 100 watts or equivalent, and all lights would be shielded, directed downward, and would comply with the County Light Pollution Code, Section 51.201 et seq. The project would not generate light trespass that exceeds 0.2 foot-candles measured 5 feet onto the adjacent property. Outdoor lighting circuits would incorporate dusk-to-dawn photocell controllers, occupancy sensors, and/or switches, as appropriate. Additionally, lighting for the project would be designed in accordance with the County Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare and control of excessive or unnecessary outdoor light emissions. Further, the project would comply with the County Light Pollution Code. Lighting associated with operation of the project would conform with outdoor light fixtures, lamp types, and shielding requirements described in Section 51.205 and would not otherwise be exempt pursuant to Section 59.107 or Section 59.109 of the County Light Pollution Code. The project would not operate Class I or Class III outdoor lighting between 11:00 p.m. and sunrise that is not otherwise exempted pursuant to Section 51.212 of the County Light Pollution Code. Therefore, the project would result in **less than significant** impacts related to outdoor lighting, light trespass, and compliance with the County Light Pollution Code.

2.1.3.7 Glare

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Dark Skies and Glare* (County of San Diego 2009) was used to establish significance thresholds. According to County guidelines, a significant impact would result if:

- The project will install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color, that will create daytime glare and be visible from roadways, pedestrian walkways or areas frequently used for outdoor activities on adjacent properties.

Analysis

Construction and decommissioning of the project would not be expected to introduce any unique sources of glare. After construction, the project would introduce new structural elements and materials which could be potential sources of glare onto the project site, inherent with the conversion of undeveloped land to a solar facility. However, the solar glare analysis (see Appendix C) identifies no substantial daytime glare effects resulting from PV panels. The solar glare analysis finds that the project would have zero minutes of potential glint or glare at all airports and route receptors. This is primarily a result of the project location, with the main obstructing factors being intervening topography and vegetation that effectively prevents potential glint or glare.

Review of the solar glare analysis and the project lighting description indicates that proposed lighting, implemented in compliance with the County Light Pollution Code and policies, would not result in substantial light or glare nor adversely affect daytime or nighttime views in the area. Inclusion of **PDF-AE-2** through **PDF-AE-4** would ensure infrastructure equipment (inverters, BESS containers, and transmission line conductors) would be non-reflective in color and design. The project is not located on airport property and therefore is not subject to FAA jurisdiction under Federal Aviation Regulations Part 77 to protect airspace safety. The project is also located beyond the 2-mile final approach for the Jacumba Airport as defined in the Interim Solar Policy. In addition, the solar glare analysis (see Appendix C) identifies no substantial daytime glare effects resulting from PV panels. The project would have zero minutes of potential glint or glare at all airports and route receptors. Therefore, the project would result in **less-than-significant** impacts related to glare.

2.1.4 Cumulative Impact Analysis

The discussion of cumulative impacts relates to the potential for the project to contribute to an aggregate change in visual quality from the surrounding public viewing areas, taking into consideration existing as well as proposed development. The cumulative study boundary for visual resources encompasses the project viewshed. The character elements of cumulative development occurring within the project viewshed contribute to the overall visual character of the viewshed and would affect, either negatively or positively, the quality of existing views of the landscape. Both the project and development occurring or planned within the viewshed of a designated scenic road could combine to permanently alter the visual character of the landscape and diminish the quality of existing views of valued scenic resources.

The cumulative analysis for aesthetic impacts was performed using the projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting. Cumulative projects in the area include several existing and proposed wind and solar renewable energy projects, public facilities improvement projects, and the Rough Acres Ranch Campground, all located within the project viewshed and the greater surrounding area.

This analysis focuses on the operational impacts of the project, as construction would be temporary in nature and would have minimal impacts compared to full buildout. Following the end of its useful life (approximately 30 years), the project would be subject to decommissioning and site reclamation. Structures and equipment would be removed, and new project access roads and corridors would be closed. Decommissioning of the substation and switchyard would involve deconstruction of those structures.

Cumulative projects considered in this analysis are those in the project viewshed that would produce similar visual effects as the project. Therefore, for purposes of this analysis, electrical substation, solar energy, wind energy, transmission line, and energy storage projects within the cumulative study area are considered and would include highly visible and distinct elements (e.g., wind turbines) or would create similar form,

line, color, and texture contrasts as the proposed solar facility. The projects listed in Table 1-4 (see Chapter 1.0) are considered in the cumulative impact analysis provided below.

2.1.4.1 Cumulative, Visual Character and Quality

The project would not align with the undeveloped, desert landscape and small-town character of Boulevard. The implementation of the project and other foreseeable projects considered in the cumulative scenario would result in an increasingly modified landscape and reduced visual quality. Contrasts in structure and facility scale, size, massing, color, and materials associated with cumulative projects and less-intensely developed lands would be visible to a relatively large volume of viewers within the cumulative study area, including motorists on federal and state highways, local roads, users of recreational lands, and rural residential communities. The number of completed and proposed energy generation developments, electrical substations, and electrical transmission lines in the Boulevard area would result in significant visual changes. The implementation of projects considered in the cumulative scenario would result in an increasingly modified landscape and reduced visual quality.

Thus, in conjunction with cumulative projects, the project would result in a **cumulatively considerable** impact (**Impact AE-CU-1)** on the existing visual character of the area.

2.1.4.2 Cumulative, Valued Visual Character and Image of Community

The introduction of numerous prominent and bold structures and facilities would contrast with the valued visual character of the local communities in the cumulative study area. Existing development in the cumulative study area primarily features a rural residential character. However, the area is also characterized by interstate and local road development, a major U.S. Customs and Border Protection station, regional electrical infrastructure and substations, and utility-scale wind and solar energy projects. In addition, cumulative approved projects, including the Campo Wind project, would be visible from the I-8 corridor. Solar and wind projects with visually prominent components and/or large development footprints would typically result in the removal of existing vegetation, an element identified in the Boulevard Subregional Plan as contributing to the valued visual character of the community (County of San Diego 2013). Similarly, the project would result in the removal of vegetation throughout the site, degrading the open, unencumbered characteristic of the project site.

In conjunction with the project, the cumulative projects would dominate views in the area and result in prominent visual changes within the largely undeveloped landscape. Therefore, the project would result in a **cumulatively considerable** impact (**Impact AE-CU-2)** on the valued visual character or image of neighborhoods, communities, and localized areas.

2.1.4.3 Cumulative, Focal and Panoramic Vistas

Views of the project site are available from I-8, Old Highway 80, Jewel Valley Road, SR 94, and Tierra del Sol Road, as well as from privately owned residences. The cumulative projects are situated near the project site and are similarly visible from these public roads. Although components of these projects would not result in substantial view blockage, the large footprints of the developments and their contrasting forms, lines, and colors are particularly noticeable in the local desert environment and tend to interrupt panoramic views from public roads. Therefore, combined with existing and proposed developments in the study area, the project would contribute to a **cumulatively considerable** impact (**Impact AE-CU-3)** on focal or panoramic vistas.

2.1.4.4 Cumulative, Plan Compliance

The project would introduce a utility-scale solar facility into an otherwise mostly natural setting which would be seen throughout much of the surrounding region. Although other renewable energy facilities exist in the region, the project features would visually diminish the existing landscape quality and character of the site and surroundings. As discussed in Section 2.1.3.5, Plan Compliance, the project would comply with applicable visual and aesthetic goals as listed in the Mountain Empire Subregional Plan and Boulevard Subregional Plan.

Since the project would adhere to the goals, policies, and requirements of the appliable plans, and because similar development has occurred and is proposed within the subregional plan area, impacts from the project related to plan compliance would **not be cumulatively considerable**.

2.1.4.5 Cumulative, Light

Similar to the project, identified cumulative projects would be evaluated individually to determine the severity of lighting and glare impacts. As discussed above, all project lighting would have bulbs that do not exceed 100 watts or equivalent, and all lights would be shielded, directed downward, and would comply with the County Light Pollution Code, Section 51.201 et seq. Outdoor lighting circuits would incorporate dusk-to-dawn photocell controllers, occupancy sensors, and/or switches, as appropriate. Additionally, lighting for the project would be designed in accordance with performance standards listed in the County Zoning Ordinance. Adhering to these requirements would minimize the potential for light trespass onto adjacent properties and excess illumination of the nighttime sky. All other proposed cumulative solar facilities are expected to have similar operational lighting scenarios as the project. Furthermore, all proposed cumulative projects located on private lands under County jurisdiction would need to comply with the applicable lighting and shielding requirements of the County Light Pollution Code. By conforming to existing County regulations, the project **would not result in a cumulatively considerable impact** associated with facility lighting.

2.1.4.6 Cumulative, Glare

As discussed in Section 2.1.3, the project would introduce new structural elements and materials which could be potential sources of glare onto the project site, inherent with the conversion of undeveloped land to a solar energy facility. However, the solar glare analysis (see Appendix C) identifies no substantial daytime glare effects resulting from PV panels. The solar glare analysis finds that the project would have zero minutes of potential glint or glare at all airports and route receptors. It is anticipated that all related projects would also be required to analyze and mitigate potential glare impacts. Therefore, glare from project components would not combine with anticipated glare effects from other solar projects to create a cumulative glare impact on daytime views in the area. Thus, the project **would not result in a cumulatively considerable impact** associated with glare.

2.1.5 Significance of Impacts Prior to Mitigation

2.1.5.1 Visual Character and Quality

The existing visual character of the project site and its surroundings is a product of both natural and built elements, including uses such as rural and agriculture uses, residential, commercial, public infrastructure, and open space. The project site is spread over a large and varied area; however, its rolling topography and hillsides, patterns of native vegetation, and mostly rural use all contribute to a moderately high to high existing visual quality.

Although visibility of the project would be somewhat blocked from certain mid- and long-range public views, the project would result in a noticeable contrast with the visual character and quality of the natural and rural setting where visible. As seen from closer viewpoints, the project would be visible and alter the visual context. The project would alter the visual character of the site and the project vicinity. A change in character is inherent with the conversion of open space and rural land to an infrastructure development such as this. The project would remove substantial amounts of mature native vegetation. Large swaths of PV arrays and other supporting project elements constructed throughout the project site would introduce a new, visually detracting use into the viewshed as seen from surrounding public viewpoints.

Therefore, the project would detract from the existing visual quality and contrast with the mostly rural and natural landscape and small-town character of the surrounding community and would result in **significant** impacts (**Impact AE-1**).

2.1.5.2 Valued Visual Character and Image of Neighborhood or Community

The project would alter the visual character of the site and the project vicinity. As seen from distant viewpoints, the project would result in a noticeable contrast with the visual character and quality of the natural and rural setting. From closer viewpoints, the project would be visible and would alter the visual context.

The project would introduce a utility-scale solar array facility into an otherwise mostly natural setting which would be seen throughout the surrounding region. However, the Boulevard Subregional Plan Area has and continues to experience changes in its neighborhood character due to the continued development of renewable energy facilities. The area that originally was predominantly rural in nature with large homesteads is becoming increasingly developed with private facilities, civic uses and energy infrastructure and facilities. The subregional plan area supports a range of development including large lot rural residential structures, private use equestrian facilities, small-scale rural commercial businesses, undeveloped open space, communication facilities and electrical infrastructure, and existing and approved wind energy facilities.

While the landscape of the area has changed, the project features would still visually detract with the existing landscape quality and character. The project would interrupt primary and secondary ridgelines as seen from two important travel corridors, I-8 and SR 94. The proposed substantial removal of native vegetation would be noticeable with the natural landscape patterns. The scale and visual exposure of the project would alter the scenic quality of the landscape.

As a result of these factors, the project would still result in an adverse change to aesthetic features that contribute to the valued visual character and image of the community and surrounding area. Therefore, the project would result in a **significant** impact to visual character (**Impact AE-2**).

2.1.5.3 Focal and Panoramic Vistas

Because of its large expanse, layout, and varied landform, portions of the project would be seen over a wide area in the region and would have a potential effect on a number of scenic vistas throughout the area, including views from I-8, SR 94, Jewel Valley Road, and Tierra del Sol Road. As seen from many of the surrounding viewpoints, portions of the project would be seen on either a primary or secondary ridgeline, extending above the horizon line. This alteration of the surrounding ridgelines and visual backdrop would adversely affect existing scenic vistas throughout the region. As a result, the project would cause a reduction in the quality of existing scenic vistas. Therefore, the project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, scenic vista or highway, and

recreational area. As such, the project would have a substantial effect on the existing scenic vistas, resulting in a **significant** impact (**Impact AE-3**).

2.1.5.4 General Plan and Subregional Plan Compliance

The project would introduce a utility-scale solar array facility into an otherwise mostly natural setting which would be seen throughout much of the surrounding region. Although other renewable energy facilities exist in the region, the project features would still visually detract from the existing landscape quality and character of the site and surroundings.

As discussed in Section 2.1.3.5, Plan Compliance, and Section 2.1.4, Cumulative Impact Analysis, although implementation of the project was determined to result in significant and unmitigable impacts to focal or panoramic vistas from several locations including I-8 and Old Highway 80, the project would comply with applicable visual and aesthetic goals as listed in the General Plan (County of San Diego 2011b), the Boulevard Subregional Plan (County of San Diego 2013), and the Mountain Empire Subregional Plan (County of San Diego 2016). Therefore, the project would result in **less than significant** impact related to plan compliance.

2.1.5.5 Light

Review of the project and the surrounding area shows that it would introduce new lighting onto the project site, inherent with the conversion of undeveloped land to a solar energy facility. However, the project would be in compliance with the County Light Pollution Code and policies and would not result in substantial light nor adversely affect daytime or nighttime views in the area. Therefore, the project would result in a **less than significant** impact related to light.

2.1.5.6 Glare

Review of the project and the surrounding area shows that it would introduce potential sources of glare onto the project site, inherent with the conversion of undeveloped land to a solar energy facility. However, the solar glare analysis (see Appendix C) identifies no substantial daytime glare effects resulting from PV panels. However, the project would be in compliance with the County Light Pollution Code and policies, and would not result in substantial glare nor adversely affect daytime or nighttime views in the area. Therefore, the project would result in a **less than significant** impact related to glare.

2.1.6 Mitigation Measures and Project Design Features

2.1.6.1 Mitigation Measures

As stated above, the project would result in a significant effect on the existing visual quality and character of the site and surroundings and degrade scenic vistas. No feasible mitigation measures have been identified to reduce the visual impacts of the project to a less than significant level (**Impacts AE-1** through **AE-3**).

2.1.6.2 Project Design Features

The Applicant has identified and committed to including the following project design features as part of the project to alleviate adverse aesthetics effects, to the extent feasible.

PDF-AE-1 The Applicant will coordinate with the resident of any existing (existing as of the date of Record of Decision approval) private residence located within a distance of 500 feet of a project solar panel installation to assess visibility impact complaints made within 1 year

from the initial operations date of the project. This assessment would include possible remedies that the Applicant may implement depending upon the level of visibility impacts occurring at the residence, including financial assistance for the installation of visual screening measures, such as landscaping or fencing. Requests for assistance can be made through a project hotline to be established by the Applicant and published on the Applicant's website.

PDF-AE-2 Inverter enclosures will be a non-reflective color. If the enclosures are not manufactured as non-reflective, the enclosures shall be painted a non-reflective color.

PDF-AE-3 Energy storage containers will be a non-reflective color. If the containers are not manufactured as non-reflective, the containers will be painted a non-reflective color.

PDF-AE-4 All new transmission line conductors will be non-reflective in design to reduce conductor visibility and visual contrast.

2.1.7 Conclusion

2.1.7.1 Visual Character and Quality

Although the project includes **PDF-AE-1** through **PDF-AE-4**, the project would still detract from the existing visual quality and contrast with the mostly rural and natural landscape and small-town character of the surrounding community. Since feasible mitigation measures have not been identified that would further reduce anticipated theme, style, size, scale, massing, and color contrasts resulting from construction and operation of the project, **Impact AE-1** would be **significant and unavoidable**.

2.1.7.2 Valued Visual Character and Image of Neighborhood or Community

Although the project includes **PDF-AE-1** through **PDF-AE-4**, the project would still result in a change to aesthetic features that contribute to the valued visual character and image of the community and surrounding area. Since feasible mitigation measures have not been identified that would further reduce the project's adverse effect on the valued visual character and quality of the community, neighborhood, and area, **Impact AE-2** would be **significant and unavoidable**.

2.1.7.3 Focal and Panoramic Vistas

Although the project includes **PDF-AE-1** through **PDF-AE-4**, the project would still substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, scenic vista or highway, and recreational area. Since feasible mitigation measures have not been identified that would further reduce the project's adverse effect on valued scenic vistas, **Impact AE-3** would be **significant and unavoidable**.

2.1.7.4 Plan Compliance

The project would have a **less than significant** impact related to compliance with applicable goals, policies or requirements of an applicable County community plan or subregional plan, or a historic district's zoning.

2.1.7.5 Light

The project would comply with County performance standards regarding lighting during construction and operations; therefore, impacts would be **less than significant.**

2.1.7.6 Glare

The project would comply with County performance standards regarding glare-related issues; therefore, impacts would be **less than significant.**

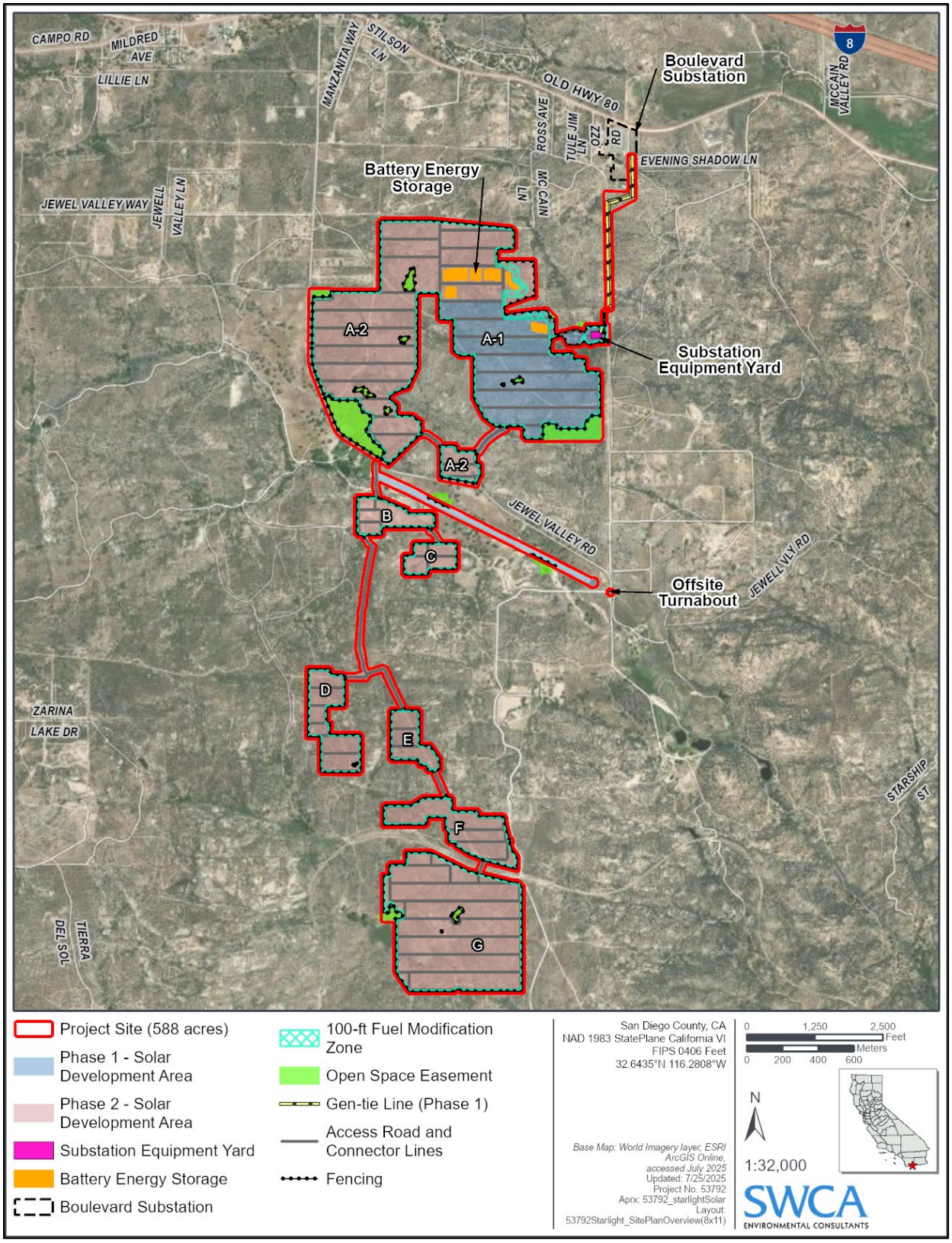

Figure 2.1-1. Project Layout

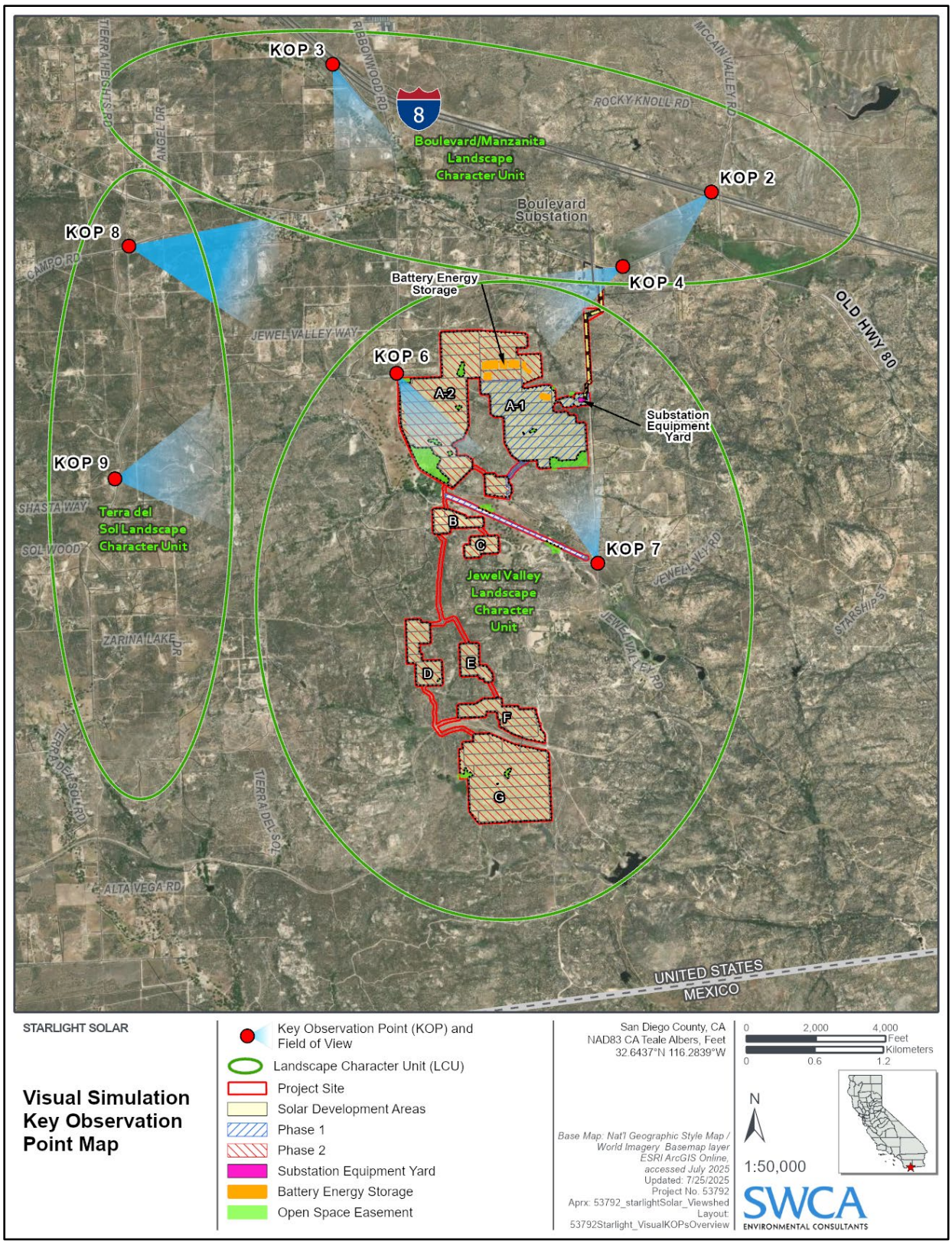

Figure 2.1-2. Key Observation Point and Landscape Character Unit Locations



Figure 2.1-3. Visual Simulation – KOP 2, View from Interstate 8 Westbound, Facing Southwest





Figure 2.1-4. Visual Simulation – KOP 3, View from Interstate 8 Eastbound, Facing Southeast



Figure 2.1-5. Visual Simulation – KOP 4, View from Old Highway 80, Facing Southwest





Figure 2.1-6. Visual Simulation – KOP 6, View from Jewel Valley Road, Facing Southeast

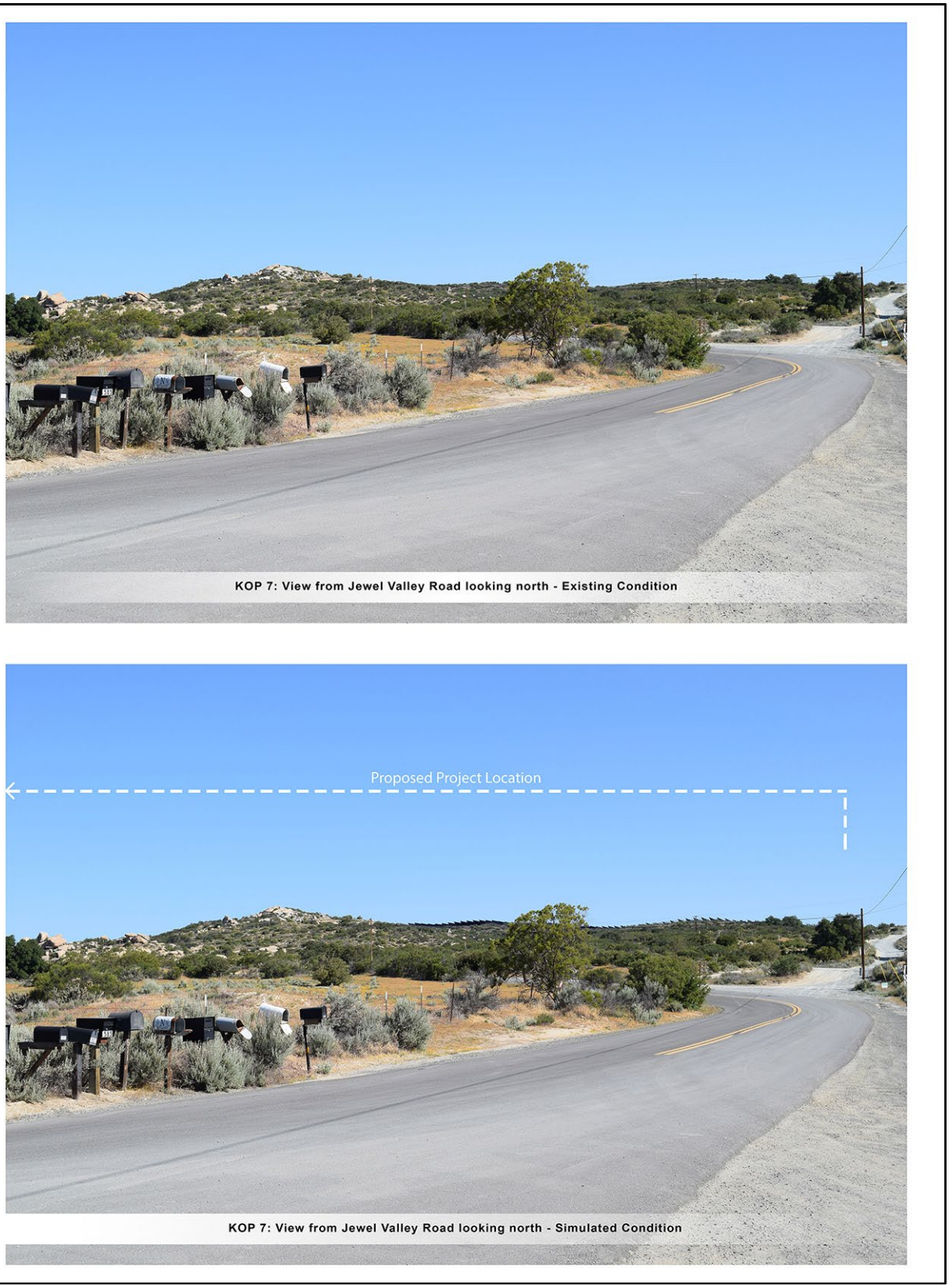

Figure 2.1-7. Visual Simulation – KOP 7, View of Jewel Valley Road, Facing North

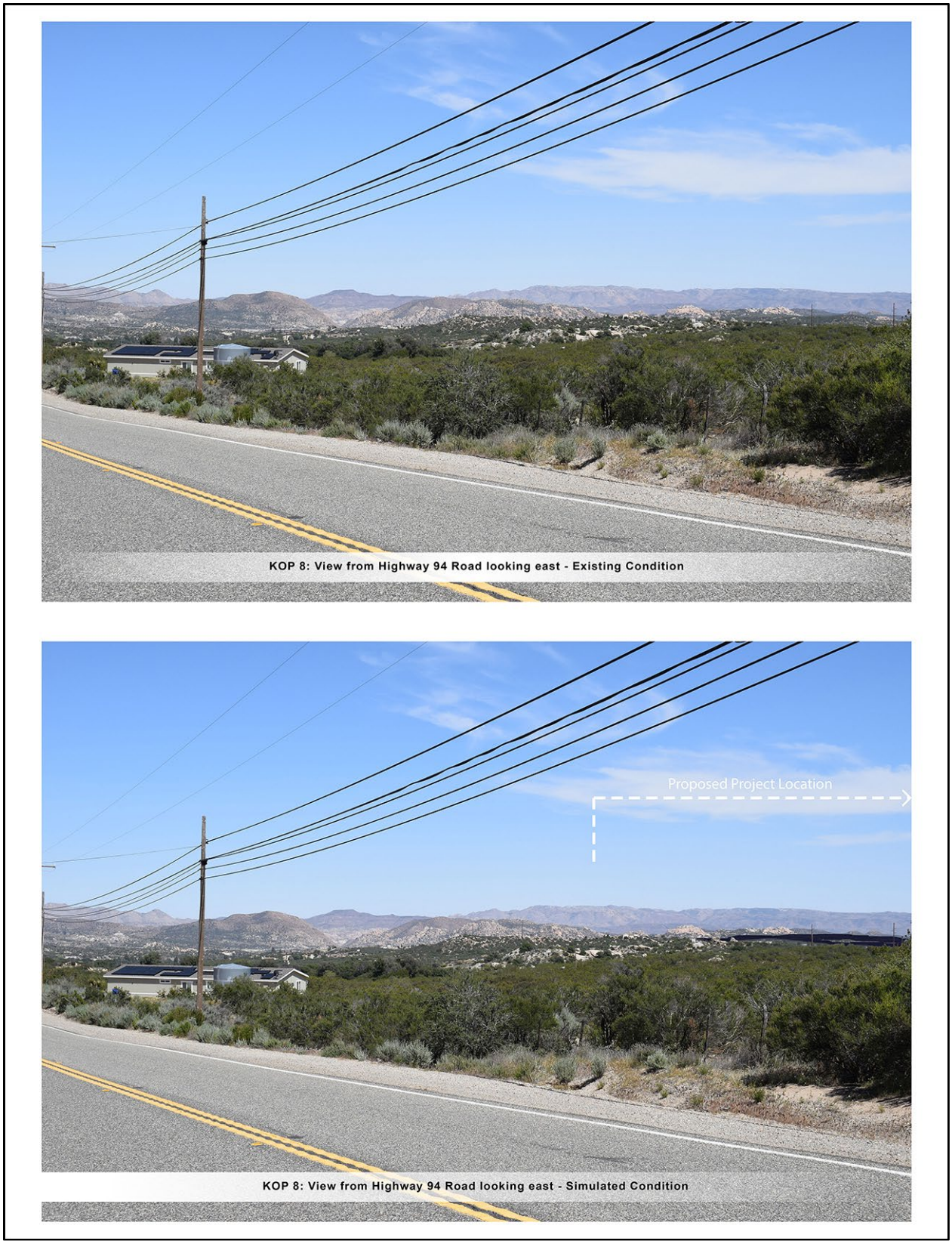

Figure 2.1-8. Visual Simulation – KOP 8, View from State Route 94, Facing East



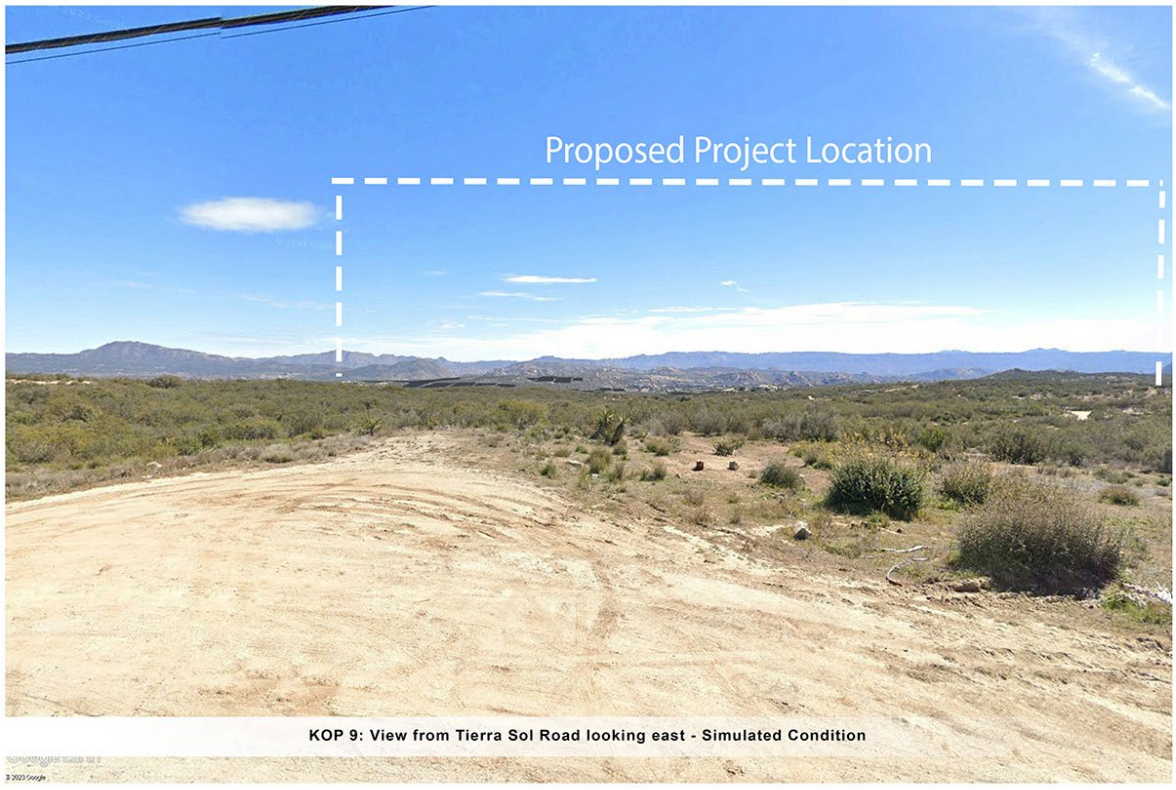

Figure 2.1-9. Visual Simulation – KOP 9, View from Tierra del Sol Road, Facing East

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2.2 Biological Resources

This section of the Environmental Impact Report (EIR) discusses and evaluates potential impacts to biological resources resulting from the implementation of the project. The analysis focuses on potential impacts resulting from project implementation on special-status species, riparian habitats and other sensitive natural communities, jurisdictional wetlands and waters, habitat connectivity and wildlife movement corridors, and consistency with applicable plans. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following document prepared for the project, which was prepared in accordance with the *County Guidelines for Determining Significance – Biological Resources* (County of San Diego 2010a) and *County of San Diego Report Format and Content Requirements – Biological Resources* (County of San Diego 2010b):

- *Biological Resources Report for the Starlight Solar Project, Boulevard, San Diego County, California* (Biological Resources Report; SWCA Environmental Consultants [SWCA] 2025) (Appendix D to the EIR)
- *Groundwater Monitoring and Mitigation Plan for the Starlight Solar Project* (INTERA Incorporated [INTERA] 2025; Appendix G.2 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the Planning Agreement for the North County Multiple Species Conservation Program (MSCP) and East County MSCP (ECMSCP), impacts to sensitive and special-status wildlife and plant species, migratory birds, wetland resources, habitat fragmentation, wildlife corridors and movement within the area; and indirect impacts to biological resources in nearby public lands, local biodiversity, open space, adjacent natural habitats, and any designated reserve lands. These concerns are addressed in this section of the EIR where applicable and within the Biological Resources Report (see Appendix D). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

2.2.1 Existing Conditions

2.2.1.1 Environmental Setting

This section summarizes the existing biological resources documented during field surveys conducted between 2022 and 2025 within the project site and identifies those resources that could potentially be affected by the project. Biological resources include both organisms and the physical environment in which they occur. Biological resources are categorized in this section into vegetation communities, flora and fauna, special-status plant and animal species, jurisdictional wetlands and waters, and wildlife corridors within the project site.

The approximately 588-acre project site is situated within the Peninsular Range, in a transitional area between coastal and desert ecosystems. Typical climatic conditions are dry with average temperatures near the community of Boulevard ranging from approximately 34–94 degrees Fahrenheit, and average rainfall is less than 15 inches per year (Western Regional Climate Center 2024).

The site's elevation varies from approximately 3,450 feet above mean sea level (amsl) in the southern portion of the site to 3,650 feet amsl in the northeastern portion of the site. The project site supports a variety of habitats with the dominant vegetation being chaparral.

2.2.1.2 Regional Context

The approximately 588-acre project site is located within the Mountain Empire Subregion in southeastern unincorporated San Diego County. The Mountain Empire Subregion contains five subregional planning

areas. The project site is located in the Boulevard Subregional Planning Area. The project site is located south of Interstate 8 (I-8) and Old Highway 80, and east of Tierra Del Sol Road.

In San Diego County, several resource conservation planning efforts have been completed or are in progress with the goal of establishing a regional reserve system that will protect sensitive habitats and the species that depend on them. The goal is establishment of biological reserve areas in conformance with the State Natural Community Conservation Planning (NCCP) Act and contributing to the preserve system already established by the approved MSCP. The project site is within the draft ECMSCP area (Figure 2.2-1).

Projects within the ECMSCP planning region were governed by a 2014 Planning Agreement involving the County of San Diego (County), California Department of Fish and Wildlife (CDFW), and the U.S. Fish and Wildlife Service (USFWS). However, the Planning Agreement expired on February 1, 2020. In April 2021, the County executed a Restated and Amended Planning Agreement concerning the North County MSCP and ECMSCP with CDFW and USFWS. The current evaluation of the project is conducted in consideration of prospective plans for a future ECMSCP plan. All land on-site and surrounding the project site is planned for spaced rural residential.

2.2.1.3 Open Space Easement Areas

As shown in Figure 2.2-2, an off-site biological open space easement area (mitigation site) would be granted over an approximately 447.93-acre area that includes sensitive vegetation communities, special-status plant species, and habitat for special-status species to protect sensitive biological resources. This biological open space easement area would be granted to the County or other approved conservation entity. Granting of this open space would authorize the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. This easement area is for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The biological open space easement area would be unfenced. As the project is proposed in two phases, two separate open space easements would be dedicated within the 447.93-acre area. The recordation of each open space easement would occur prior to the issuance of a grading permit for each phase.

2.2.1.4 Habitat Types/Vegetation Communities

Vegetation communities and land cover types within the project site are described below. The acreages of each vegetation community and land cover type are presented in Table 2.2-1. An overview of the communities and land cover types on-site is provided in Figure 2.2-3 and detailed sheets are provided in Appendix B of the Biological Resources Report.

Fourteen natural communities and land cover types were identified within the survey area. The following natural communities were documented, listed in order of largest to smallest coverage: granitic northern mixed chaparral, redshank chaparral, granitic chamise chaparral, montane buckwheat scrub, field/pasture, big sagebrush scrub, open coast live oak woodland, non-native grassland, southern riparian scrub, freshwater, freshwater seep, coast live oak woodland, alkali marsh, and tamarisk scrub. In addition to the natural communities, three additional cover types within the category of disturbed or developed were also mapped, including urban/developed, bare ground, and disturbed areas.

CDFW evaluates natural communities at both the global (full natural range within and outside of California) and state (within California) levels resulting in a single G (global) and S (state) rank ranging from 1 (very rare and threatened) to 5 (demonstrably secure). Natural communities with ranks of S1–S3 are considered

Sensitive Natural Communities to be addressed in the environmental review processes of the California Environmental Quality Act (CEQA) and its equivalents (CDFW 2024a). The California Native Plant Society (CNPS) classification conversion tool (CNPS 2024a) was used to convert natural communities mapped under the Holland classification system to the classification system used in A Manual of California Vegetation Online (CNPS 2024b) to determine the global and state rarity ranks of Holland (1986) communities.

Table 2.2-1. Summary of Natural Communities and Cover Types Mapped in the Survey Area and Project Site

Natural Communities and Cover Types	Acres within Survey Area	Acres within Project Site
Granitic Northern Mixed Chaparral (37131)	339.05	236.49
Redshank Chaparral (37300)	238.27	146.2
Granitic Chamise Chaparral (37210)	92.95	65.07
Montane Buckwheat Scrub (37K00)	60.11	54.89
Field/Pasture (18310)	44.63	28.10
Big Sagebrush Scrub (35210)	27.80	15.38
Disturbed (11300)	18.34	10.01
Bare Ground	42.75	24.73
Urban/Developed (12000)	8.19	0.03
Open Coast Live Oak Woodland (71161)	19.51	4.64
Non-Native Grassland (42200)	5.32	2.49
Tamarisk Scrub (63810)	0.03	0.00
Freshwater Seep (45400)	0.29	0.04
Southern Riparian Scrub (63300)	0.80	0.00
Freshwater (64140)	0.54	0.00
Coast Live Oak Woodland (71160)	0.27	0.00
Alkali Marsh (52300)	0.12	0.00
Total	**898.97**	**588.07**

Granitic Northern Mixed Chaparral (37131)

Granitic northern mixed chaparral is composed of dense vegetation in granitic soils. Growth occurs primarily during the spring, slowing in the fall and winter. Regular fires stimulate growth of chaparral species, an adaptation which defines this habitat type. After fires, early successional species including annual herbs species re-establish first, succeeded by perennials and then small shrubs. Finally, after several years, the characteristic chaparral species dominate once again. Vegetation within this habitat type is distributed evenly, with gaps between individual species revealing the characteristic granitic soils. Within the granitic northern mixed chaparral, the major species observed included mountain mahogany (*Cercocarpus betuloides*), California buckwheat (*Eriogonum fasciculatum*), and chamise (*Adenostoma fasciculatum*). Within the survey area, this habitat is primarily north of Jewel Valley Road but does occur in patches south of Jewel Valley Road and the San Diego & Arizona Eastern Railway (SD&AE Railway).

The granitic northern mixed chaparral alliance is not officially ranked by CDFW (2024a); however, granitic northern mixed chaparral is considered special-status based on mitigation recommendations of the County (County of San Diego 2010a).

Redshank Chaparral (37300)

Redshank chaparral can be found mostly on slopes ranging from 300 to 6,000 feet amsl. It is a habitat type predominantly composed of red shank (*Adenostoma sparsifolium*). The vegetation within this habitat community is not as thick as chaparral, with taller growth creating larger gaps in the understory. Within the survey area, there are transition habitats between chaparral and granitic northern mixed chaparral, which formed a significant portion of the vegetation cover for the survey area. Within the redshank chaparral, chamise and California buckwheat were also present, but only made up approximately 15% of the understory.

The redshank chaparral alliance has a rank of G4S4 in CDFW (2024a), which means it is categorized as apparently secure both within the state and worldwide. This community is considered special-status based on mitigation recommendations of the County (County of San Diego 2010a).

Granitic Chamise Chaparral (37210)

Granitic chamise chaparral exists in areas with vegetation of 3–10 feet where chamise is the predominant species present and other species contribute to little of the overall cover. It is normally found in locations up to 3,000 feet amsl in elevation. Vegetative cover within this habitat is dense, with few gaps present between plants and little to no understory. This habitat community can be found in both shallow and xeric soils and at slightly lower elevations. The drier ridges and slopes favored by granitic chamise chaparral are often within the vicinity of areas with slightly wetter soils. Within the survey area, chamise chaparral occurred in both the north and south sections relative to Jewel Valley Road.

The granitic chamise chaparral alliance has a rank of G5S5 in CDFW (2024a), which means it is categorized as apparently secure both within the state and worldwide. This community is considered special-status based on mitigation recommendations of the County (County of San Diego 2010a).

Montane Buckwheat Scrub (37K00)

Montane buckwheat scrub is defined by its almost entirely homogeneous collection of California buckwheat. California buckwheat makes up approximately 50% of the cover. It often lies on the outskirts of chaparral or redshank chaparral, a part of primary succession following a large disturbance. Progressively, this habitat will give way to the development of larger shrubs and eventually transition into the habitat types that surrounded it initially. This habitat type can be found at higher elevations. Within the survey area, California buckwheat was found to be concurrent with other, less dominant species including big sagebrush (*Artemisia tridentata*) and cholla (*Cylindropuntia* spp.). Deerweed (*Acmispon glaber* [*Lotus scoparius*]) is another species often found within this habitat type. The largest areas of montane buckwheat scrub were mapped in the southernmost portion of the survey area, generally surrounded by redshank chaparral or granitic northern mixed chaparral, and in the northern section on the western edge of the survey area bordered by chamise, as well as redshank and granitic northern mixed chaparral.

The montane buckwheat scrub alliance has a rank of G5S5 in CDFW (2024a), which means it is categorized as apparently secure both within the state and worldwide. This community is considered special-status based on mitigation recommendations of the County (County of San Diego 2010a).

Field/Pasture (18310)

Field/pasture occur where humans have intentionally planted and plowed the land. These areas are characterized by dense cover (or during fallow seasons no cover). They are homogeneous and do not incorporate any diversity of native species. They are usually either maintained (planted and watered) by humans or have endured significant disturbances that have disallowed native vegetation from returning to

the area. In the latter case, nonnative species tend to dominate. These areas can be managed by grazing and may host cattle. Within the survey area, field/pasture habitats occur exclusively south of Jewel Valley Road.

The disturbed alliance is not considered a natural community and is therefore not officially ranked by CDFW (2024a), but this habitat does require mitigation per County guidelines (County of San Diego 2010a).

Big Sagebrush Scrub (35210)

This habitat community is distinguished by the presence of soft-wooded shrubs, with big sagebrush being the overriding species. The vegetation height reaches up to 6 feet, and is usually dense, with some patches of bare ground between and beneath the shrubbery. Flowers within this classification can be seen during the blooming period of late spring (e.g., antelope bush (*Purshia* spp.) to early autumn (e.g., sagebrush [Artemisia spp.], rabbitbrush [*Chrysothamnus* spp.]), with growth ceasing during the winter months (Oberbauer et al. 2008). Preferred elevation is between 4,000 and 9,000 feet and is distributed on the peripheries and encompassed by the Mojave and Sonoran deserts, as well as within the mountainous areas of Southern California. It is extensive between the mountain ranges of the west. Required soil type and temperature range is versatile. Occurs within rocky, granular, and fine soils both in depressed areas and hillsides withstanding varying temperatures and both moist and dry conditions. Within the survey area, the largest patches were seen directly south of Jewel Valley Road and south of SD&AE Railway at the north end of the central section, as well as in the southern section generally surrounding the line of the drainage running from northwest to the southeasternmost corner of the project site.

The big sagebrush scrub alliance has a rank of G4S4 in CDFW (2024a), which means it is categorized as apparently secure both within the state and worldwide. This community is considered special-status based on mitigation recommendations of the County (County of San Diego 2010a).

Disturbed (11300)

Disturbed habitat is distinguished by the dominance of nonnative plants, with obvious signs of human interference, or where the landscape has been obviously altered by construction or farming. In disturbed areas there is little to no evidence of native species. Most species have been removed or altered by human activities. Within the survey area, the fields just south of Jewel Valley Road, contained the most human disturbance. There, plowed fields were observed along with trash discarded throughout the habitat. Other disturbed sections of the project site included the area surrounding the SD&AE Railway. Here, plants were growing sparsely, and no vegetation was present within the developed area itself.

Disturbed habitat is not considered special-status by CDFW (2024a) or the County (County of San Diego 2010a).

Bare Ground

Sections within the survey area consisting of bare ground were primarily located near developed areas and within established access roads. Bare ground consists of unpaved access roads, graded roads and does not contain pavement or gravel. Aside from areas with increased development, bare ground areas tend to occur between patches of habitat, or in areas that have been disturbed. Within the survey area, bare ground habitat was observed all throughout the survey area. Bare ground was found alongside the SD&AE Railway where continued disturbance has prevented establishment of new growth. It was also observed within the boundaries of the developed property, as well as alongside the right-of-way along Live Oak Springs Road.

Bare ground areas are not considered special-status by CDFW (2024a) or the County (County of San Diego 2010a).

Urban/Developed (12000)

Developed areas incorporate any landscapes which have actively been changed by humans. This could involve construction, housing developments, paved roads, or any other areas where natural habitats have been made absent. This could also include gravel roads. Urban/Developed areas are found in the far northeastern corner of the survey area and includes Jewel Valley Road.

The urban/developed areas are not considered special-status by CDFW (2024a) or the County (County of San Diego 2010a).

Open Coast Live Oak Woodland (71161)

This habitat generally marks the transition into woodland habitat types, and often co-occurs with other habitat types including chaparral and riparian. Open coast live oak woodland is an evergreen forest dominated by coast live oak with gaps in the canopy creating a cover of less than 50% (Oberbauer et al. 2008). The canopy typically reaches a height between approximately 30 and 80 feet. The understory species range from condensed woody subshrubs to patchy herbaceous cover and can also contain grassland. In many cases the ground cover below the oaks was disturbed due to being plowed, or had clear signs of human disturbance, within an active field/pasture or development. Open coast live oak woodlands are often found along drainages on north-facing slopes. Within the south end of the project site, stands of coast live oak were found in the south moving northwest along an old riparian corridor. In the north, groups of coast live oak were found on the southeast edge, as well as east of Jewel Valley Road, mostly adjacent to the road but several stands were documented approximately 350 feet east of the road. Open coast live oak woodland was mapped according to Section 3.5.5 of the County guidelines (County of San Diego 2010b).

The open coast live oak woodland alliance is not officially ranked by CDFW (2024a). However, all coast live oak woodlands are considered special-status by the County (County of San Diego 2010a)

Non-Native Grassland (42200)

Non-native grasslands are defined as having a vegetative layer of annual grasses that ranges from minimal to dense. This habitat type may also contain herbaceous flowering species mixed in with the grasses. Species that fell within this habitat type inside the survey area were wildoat (*Avena* spp.), brome grasses (*Bromus* spp.), and storksbill (*Erodium* spp.). It can be correlated with previous disturbances such as grazing. Ratios of wildflowers to annual grasses are dependent upon precipitation; however, the distinguishing feature is the dominance of nonnative grasses, which will eventually preside over the landscape. Soils within these habitat types range from extremely saturated in the winter to dehydrated in the summer months. This habitat type was found directly north of Jewel Valley Road across from the entrance to Empire Ranch.

The non-native grassland alliance is not considered a natural community and is therefore not officially ranked by CDFW (2024a). However, non-native grasslands are recognized as a special-status community by the County (County of San Diego 2010a).

Tamarisk Scrub (63810)

Tamarisk scrub habitat can be found in areas of high salinity and sandy soils where water dissipates rapidly. The principal species in this habitat, tamarisk (*Tamarix* spp.), is highly accustomed to these dry and saline regions. Their adaptations to these conditions include a root system of great breadth and depth, allowing them to find water in areas containing little moisture. They are also extremely resourceful with the water they obtain. Within tamarisk scrub, other riparian species including salt grass (*Distichlis spicata*), willow (*Salix* spp.), and arrowweed (*Pluchea sericea*), can also be present although they were not observed within the survey area. In the far southeastern corner of the survey area, one small patch of tamarisk scrub was

found, adjacent to a former large waterbody where soils were looser and more granular than in the surrounding areas.

The tamarisk scrub alliance is not considered special-status by CDFW (2024a) but is considered a type of riparian scrub requiring mitigation by the County (County of San Diego 2010a).

Freshwater Seep (45400)

Freshwater seeps are defined as areas that contain soils that continuously hold moisture. They are normally located in proximity to grasslands or meadows. These are present within most areas of Southern California, and within San Diego County are contained within drainages that funnel water (Oberbauer et al. 2008). Within the survey area, this habitat type was associated with one drainage extending away from alkali marsh found between Jewel Valley Road and the SD&AE Railway between two existing bare ground access roads.

The freshwater seep alliance has a rank of G4S3 in CDFW (2024a), which means it is categorized as apparently secure globally and vulnerable at a state level. Also, the County considers this habitat to be special-status (County of San Diego 2010a).

Southern Riparian Scrub (63300)

Southern riparian scrub occurs in wetter areas where smaller trees and large shrubs are predominant. It is characterized by the absence of larger hydrophilic trees. This habitat mainly exists along rivers where flooding caused erosion. This habitat is distributed throughout San Diego County with multiple willow species and broom baccharis present. The only area within the survey area where southern riparian scrub was observed was a roughly 600-foot section associated with the existing freshwater pond in the southwestern corner of the survey area outside of the project site. Within this area, large stretches of yerba santa (*Eriodictyon californicum*) were observed.

The southern riparian scrub alliance is not officially ranked by CDFW (2024a). However, southern riparian scrub is recognized as a special-status community by the County (County of San Diego 2010a).

Fresh Water (64140)

Freshwater areas are defined as year-round bodies of fresh water (with low salinity) in the form of lakes, streams, ponds, and rivers. This includes these portions of water bodies that are usually covered by water and contain less than 10% vegetative cover (Oberbauer et al. 2008). The only body of fresh water is in the southwest corner of the survey area in the form of a pond outside of the project site.

The freshwater alliance is not considered a natural community and is therefore not officially ranked by CDFW (2024a) or the County (County of San Diego 2010a).

Coast Live Oak Woodland (71160)

Coast Live Oak Woodlands are evergreen woodlands dominated by coast live oaks that reach 10–25 meters tall and have a canopy cover greater than 50%. The understory species range from condensed woody subshrubs to patchy herbaceous cover and can also contain grassland. (Oberbauer et al. 2008). SWCA categorized coast live oak stands with this broad term if they met the canopy cover requirement and did not have recent evidence of disturbance. Within the survey area, a coast live oak woodland is located south of Jewel Valley Road outside of the project site. Coast live oak woodland was mapped according to Section 3.5.5 of the County guidelines (County of San Diego 2010b).

The coast live oak woodland alliance has a rank of G5S4 in CDFW (2024a), which means it is categorized as secure on a global scale and apparently secure on a state scale. In addition, this community is recognized as special-status by the County (County of San Diego 2010a).

Alkali Marsh (52300)

Alkali marshes consist of standing water or saturated soil present during most of the year or all year long. These marshes are somewhat salty due to the high evaporation versus input of fresh water and are found below 1,000 feet amsl (Oberbauer et al. 2008). There was only one alkali marsh found between Jewel Valley Road and the SD&AE Railway between two existing bare ground access roads outside of the project site. Characteristic species observed included cattail species (*Typha* spp.), rush species (*Juncus* spp.), sedge species (*Carex* spp.), yerba mansa (*Anemopsis californica*).

The alkali marsh alliance is not officially ranked by CDFW (2024a). However, this community is recognized as special-status by the County (2010a).

2.2.1.5 Flora

In total, 171 vascular plant taxa, consisting of 151 native taxa (88%) and 20 nonnative taxa (12%), have been documented on-site during initial surveys and spring rare plant surveys. Common species documented within each habitat are noted in Section 2.2.1.2 of the Biological Resources Report. A cumulative list of all plant species observed on-site is provided in Appendix C of the Biological Resources Report.

2.2.1.6 Fauna

Scrub, chaparral, grassland, woodland, and wetland habitats on-site provide foraging and nesting habitat for migratory and resident bird species and other wildlife. Large mammal use of the project site was documented, as mule deer (*Odocoileus hemionus*) scat was commonly observed throughout on-site habitats.

The County defines raptor foraging habitat as land that is a minimum of 5 acres (not limited to project boundaries) of fallow or open areas with any evidence of foraging potential (e.g., burrows, raptor nests). The project site meets this definition of raptor foraging habitat.

In total, 82 wildlife taxa (25 birds, five mammals, four reptiles, and 48 invertebrates), all of which are native, have been observed to date during field surveys, conducted primarily by SWCA and supplemented by protocol Quino checkerspot butterfly (QCB) surveys conducted by Rocks Biological Consulting (RBC). Additional species will be added as surveys continue. A cumulative list of all animal species observed on-site is provided in Appendix D of the Biological Resources Report.

2.2.1.7 Special-status Plant Species

A list of special-status plant species evaluated for potential to occur on-site is provided in Appendix E of the Biological Resources Report. There is no USFWS-designated critical habitat for plant species on-site (USFWS 2024a, 2024b). Special-status plants are those taxa in one or more of the following categories:

- Taxa listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA; 50 Code of Federal Regulations [CFR] 17.12 and various notices in the *Federal Register* [proposed species]).
- Taxa that are candidates for possible future listing as threatened or endangered under the ESA (67 *Federal Register* 40657, June 13, 2002).

- Taxa listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 California Code of Regulations 670.5).
- Taxa that meet the definitions of rare or endangered under the CEQA (State CEQA Guidelines Section 15380).
- Taxa listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.).
- Taxa with a California Rare Plant Rank (CRPR) of 1 through 4
- Taxa included on the County of San Diego Sensitive Plant List, List A, B, C, or D

Nine sensitive plant species have been observed on the project site: Jacumba milkvetch, long-spined spineflower, Tecate tarplant, sticky geraea, desert beauty, Payson's jewelflower, Colorado desert larkspur, low bush monkeyflower, and pride-of-California. Each of these species is discussed below. County of San Diego List A and B species are discussed separately from List C and D species because they have different guidelines for determining significance (see Section 2.2.2.3).

Critical Habitat

There is no USFWS-designated critical habitat for plant species on-site (USFWS 2024a, 2024b).

County List A and B Species

Jacumba Milkvetch (*Astragalus douglasii* var. *perstrictus*)

Jacumba milkvetch is a CRPR 1B.2 and County List A species in the pea family (Fabaceae). This perennial herb blooms from April to June and grows in chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, and valley and foothill grassland between 2,900 and 4,500 feet amsl. Approximately 1,351 Jacumba milkvetch individuals were observed on-site in granitic northern mixed chaparral, redshank chaparral, chamise chaparral, urban/developed, and field/pasture during spring rare plant surveys.

Long-spined Spineflower (*Chorizanthe polygonoides* var. *longispina*)

Long-spined spineflower, also known as knotweed spineflower, is a CRPR 1B.2 and County List A annual herb in the buckwheat family (Polygonaceae) with a blooming period of April to July. It occurs from the coast inland in San Diego County, in northern Baja California, Mexico, and also in chaparral, coastal scrub, meadows, seeps, valley and foothill grasslands, and vernal pools up to approximately 5,200 feet amsl. Approximately 595 individuals were observed on-site within chamise chaparral during spring rare plant surveys.

Tecate Tarplant (*Deinandra floribunda*)

Tecate tarplant is a CRPR 1B.2 and a County List A species. A member of the sunflower (Asteraceae) family, this species blooms from August through October in chaparral and coastal scrub habitats. Tecate tarplant is an annual herb that occurs at elevations of 200 to 4,000 feet amsl. In total, 1,171 individuals were observed within the survey area in redshank chaparral, granitic northern mixed chaparral, montane buckwheat scrub, big sagebrush scrub, field/pasture, and southern riparian scrub during summer rare plant surveys.

Sticky Geraea (*Geraea viscida*)

Sticky geraea is a CRPR 2.3 (CNPS 2024c) and a County List B species. A member of the sunflower (Asteraceae) family, this perennial herb blooms from May through June in chaparral habitats and occurs at elevations between 1,400 and 5,600 feet amsl. Approximately 2,536 sticky geraea individuals were observed on-site within granitic northern mixed chaparral, redshank chaparral, chamise chaparral, and montane buckwheat scrub during spring rare plant surveys.

Desert Beauty (*Linanthus bellus*)

Desert beauty is a CRPR 2.3 and a County List B species. A member of the phlox (Polemoniaceae) family, this annual herb blooms from April through May in chaparral habitats. This species typically occurs at elevations of 3,200 to 5,500 feet amsl. Approximately 2,105 desert beauty individuals were observed on-site within openings in redshank chaparral, granitic northern mixed chaparral, and chamise chaparral during spring rare plant surveys.

County List C and D Species

Payson's Jewelflower (*Caulanthus simulans*)

Payson's jewelflower is a CRPR 4.2 and County List D species in the mustard family (Brassicaceae). This annual herb typically blooms between March and May but may bloom as early as February and as late as June. This species typically inhabits sandy, granitic soils in burned areas, disturbed sites such as streambeds, and rocky, steep slopes within chaparral and coastal scrub at elevations between 300 and 7,300 feet amsl. Approximately six Payson's jewelflower individuals were observed on-site within redshank chaparral.

Colorado Desert Larkspur (*Delphinium parishii* subsp. *subglobosum*)

Colorado Desert larkspur is a CRPR 4.3 and a County List D species. A member of the buttercup family (Ranunculaceae), this perennial herb blooms from March through June in chaparral, cismontane woodland, pinyon and juniper woodland, and Sonoran desert scrub habitats. The species occurs at elevations between 2,000 feet and 6,000 feet amsl. Approximately 301 Colorado desert larkspur individuals were observed on-site within granitic northern mixed chaparral during spring rare plant surveys.

Low Bush Monkeyflower (*Diplacus aridus*)

Low bush monkeyflower is a CRPR 4.3 and a County List D species. Desert monkeyflower is a perennial evergreen shrub that blooms from April through July in rocky chaparral and Sonoran desert scrub at elevations of 2,400 to 4,000 feet amsl. Approximately eight low bush monkeyflower individuals were observed on-site growing on granitic outcrops within redshank chaparral during spring rare plant surveys.

Pride-of-California (*Lathyrus splendens*)

Pride-of-California is a CRPR 4.3 and a County List D species. A member of the Fabaceae family, this perennial herb blooms from March to June at elevations between 600 and 5,000 feet amsl. Approximately 31 pride-of-California individuals were observed on-site within redshank chaparral and chamise chaparral during spring rare plant surveys.

Oak Tree Survey

To protect the sensitive root systems of oak woodland, a 50-foot oak root protection zone, measured outward from the outside edge of the canopy, was mapped, as required by the County's report format and

content requirements (County of San Diego 2010b). The edge of the canopy defines the woodland boundary. All mature oak trees (measuring 15 centimeters [cm] [6 inches] diameter at breast height [DBH] or greater), identified within 100 feet of established oak woodland were mapped as part of oak woodland. The oak root protection zone typically consists of other habitat and is not part of the oak woodland. However, impacts from ground disturbance and compaction in the oak root protection zone would result in proportional impacts to the oak woodland. For example, 1 acre of impact to the oak root protection zone would equal 1 acre of impact to the oak woodland. Therefore, where a project results in ground disturbance or compaction within the mapped oak woodland or oak root protection zone, the impact must be mitigated at a 3:1 ratio with oak woodland habitat. For this project, individual oaks with a DBH of 15 centimeters (cm) or greater were conservatively mapped as part of oak woodland even if they were more than 100 feet from the nearest oak woodland.

In total, 200 individual oaks were mapped within the survey area, mostly in the far south end and just north and south of Jewel Valley Road (Figure 2.2-4). Of those 200 oaks, including the oak root protection zone, 96 individuals fell completely outside of Phase I or Phase II of the project site, nine individuals had avoidance buffers that partially fell within Phase I, 51 individuals had avoidance buffers partially within Phase II, no individuals were within Phase I, and 38 individuals were in Phase II. The oaks observed on-site typically had large crowns and high potential to provide nesting habitat for migratory bird species.

2.2.1.8 Special-status Animal Species

A list of special-status animal species evaluated for potential to occur on-site is provided in Appendix G of the Biological Resources Report. There is no USFWS-designated critical habitat for animal species on-site (USFWS 2024a, 2024b). Special-status animals are those taxa in one or more of the following categories:

- Taxa listed or proposed for listing as threatened or endangered under the federal ESA 50 CFR 17.11 and various notices in the *Federal Register* [proposed species]).
- Taxa that are candidates for possible future listing as threatened or endangered under the ESA (67 *Federal Register* 40657, June 13, 2002).
- Taxa listed or proposed for listing by the State of California as threatened or endangered under the CESA (14 California Code of Regulations 670.5).
- Taxa that meet the definitions of rare or endangered under the CEQA (State CEQA Guidelines Section 15380).
- Taxa fully protected in California (California Fish and Game Code Sections 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]).
- Taxa listed on the California Special Animals List such as Species of Special Concern (SSC), Fully Protected, and for invertebrates, all species regardless of the reason for inclusion (CDFW 2024b).
- Taxa included on the County of San Diego Sensitive Animal List, Group 1 or 2

Fourteen sensitive wildlife species have been detected on the project site: Cooper's hawk, sharp-shinned hawk, Bell's sage sparrow, turkey vulture, California horned lark, western bluebird, San Diego black-tailed jackrabbit, San Diego desert woodrat, mule deer, mountain lion, Southern California legless lizard, coastal whiptail, coast horned lizard, and western spadefoot. Each of these species is discussed below, as well as wildlife species with high potential to occur on-site. County of San Diego Group 1 and Group 2 species are discussed separately because they have different guidelines for determining significance (see Section 2.2.2.2).

Critical Habitat

There is no USFWS-designated critical habitat for animal species on-site (USFWS 2024a, 2024b).

County Group 1 Species

Birds

Cooper's hawk (Accipiter cooperi)

The Cooper's hawk is a CDFW Watch List (WL) and County Group 1 species. Cooper's hawks are found throughout California in wooded areas inhabiting live oak, riparian, deciduous, or other forest habitats near water. Nesting and foraging usually occurs near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Cooper's hawks use patchy woodlands and edges with snags for perching while they are hunting for prey such as small birds, small mammals, reptiles, and amphibians within broken woodland and habitat edges. Three Cooper's hawk individuals were incidentally detected on-site in granitic northern mixed chaparral and redshank chaparral. Suitable nesting habitat on-site includes red shank chaparral and coast live oak woodland. All on-site habitats could be potentially suitable foraging habitat for this species.

Sharp-shinned hawk (Accipiter striatus)

The sharp-shinned hawk is a County Group 1 species. During migration, they prefer open habitats or high in the sky, migrating along ridgelines but breed in deep forests. During the nonbreeding season they hunt small birds and mammals along forest edges and sometimes at backyard bird feeders. In San Diego, sharp-shinned hawks are generally present from mid-September to the first week of April, and there is little evidence that it breeds here (Unitt et al. 2004). All on-site habitats could be potentially suitable foraging habitat for this species. One sharp-shinned hawk individual was incidentally detected on-site in redshank chaparral.

Southern California rufous-crowned sparrow (Aimophila ruficeps canescens)

The Southern California rufous-crowned sparrow is a CDFW WL and County Group 1 Species. The Southern California rufous-crowned sparrow is a resident of the southwest region of the United States, this sparrow is considered a resident throughout its range. Occupying moderate to steep hillsides that are rocky, grassy, or covered by coastal sage scrub or chaparral. It is a secretive species, seeking cover in shrubs, rocks, grass, and forb patches. The species often occurs near the edges of desert scrub and chaparral associations, but usually does not occur within these associations. This species avoids flat valley floors and floodplains, impenetrable chaparral, woodland, and developed areas. This species has not been detected on-site but is documented in the project's vicinity (eBird 2024) and has high potential to occur in on-site granitic northern mixed chaparral, redshank chaparral, granitic chamise chaparral, montane buckwheat scrub, and big sagebrush scrub.

Bell's sage sparrow (Amphispiza belli belli)

The Bell's sage sparrow is a USFWS Bird of Conservation Concern (BCC), CDFW WL, and County Group 1 species. This species is uncommon to fairly common in dry chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and lower foothills of the mountains within its range. On-site granitic northern mixed chaparral, redshank chaparral, granitic chamise chaparral, montane buckwheat scrub, and big sagebrush scrub would be suitable habitat for this species. Two Bell's sage sparrow individuals were incidentally detected on-site in granitic northern mixed chaparral.

Golden eagle (Aquila chrysaetos)

The golden eagle is a USFWS BCC, CDFW WL, CDFW Fully Protected, and County Group 1 species. Foraging habitat for this species is very broad and in California includes open habitats with scrub, grasslands, desert communities, and agricultural areas. This species nests on cliffs within canyons and escarpments and in large trees (generally occurring in open habitats) and is primarily restricted to rugged, mountainous country. Most nests are located on cliffs or trees near forest edges or in small stands near open fields. Nest locations tend to be more closely associated with topographic heterogeneity than with a particular vegetation type. Nest building can occur almost any time during the year but breeding typically begins in January with nest building and egg laying occurring in February to March. In San Diego, approximately 80% of nests are built on cliff ledges and 20% occur in trees on steep slopes (Unitt et al. 2004). This species has not been detected on-site but is documented in the vicinity of the project site and has high potential to occur on-site due to suitable foraging habitat on-site consisting of granitic northern mixed chaparral, granitic chamise chaparral, montane buckwheat scrub, field/pasture, big sagebrush scrub, disturbed, open coast live oak woodland, and non-native grassland. Additionally, oak trees within coast live oak woodland could serve as marginal nesting habitat.

Long-eared owl (Asio otus)

The long-eared owl is a CDFW SSC. The long-eared owl forages in a combination of grassland and other open country. They nest and roost in dense tall shrubs or trees. Pine stands and windbreaks or shelterbelts are favored winter roost habitat. In San Diego County, this species favors oak woodlands and riparian forests with a closed canopy in proximity to open habitats for foraging. This species has high potential to occur on-site because it is documented in the vicinity of the project (CDFW 2024b; eBird 2024) and on-site montane buckwheat scrub, field/pasture, disturbed, open coast live oak woodland, and non-native grassland are suitable for foraging and open coast live oak woodland is marginally suitable for nesting.

Red-shouldered hawk (Buteo lineatus)

The red-shouldered hawk is a County Group 1 species. In California, it is a yearlong resident along the coast, in the Central Valley woodlands west of the southern deserts, and occasionally in the western Sierra Nevada foothills. It nests in dense riparian areas below 5,000 feet amsl, and hunts in and along the edges of swamps, marshes, and wet meadows. In San Diego, oak trees are also used for nesting. This species has high potential to occur on-site because it is a relatively widespread species throughout San Diego County, open coast live oak woodland would be suitable for nesting, and montane buckwheat scrub, field/pasture, disturbed, open coast live oak woodland, and nonnative grassland are suitable for foraging.

Turkey vulture (Cathartes aura)

The turkey vulture is a County Group 1 species. In California, it is common during the breeding season and is a yearlong resident west of the Sierra Nevada, especially in coastal areas. It uses a variety of habitats while foraging on both wild and domestic carrion and prefers open stages of most habitats. Nest locations tend to be difficult to find and are usually located in a crevice among granite boulders. This species was observed flying over the project site. Suitable foraging habitat includes all habitats on-site and nesting could potentially occur in the rock outcrops on-site.

Northern harrier (Circus cyaneus)

The northern harrier is a CDFW SSC and a County Group 1 species. Northern harriers are found in open habitats, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, estuaries, floodplains, and marshes. Nesting areas are associated with marshes, pastures, grasslands, prairies,

croplands, desert shrub steppe, and riparian woodland. This species has high potential to occur on-site because it is documented in the project vicinity (CDFW 2024b; eBird 2024) and on-site nonnative grassland and field/pasture would be suitable nesting and foraging habitat for this species.

White-tailed kite (Elanus leucurus)

The white-tailed kite is a County Group 1 species. This species is found in savannas, open woodlands, marshes, desert grasslands, partially cleared lands, and cultivated fields. It tends to avoid heavily grazed areas. In San Diego, this species is widespread over the coastal slope and prefers riparian woodland, oak groves, or sycamore groves adjacent to grassland. This species has high potential to occur on-site because it is documented in the vicinity of the project (eBird 2024; Unitt 2004), the on-site oak woodland would be suitable for nesting, and on-site field/pasture and non-native grassland would be suitable for foraging.

Prairie falcon (Falco mexicanus)

The prairie falcon is a USFWS BCC, CDFW WL, and County Group 1 species. A permanent resident found throughout most of California. It prefers chaparral, desert grasslands, and creosote bush habitats for foraging, and nests on cliffs or bluffs near these open habitats. This species has high potential to occur on-site because it is documented in the project vicinity (CDFW 2024b; eBird 2024) and the entire site is suitable for foraging, with the site's rocky hills offering potentially suitable nest sites.

Loggerhead shrike (Lanius ludovicianus)

The loggerhead shrike is a USFWS BCC, CDFW SSC, and County Group 1 Species. Found in lowlands and foothills throughout California, and it remains in the southern portion of the state year-round. Preferred habitats for the loggerhead shrike are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or human-made structures (such as the top of chain-link fences or barbed wire) that provide means to skewer prey items. The species occurs most frequently in riparian areas along the woodland edge, grasslands with sufficient perch and butcher sites, scrublands, and open-canopied woodlands, although they can be quite common in agricultural and grazing areas; and they can sometimes be found in mowed roadsides, cemeteries, and golf courses, although they occur rarely in heavily urbanized areas. Loggerhead shrikes build nests in stable shrubs or trees requiring dense foliage for well-concealed nests. This species has high potential to occur on-site because it is documented in the project's vicinity (eBird 2024) and the entire site is suitable for foraging and nesting.

Lewis' woodpecker (Melanerpes lewis)

The Lewis' woodpecker is a County Group 1 species. Frequently breeds in open ponderosa pine forests and burned forests with a high density of standing dead trees (snags). They also breed in woodlands near streams, oak woodlands, orchards, and pinyon-juniper woodlands. During the nonbreeding season, they move about in nomadic fashion stopping off in cottonwoods near streams, orchards, and oak woodlands with plentiful resources. In San Diego, this species is an uncommon winter visitor to the mountains and foothills in areas with large trees and grassland. This species has high potential to occur on-site because it has been documented in the project's vicinity (eBird 2024; Unitt 2004) and the on-site coast live oak woodland, non-native grassland, and field/pasture would be suitable for foraging.

Invertebrates

Quino checkerspot butterfly (Euphydryas editha quino)

QCB is a federally endangered and County Group 1 species. This species is found on sparsely vegetated hilltops, ridgelines, and occasionally on rocky outcrops in open chaparral and coastal sage scrub habitat (typically less than 3,000 feet amsl). This species requires host plants within these vegetation communities for feeding and reproduction. The primary larval host plant is dwarf plantain (*Plantago erecta*); however, several other species have been documented as important larval host plants, including desert plantain, sometimes called woolly plantain (*P. patagonica*); thread-leaved bird's beak (*Cordylanthus rigidus*); white snapdragon (*Antirrhinum coulterianum*); owl's clover (*Castilleja exserta*); and Chinese houses (*Collinsia* spp.). A complete series of protocol surveys was conducted on-site; larval host plants consisting of owl's clover, Chinese houses, and California plantain were documented by RBC biologists, but QCB was not detected. The 2022 and 2024 QCB protocol survey reports are provided as Appendix H.1 and H.2, respectively, of the Biological Resources Report (Appendix D).

County Group 2 Species; Other

Birds

California horned lark (Eremophila alpestris actia)

The California horned lark is a CDFW WL, County Group 2 species. Occurs in grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above the treeline. This species prefers open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, and fallow grain fields, and it nests on the ground in a hollow scrape. One California horned lark individual was incidentally detected on-site in an open area of big sagebrush scrub.

Mountain quail (Oreortyx pictus eremophilus)

The mountain quail is a County Group 2 species. Mountain quail are found in brushy habitats along streams and rivers and in coastal and shrub steppe regions. They frequent thickets that include plants such as willow, manzanita, chamise (greasewood), blue elderberry, California lilac (soapbush), big sagebrush, bitterbrush, and buckthorn species such as deer brush. In San Diego, this species is relatively common in the mountains and higher foothills where dense chaparral occurs. It also quickly recolonizes burned chaparral. This species has high potential to occur on-site because on-site chaparral is suitable for foraging and nesting, and it is documented in the project's vicinity (eBird 2024; Unitt 2004).

Western bluebird (Sialia mexicana)

The Western bluebird is a County Group 2 species. They are common resident birds in San Diego County, where they prefer montane coniferous and oak woodlands. This species was observed on-site.

Reptiles

Southern California legless lizard (Anniella stebbinsi)

The Southern California legless lizard is a CDFW SSC and County Group 2 species. This species occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. This species can be found under surface objects

such as rocks, boards, driftwood, and logs, and is sometimes found in suburban gardens in Southern California. Two Southern California legless lizard individuals were incidentally observed on-site in granitic northern mixed chaparral.

California glossy snake (Arizona elegans occidentalis)

The California glossy snake is a CDFW SSC and is not included on the County of San Diego Sensitive Animal List (County of San Diego 2010a). It inhabits arid scrub, rocky washes, grasslands, chaparral. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing. This species has high potential to occur on-site because most of the project site would be suitable habitat and there are multiple occurrences in the vicinity of the site (CDFW 2024b; iNaturalist 2024).

Coastal whiptail (Aspidoscelis tigris stejnegeri)

The coastal whiptail is a County Group 2 species. Found in a variety of habitats, primarily in areas where plants are sparse and there are open areas for running. The species ranges from deserts to montane pine forests where it prefers warmer and drier areas. The species is also found in woodland and streamside growth, and it avoids dense grassland and thick shrub growth. Six coastal whiptail individuals were incidentally observed on-site in bare ground adjacent to granitic northern mixed chaparral and redshank chaparral, and open coast live oak woodland.

Rosy boa (Charina trivirgata)

The rosy boa is a County Group 2 species. It inhabits rocky shrubland and desert habitats, and is attracted to oases and streams, but does not require permanent water. In the desert it occurs on scrub flats with good cover. The species is known in a variety of desert and semi-desert habitats and may occur in oak woodlands intergrading with scrub or chaparral habitats, but is absent from grasslands. This species has high potential to occur on-site because the site supports suitable habitat for this species, there are recent occurrences documented near the project site (iNaturalist 2024), and rosy boas are rarely active during the day and would likely not be incidentally detectable during surveys.

Red-diamond rattlesnake (Crotalus ruber)

The red-diamond rattlesnake is a CDFW SSC and County Group 2 species. Found in a variety of habitats from the coast to the deserts, from San Bernardino County into Baja California, Mexico (below 5,000 feet amsl). It commonly occurs in rocky areas within coastal sage scrub, chaparral, juniper woodlands, and desert habitats, but can also be found in areas devoid of rocks. This species has high potential to occur on-site because most of the habitats on-site are suitable for this species and the project site is within this species' range (San Diego Natural History Museum 2024).

San Diego ringneck snake (Diadophis punctatus similis)

The San Diego ringneck snake is a County Group 2 species. Found in moist habitats, including woodlands, hardwood and conifer forest, grassland, sage scrub, chaparral, croplands/hedgerows, and gardens. In arid regions, they occur in forests, woodlands, sage scrub, chaparral, and riparian corridors. This species has high potential to occur on-site because suitable chaparral and woodland habitat occurs on-site and there is a recent occurrence documented near the project site (iNaturalist 2024).

Coast horned lizard (Phrynosoma blainvillii)

The coast horned lizard is a CDFW SSC and County Group 2 species. It has historically been found in California extending inland into the Sierra Nevada and along the coast, from Baja to the Bay Area. Its

known inland extent to the north is Shasta Reservoir. It is often associated with coastal sage scrub, especially areas of level to gently sloping ground with well-drained loose or sandy soil, but it can also be found in annual grasslands, chaparral, oak woodland, riparian woodland, and coniferous forest between 30 and 7,030 feet amsl. This reptile typically avoids dense vegetation, preferring 20% to 40% bare ground in its habitat. Up to 90% of its diet consists of native harvester ants (*Pogonomyrmex* spp.). Nine coast horned lizard individuals were incidentally observed on-site in granitic northern mixed chaparral, montane buckwheat scrub, chamise chaparral, field/pasture, and redshank chaparral.

Amphibians

Western spadefoot (Spea hammondii)

The western spadefoot is classified as a Federally Proposed Threatened Species, CDFW SSC, and County Group 2 species. This species is endemic to California and northern Baja California, with its range extending from near Redding southward through the Great Valley and its associated foothills, across the South Coast Ranges, and into coastal Southern California south of the Transverse Ranges and west of the Peninsular Ranges, extending into northwestern Baja California. It favors open habitats with sandy or gravelly substrates, including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountainous areas. Successful breeding requires rainpools that are devoid of bullfrogs, fish, or crayfish. Although the species was not detected on-site, USFWS and the U.S. Geological Survey (USGS) indicate that a historic breeding pool supporting western spadefoot has been recorded in the southern portion of the project site, with additional observations documented in proximity to the project.

Mammals

Pallid bat (Antrozous pallidus)

The pallid bat is a CDFW SSC and San Diego Group 2 species. This species is most common in open, dry habitats such as deserts, grasslands, shrublands, woodlands, and forests with rocky areas for roosting that protect individuals from high temperatures. This species is very sensitive to disturbance of roosting sites. This species has high potential to occur on-site because much of the project site would be suitable foraging habitat for this species, there is potential for roosting on-site, there are California Natural Diversity Database (CNDDB) records in Jacumba and Campo (CDFW 2024c), and bats are unlikely to be detected incidentally during surveys.

Ringtail (Bassariscus astutus)

The ringtail is a CDFW Fully Protected and County Group 2 species. Typically occurs at elevations ranging from sea level to 4,500 feet amsl but may occur at elevations ranging from 6,500 to 9,500 feet amsl. Their primary habitat is oak, pinyon pine, and juniper woodlands, but they also occur in conifer forests, chaparral, desert, and dry tropical habitats if rocky outcroppings, canyons, boulder piles, or talus slopes are present. They are dependent on open water and usually do not occur more than 0.6 mile from a permanent water source. This species has high potential to occur on-site because the on-site freshwater pond and alkali marsh would provide suitable water sources for this species and the ringtail is a secretive, nocturnal species that would be unlikely to be detected incidentally during surveys.

Dulzura pocket mouse (Chaetodipus californicus femoralis)

The Dulzura pocket mouse is a CDFW SSC and County Group 2 species. It is associated with open habitat in coastal sage scrub, chaparral, oak woodland, and mixed conifer habitats up to 3,000 feet amsl. Small mammals are expected to be underrepresented in CNDDB data and are thus conservatively designated as

having high potential to occur on-site despite there being only one CNDDB occurrence from 1958 in the vicinity of the project (CDFW 2024b).

Northwestern San Diego pocket mouse (Chaetodipus fallax fallax) and pallid San Diego pocket mouse (C. f. pallidus)

Both the northwestern and pallid San Diego pocket mouse are CDFW SSC and County Group 2 taxa. Both subspecies prefer sandy, herbaceous areas, usually in association with rocks or coarse gravel. Northwestern San Diego pocket mouse occurs within coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County while pallid San Diego pocket mouse occurs in desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. These species have potential to occur in a variety of habitats in the project site, including coastal sagebrush scrub, chaparral, and non-native grassland where there are sandy soils. The project site is also generally located in the boundary zone between the ranges of the two subspecies. Small mammals are expected to be underrepresented in CNDDB data and are thus conservatively designated as having high potential to occur on-site despite the nearest occurrence of northwestern San Diego pocket mouse being 37 miles to the northwest and the nearest occurrence of pallid San Diego pocket mouse being over 9 miles east of the site.

Greater western mastiff bat (Eumops perotis californicus)

The greater western mastiff bat is a CDFW SSC and County Group 2 species. This species occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral, and roosts in crevices in cliff faces, high buildings, trees, and tunnels. This species has high potential to occur on-site because this species may forage throughout the project site and may roost in coast live oak woodland on-site. The project site is southeast of most CNDDB records, but bats are likely to be underrepresented in CNDDB data and are unlikely to be detected incidentally during surveys.

Western red bat (Lasiurus blossevillii)

The western red bat is a County Group 2 species. This species prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging. The western red bat roosts primarily in trees, 2 to 40 feet above ground, from sea level up through mixed conifer forests. This species has high potential to occur on-site because it may forage throughout the project site and may roost in coast live oak woodland on-site. The project site is southeast of most CNDDB records, but bats are likely to be underrepresented in CNDDB data and are unlikely to be detected incidentally during surveys.

San Diego black-tailed jackrabbit (Lepus californicus bennettii)

San Diego black-tailed jackrabbit is a CDFW SSC and County Group 2 species. Jackrabbits typically are not found in high grass or dense brush where it is difficult for them to move quickly, and the openness of open scrub habitat likely is preferred over dense chaparral. Jackrabbits are common in grasslands that are overgrazed by cattle, and they are well adapted to using low-intensity agricultural habitats. Twelve San Diego black-tailed jackrabbit individuals were incidentally observed on-site in granitic northern mixed chaparral, bare ground adjacent to montane buckwheat scrub and chamise chaparral, and montane buckwheat scrub.

Small-footed myotis (Myotis ciliolabrum)

The small-footed myotis is a County Group 2 species. They are found in a wide range of habitats, but mostly inhabit arid wooded and brushy uplands near water and prefer open stands in forests and woodlands. Cliff faces, significant deviations in rock faces, old buildings, overpasses, caves, and mines are typically required

for roosting. The project site is southeast of most CNDDB records but has high potential to occur on-site because the on-site coast live oak woodland would be suitable for this species and drinking water is available from freshwater ponds on-site. Additionally, bats are unlikely to be detected incidentally during surveys and are expected to be underrepresented in CNDDB data.

Long-eared myotis (Myotis evotis)

The long-eared myotis is a County Group 2 species. This species is found in all brush, woodland, and forest habitats from sea level to about 9,000 feet amsl, but prefers coniferous woodlands and forests. Nursery colonies occur in buildings, crevices, spaces under bark, and snags. Caves are used primarily as night roosts. This species has high potential to occur on-site because this species may forage throughout the project site and may roost in coast live oak woodland on-site. The project site is southeast of most CNDDB records, but bats are likely to be underrepresented in CNDDB data and are unlikely to be detected incidentally during surveys.

San Diego desert woodrat (Neotoma lepida intermedia)

The San Diego desert woodrat is a CDFW SSC and County Group 2 species. Desert woodrats are found in a variety of shrub and desert habitats and are primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth. Moderate to dense canopy cover is preferred and this species is particularly abundant in rock outcrops, rocky cliffs, and slopes. The stick houses/middens of this species were observed throughout the project site near rock outcrops.

Mule deer (Odocoileus hemionus)

The mule deer is a County Group 2 species. It occurs throughout most of California, except in deserts and intensively farmed areas without cover. Throughout its range, mule deer uses coniferous and deciduous forests, riparian habitats, desert shrub, coastal scrub, chaparral, and grasslands with shrubs. It is often associated with successional vegetation, especially near agricultural lands. Deer scat was commonly observed throughout brushy habitats on-site.

Southern grasshopper mouse (Onychomys torridus ramona)

The southern grasshopper mouse is a County Group 2 species and a CDFW SSC. This species inhabits desert areas, especially scrub habitats with friable soils for digging, and prefers low to moderate shrub cover. This species nests in small burrows dug into the ground, often which have been deserted by other rodents or were taken by the grasshopper mouse through force. This species has high potential to occur on-site because on-site montane buckwheat scrub would be suitable for this species and there are multiple occurrences documented in the project vicinity (CDFW 2024b).

Mountain lion (Puma concolor)

The mountain lion is a specially protected mammal under California Fish and Game Code Section 4800 and a County Group 2 species. Mountain lions are most abundant in habitats that support their primary prey—mule deer—and their seasonal movements tend to follow migrating deer herds. They prefer habitats that provide cover, such as thickets in brush and timber in woodland vegetation. They also use caves and other natural cavities for cover and breeding. They require extensive areas of riparian vegetation and brushy stages of various habitats, with interspersions of irregular terrain, rocky outcrops, and tree-brush edges. Fresh paw prints and scat were observed around on-site alkali marsh and the south half of the project site.

Invertebrates

Crotch's bumblebee (Bombus crotchii)

The Crotch's bumblebee is a state Candidate Species. Crotch's bumblebee can be found in a variety of habitats including open grasslands, shrublands, chaparral, desert margins including Joshua tree and creosote scrub, and semi-urban settings. It is near endemic to California, with only a few records from Nevada and Mexico. The project falls within the mapped Crotch's bumblebee range. Preferred food plants include milkweed (*Asclepias* spp.) and other species such as sage (*Salvia* spp.), lupine (*Lupinus* spp.), vetch (*Vicia* spp.), deerweed (*Acmispon* sp.), phacelia (*Phacelia* sp.), and poppy (*Eschscholzia* sp.). Habitat suitability assessments were performed to evaluate the project site's potential to support this species. Protocol surveys were not conducted.

Monarch butterfly (Danaus plexippus)

The monarch butterfly is a federal Candidate Species and County Group 2 species. Monarchs are found in a variety of habitats including conifer forests, grasslands, old fields, dune habitat, scrublands, chaparral, orchards, woodlands, and herbaceous and shrub wetlands. Host plants are milkweeds. This species has high potential to occur on-site, although milkweed was not observed on-site, there are suitable nectar plants to support foraging during migration.

2.2.1.9 Wetlands/Jurisdictional Waters

Wetlands, open water features, and drainages in general are considered special-status biological resources and may be under the jurisdiction of the U.S. Army Corps of Engineers (USACE) as wetlands or non-wetland waters of the United States (WOTUS); CDFW lakes, streambeds, or associated riparian habitat; the California Water Quality Control Board and its Regional Water Quality Control Boards (RWQCB) as wetlands or non-wetland waters of the state (WOS); or the County of San Diego as a Resource Protection Ordinance (RPO) wetland.

The County's RPO (County of San Diego 2012) identifies environmental resources, including wetlands, present within the County, and provides measures to preserve these resources. The RPO defines wetlands as lands that have one or more of the following attributes: 1) lands that periodically support a predominance of hydrophytes (plants whose habitat is water or very wet places); 2) lands in which the substratum is predominantly undrained hydric soil; or 3) lands where an ephemeral or perennial stream is present and whose substratum is predominately non-soil, and where such lands contribute substantially to the biological functions or values of wetlands in the drainage system. County-regulated wetlands were identified where a predominance of hydrophytic vegetation was observed. State wetlands were present where an area supported three wetlands indicators (i.e., hydrology, hydric soils, or hydrophytic vegetation).

RPO Determination

The County of San Diego RPO provides the following definition of wetlands (County of San Diego 2012):

(1) Lands having one or more of the following attributes are "wetlands":

(aa) At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);

(bb) The substratum is predominantly undrained hydric soil; or

(cc) An ephemeral or perennial stream is present, whose substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

(2) Notwithstanding paragraph (1) above, the following shall not be considered "Wetlands":

(aa) Lands which have attribute(s) specified in paragraph (1) solely due to man-made structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of Planning and Development Services determines that they:

(i) Have negligible biological function or value as wetlands;

(ii) Are small and geographically isolated from other wetland systems;

(iii) Are not vernal pools; and,

(iv) Do not have substantial or locally important populations of wetland dependent sensitive species.

(bb) Lands that have been degraded by past legal land disturbance activities, to the point that they meet the following criteria as determined by the Director of Planning and Development Services:

(i) Have negligible biological function or value as wetlands even if restored to the extent feasible; and,

(ii) Do not have substantial or locally important populations of wetland dependent sensitive species.

All drainage features within the survey area support a predominantly soil substratum and support non-relatively permanent flow. A single wetland meeting the County's RPO wetland definition was identified within the survey area but outside the project site. The wetland consists of a hillside freshwater seep (see Figures A4d, A7d, and A8k in Appendix I of the Biological Resources Report). Groundwater rises into a shallow depression which supports a dominance of hydrophytic species. No additional surface hydrology inputs were identified. Flow is conveyed away from the wetland in a southerly direction vial two short-lived discontinuous drainage features which dissipate into overland flow outside of the survey area.

Two additional areas exhibiting RPO wetland parameters were observed within the survey area; however, they correspond with human-made basins which may be considered exempt from the County's RPO. Both basins are in the southern portion of the project site. One basin supporting potential wetland characteristics was observed outside of and partially within the survey area but completely outside of the project site. The basin receives flow from an off-site drainage. Historical aerial imagery suggests that the construction of the basin occurred sometime between 1953 and 1989 (University of California, Santa Barbara 2024). This basin supports open water, potential hydric soils, and a narrow margin of hydrophytic vegetation. During overflow periods, the northeast corner of the basin is breached, and flow is conveyed to a second catchment basin via a drainage. This second basin is entirely within the project site and supports a narrow area (0.02 acre) of hydric soils. The basin abuts a berm supporting a dirt access road which functionally creates a terminus for the flow of both basins. Although hydric soils were observed, the basin is dominated by invasive upland mustards and annual grasses. No other hydrology indicators were observed. Due to the anthropogenic origin of these basins that meet criteria (2)(aa)(i–iv), these basins are not RPO wetlands.

Fifty-two drainages were observed within the project site. An additional 15 drainages were observed outside the project site but within the survey area. These drainages do not support a predominance of hydrophytic vegetation and consist primarily of unvegetated mineral soils. Drainages on-site are largely discontinuous within the project site and do not provide hydrologic connectivity within wetland complexes. Substrates within the drainages do not support hydric soils and do not support substratum that is "predominately non-

soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system." Therefore, ephemeral drainages within the project site do not meet the definition of an RPO wetland.

USACE/CDFW/RWQCB Determination

Sixty-seven potentially jurisdictional drainage features, five freshwater ponds—three of which are potentially jurisdictional—and one potentially jurisdictional freshwater seep were observed within the survey area. Of these potentially jurisdictional resources, 15 drainages, two freshwater ponds, and the freshwater seep are entirely outside of the project site. Impacts to the remaining jurisdictional features are anticipated to result from project-related activities.

All features exhibiting an ordinary high-water mark (OHWM) were determined to convey potentially jurisdictional WOS along with all observed wetlands (wetland waters of the State [WWOS]). WWOS were identified present in all areas exhibiting wetland hydrology, a dominance of hydrophytic vegetation, and the presence of hydric soils, or in areas where one of these indicators was problematic but presumed present following USACE's guidance for determining problematic wetlands. Several of these features reached a discernible terminus within the survey area, while other conveyed flow away from the survey area. Due to a lack of evidence of relatively permanent flow and the discontinuity of most drainages, WOTUS and adjacent wetland WOTUS (WWOUS) were determined absent from the survey area. For features that convey flow away from the survey area, their terminus could not be ascertained in the field, but these appear to dissipate as sheet-flow and loose aerial indicators of flow (Google Earth 2024) by the time they reach the adjacent residential developments approximately 500 meters east of the survey area. While the features conveying flow outside of the survey area may be isolated by impoundments or other anthropogenic structures downslope, hydrologic continuity was not examined at the necessary fine scale beyond the survey area. All wetlands were determined as being isolated within the survey area and were assumed to be WWOS. CDFW jurisdiction was determined to include all previously discussed features, as well as streambeds beyond the OHWM and associated riparian habitat.

Aquatic resources identified in the survey area largely support upland vegetation. Problematic vegetation in the form of upland annual grasses and mustards was associated with some defunct freshwater ponds. Hydrophytic vegetation was limited to a few sections within the survey area but outside the project site. Hydrophytic vegetation indicator status was determined by the USACE 2024 National Wetland Plant List (USACE 2024).

2.2.1.10 Habitat Connectivity and Wildlife Corridors

Wildlife corridors and habitat linkages are features that promote habitat connectivity. Wildlife corridors are typically discrete linear features within a landscape that are constrained by development or other non-habitat areas. Habitat linkages are networks of corridors through and between larger natural open space that facilitate movement of wildlife, thus providing long-term resilience of ecosystems against the detrimental effects of habitat fragmentation. Regional connection between high-quality open space habitats is critical to ongoing interchange of genetic material between populations, wildlife movement to escape natural disasters (fires, floods), colonization and expansion of populations, and plant propagation.

Per Attachment A of the County guidelines (County of San Diego 2010a), a corridor is "A specific route that is used for movement and migration of species. A corridor may be different from a 'Linkage' because it represents a smaller or narrower avenue for movement." A linkage is defined as "An area of land which supports or contributes to the long-term movement of wildlife and genetic exchange by providing live-in habitat that connects to other habitat areas."

The project site currently provides unrestricted wildlife movement for animals of all sizes within the property and serves as a linkage to surrounding undeveloped areas. The project site is not a corridor because wildlife movement is not constrained or directed through the area. In consultation with the USGS, the project includes a survey plan to analyze current wildlife movement and use that data to facilitate adequate passage for movement through and around the solar arrays.

2.2.2 Regulatory Setting

The following section summarizes federal, state, and local laws, regulations, and policies relating to plants, wildlife, and special-status habitats. Only those regulations potentially applicable to the proposed project are included herein.

2.2.2.1 Federal Regulations

Federal Endangered Species Act

The U.S. Congress passed the ESA in 1973 to protect endangered species and species threatened with extinction (federally listed species). The ESA operates in conjunction with the National Environmental Policy Act to help protect the ecosystems upon which endangered and threatened species depend.

Section 9 of the ESA prohibits the "take" of endangered or threatened wildlife species. The legal definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 United States Code [USC] 1532 [19]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 CFR 17.3). Harassment is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR 17.3). Actions that result in take can result in civil or criminal penalties.

The USFWS is authorized to issue permits under Sections 7 and 10 of the ESA. Section 7 mandates that all federal agencies consult with the USFWS for terrestrial species and/or National Marine Fisheries Service for marine species to ensure that federal agency actions do not jeopardize the continued existence of a listed species or adversely modify critical habitat for listed species. Any anticipated adverse effects require preparation of a biological assessment to determine potential effects of the project on listed species and critical habitat. If the project adversely affects a listed species or its habitat, the USFWS or National Marine Fisheries Service prepares a Biological Opinion. The Biological Opinion may recommend "reasonable and prudent alternatives" to the project to avoid jeopardizing or adversely modifying habitat including "take" limits.

The ESA defines critical habitat as habitat deemed essential to the survival of a federally listed species. The ESA requires the federal government to designate "critical habitat" for any species it lists under the ESA. Under Section 7, all federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its designated critical habitat. These complementary requirements apply only to federal agency actions, and the latter apply only to specifically designated habitat. A critical habitat designation does not set up a preserve or refuge, and applies only when federal funding, permits, or projects are involved (i.e., a federal nexus). Critical habitat requirements do not apply to activities on private land that do not involve a federal nexus.

Section 10 of the ESA includes provisions to authorize take that is incidental to, but not the purpose of, activities that are otherwise lawful. Under Section 10(a)(1)(B), the USFWS may issue permits (incidental take permits) for take of ESA-listed species if the take is incidental and does not jeopardize the survival

and recovery of the species. To obtain an incidental take permit, an applicant must submit a habitat conservation plan outlining steps to minimize and mitigate permitted take impacts to listed species.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits any person, unless permitted by regulations, to

> …pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatsoever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention … for the protection of migratory birds ... or any part, nest, or egg of any such bird. (16 USC 703)

The list of migratory birds includes nearly all bird species native to the United States. The statute was extended in 1974 to include parts of birds, as well as eggs and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the MBTA and excluded all nonnative species. Thus, it is illegal under the MBTA to directly kill or destroy a nest of nearly any native bird species.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) (16 USC 668–668c) prohibits anyone from "taking" bald eagles (*Haliaeetus leucocephalus*), including their parts, nests, or eggs, without a permit issued by the Secretary of the Interior. In 1962, Congress amended the act to cover golden eagles (*Aquila chrysaetos*). The BGEPA provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The 1962 amendments included a specific exemption for possession of eagles for religious purposes of Native American tribes; however, an Indian Religious Permit is required.

On November 10, 2009, the USFWS implemented new rules under the existing BGEPA, requiring USFWS permits for all activities that may disturb or incidentally take an eagle or its nest as a result of an otherwise legal activity. Under USFWS rules (16 USC 22.3; 72 Federal Register 31,132, June 5, 2007), "disturb" means "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits and causes injury, death, or nest abandonment.

Federal Water Pollution Control Act (Clean Water Act)

The Federal Water Pollution Control Act was first passed by Congress in 1948. It was later amended and became known as the Clean Water Act. The act establishes the basic structure for regulating discharges of pollutants into WOTUS. It gives the U.S. Environmental Protection Agency the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The act makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, without a permit under its provisions. Clean Water Act 404 permits are issued by the USACE for dredge/fill activities within wetlands or non-wetland WOTUS. Clean

Water Act 401 certifications are issued by the RWQCB for activities requiring a federal permit or license which may result in discharge of pollutants into WOTUS.

2.2.2.2 State Regulations

California Endangered Species Act

The CDFW administers the CESA, which prohibits the "taking" of listed species except as otherwise provided in state law. Section 86 of the California Fish and Game Code defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Under certain circumstances, the CESA applies these take prohibitions to species petitioned for listing (state candidates). Pursuant to the requirements of the CESA, state lead agencies (as defined under CEQA Public Resources Code Section 21067) are required to consult with the CDFW to ensure that any action or project is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat. Additionally, the CDFW encourages informal consultation on any proposed project that may impact a candidate species. The CESA requires the CDFW to maintain a list of threatened and endangered species. The CDFW also maintains a list of candidates for listing under the CESA and of SSC (or WL species).

California Environmental Quality Act

The CEQA was adopted in 1970 and applies to discretionary actions directly undertaken, financed, or permitted by state or local government lead agencies. CEQA requires that a project's effects on environmental resources must be analyzed and assessed using criteria determined by the lead agency. CEQA defines a rare species in a broader sense than the definitions of threatened, endangered, or California species of concern. Under this definition, the CDFW can request additional consideration of species not otherwise protected.

Fully Protected Species

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists protected amphibians and reptiles, and Section 3515 prohibits take of fully protected fish species. Eggs and nests of fully protected birds are protected under Section 3511. Migratory non-game birds are protected under Section 3800, and mammals are protected under Section 4700. Except for take related to scientific research, all take of fully protected species is prohibited.

Porter-Cologne Water Quality Control Act

This act provides for statewide coordination of water quality regulations. The act established the California State Water Resources Control Board as the statewide authority and nine separate RWQCBs to oversee water quality on a day-to-day basis at the regional/local level.

Nesting Birds, Raptors, and Migratory Bird Protection

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 provides protection for all birds of prey, including their eggs and nests. Take or possession of any migratory non-game bird as designated in the MBTA is prohibited by Section 3513 of the Fish and Game Code.

Natural Community Conservation Planning Act

The NCCP Act of 1991, amended in 2003, is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. The CDFW is the principal state agency implementing the NCCP program. NCCP plans developed in accordance with the act provide for comprehensive management and conservation of multiple wildlife species and identify and provide for the regional or area-wide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth.

California Oak Woodland Conservation Act

In 2001, the California Legislature passed the California Oak Woodland Conservation Act. This act established the Oak Woodland Conservation Program, administered by the Wildlife Conservation Board, which was designed to provide $10 million to help local jurisdictions protect and enhance their oak woodland resources. It offers landowners, conservation organizations, and cities and counties an opportunity to obtain funding for projects designed to conserve and restore California's oak woodlands. It authorizes the Wildlife Conservation Board to purchase oak woodland conservation easements and provide grants for land improvements and oak restoration efforts. While the program is statewide in nature, it is designed to address oak woodland issues on a regional priority basis. The program provides a mechanism to achieve sustainable ranching and farming operations, along with healthy oak woodlands.

California Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Section 1900-1913) directed the CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protected endangered and rare plants from take. The NPPA thus includes measures to preserve, protect, and enhance rare and endangered native plants.

The CESA has largely superseded the NPPA for all plants designated as endangered by the NPPA. The NPPA nevertheless provides limitations on take of rare and endangered species as follows: "...no person will import into this state, or take, possess, or sell within this State" any rare or endangered native plant, except in compliance with provisions of the CESA. Individual landowners are required to notify the CDFW at least 10 days in advance of changing land uses to allow the CDFW to salvage any rare or endangered native plant material.

California Desert Native Plants Act

The California Desert Native Plants Act protects non-listed California desert native plants from unlawful harvesting on public and private lands in the counties of Riverside, San Bernardino, Imperial, Inyo, Kern, Los Angeles, Mono, and San Diego (California Food and Agriculture Code, Sections 80001-80006, Division 23). A wide range of desert plants is protected under this act, including all species in the agave and cactus families. Harvest, transport, sale, or possession of specific native desert plants is prohibited without a valid permit or wood receipt and the required tags and seals. Species listed as rare, endangered, or threatened under federal or state law or regulations are excluded from this provision.

2.2.2.3 Local Regulations

San Diego County General Plan – Conservation and Open Space Element, and Community and Subregional Plans

The Conservation and Open Space Element of the *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan; County of San Diego 2011a) provides guiding principles for the conservation of biological resources. The Conservation and Open Space Element (County of San Diego 2011b) outlines the goals and policies pertaining to each type of open space, not all of which are for the preservation of biological resources and addresses County policies relating to water, vegetation, and wildlife habitat. The County's Resource Conservation Areas (RCAs) are described and delineated in each of the community and subregional plans. Each RCA has been designated as such for a purpose specific to that area. When a site is located within a mapped RCA, the project must comply with the relevant policies for that RCA (e.g., avoidance of oaks). See Section 3.1.6, Land Use and Planning of this EIR for a full list of applicable policies from the County's General Plan.

County of San Diego Zoning Ordinance

Land may also have a zoning designation or Special Area Regulation with certain restrictions pursuant to the Zoning Ordinance. For instance, lands may have a zoning designation of S81 Ecological Resource Area Regulations. The few uses allowed on lands with this designation are subject to strict provisions and limitations. The Zoning Ordinance also applies other Special Area Regulations with specific restrictions and provisions, including designator G (Sensitive Resource), R (Coastal Resource Protection Area) and/or V (Vernal Pool Area).

Resource Protection Ordinance

The RPO was adopted in 1989 and amended in 1991 and 2007. The RPO restricts to varying degrees impacts to various natural resources including wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands and historical sites. Certain permit types are subject to the requirement to prepare Resource Protection Studies under the RPO.

The RPO restricts uses in wetlands as defined by the ordinance. Aquaculture, scientific research, wetland restoration projects, limited removal of diseased or invasive plant species, and limited road-, driveway-, or trail-crossings may be allowed when specific findings are made for these uses. In addition, the ordinance requires that a wetland buffer be provided to further protect the wetland resources. Improvements necessary to protect the adjacent wetlands and those uses allowed within the actual wetland are the only allowed uses within the buffer. For more explicit information on these requirements refer to the RPO.

The RPO also limits impacts to sensitive habitat lands. Sensitive habitat lands include unique vegetation communities and/or the habitat that is either necessary to support a viable population of sensitive species, is critical to the proper functioning of a balanced natural ecosystem, or which serves as a functioning wildlife corridor. Habitats considered sensitive or significant under CEQA are not necessarily considered RPO sensitive habitat lands. Examples of RPO sensitive habitat lands include, but are not limited to:

- Lands that include populations of sensitive species (such as County Group A plants, Group I wildlife species, state-listed and federally listed species).
- Lands that contain unique vegetation communities, such as maritime succulent scrub, southern coastal bluff scrub, coastal and desert dunes, calcicolous scrub, maritime chaparral, valley sacaton grassland, hardpan and claypan vernal pools, montane meadows, mesquite bosque, native grassland, and Torrey pine forest.

Examples of lands that would not be considered RPO sensitive habitat lands include, but are not limited to, Coastal sage scrub, oak woodland, chaparral, and non-native grasslands, provided that these habitats: (a) do not include populations of sensitive species (such as Group A plants, Group I wildlife species, state-listed and federally listed species); (b) are not critical to a balanced ecosystem; or (c) are not part of a functioning wildlife corridor.

Impacts to RPO sensitive habitat lands shall only be allowed when: (a) all feasible measures have been applied to reduce impacts; and (b) mitigation provides an equal or greater benefit to the affected species.

The ordinance includes the provision that when "the extent of environmentally sensitive lands on a particular legal lot is such that no reasonable economic use of such lot would be permitted by these regulations, then an encroachment into such environmentally sensitive lands to the minimum extent necessary to provide for such reasonable use may be allowed".

East County Multiple Species Conservation Plan

The ECMSCP is still in process (County of San Diego 2021). The ECMSCP Planning Area covers approximately 1.55 million acres in San Diego County. The ECMSCP Planning Area is bounded on the west generally by the western boundary of the Cleveland National Forest, on the north by Riverside County, and on the east predominantly by Imperial County, and the south by Mexico. The ECMSCP includes the backcountry communities of Central Mountain, Cuyamaca, Descanso, Pine Valley, Desert/Borrego Springs, Julian, Mountain Empire, Boulevard, Jacumba, Lake Morena/ Campo, Potrero, Tecate, portions of Dulzura, and Palomar/North Mountain, all of which are within the jurisdictional boundary of the unincorporated San Diego County. The County has land use authority over private parcels and County-owned land in the unincorporated county, which is approximately 25% (382,000 acres) of the ECMSCP Planning Area. The other 75% of the planning area includes land subject to the land use jurisdiction of other public agencies. An executed NCCP Planning Agreement requires that the County consult with the wildlife agencies to ensure that projects do not conflict with preserve planning guidelines.

2.2.3 Analysis of Project Effects and Determination as to Significance

2.2.3.1 Methodology

Guidelines for the Determination of Significance

This section analyzes potential direct, indirect, and cumulative impacts to biological resources that could result from implementation of the proposed project. The analysis evaluates effects on sensitive natural communities, special-status plant and wildlife species, jurisdictional waters and wetlands, and wildlife movement corridors within the project site and surrounding buffer zones. The assessment is based on biological surveys, database records, technical studies, and current regulatory frameworks at local, state, and federal levels. Significance thresholds derived from County of San Diego Guidelines for Determining Significance are used to determine the level of impacts to biological resources (County of San Diego 2010a).

Survey Methodology

Biological resource data for the proposed project site were gathered through a combination of literature review and field surveys. A comprehensive review of pertinent literature was conducted in 2021 to identify special-status biological resources documented or potentially occurring within the project site. An additional desktop review for Crotch's bumble bee occurrence records (*Bombus crotchii*) was conducted in

2025. Field surveys were conducted to verify the presence of these resources and to supplement findings from the literature review.

Literature Review

The literature review consisted of analyzing publicly available spatial data from a variety of public agencies, geospatial data warehouses, and previously prepared reports from the vicinity of the project and surrounding quadrangles to ensure that current and accurate biological data were integrated into the review. The USGS 7.5-minute topographic quadrangles queried in this search were Jacumba, Sweeney Pass, Sombrero Peak, Mount Laguna, Cameron Corners, Live Oak Springs, Campo, and Tierra Del Sol.

Field Surveys

Field surveys for the 588-acre project site were conducted by SWCA between 2022 and 2024. The surveys included vegetation mapping, special-status plant surveys, jurisdictional wetlands/waters delineation, and protocol surveys for QCB. All field surveys were completed according to County requirements, and the entire survey area, which includes the project site and a 100-foot buffer, was surveyed by personnel on the ground over multiple field days. Sensitive environmental resources identified during these surveys were mapped and analyzed in coordination with the project's engineering plans to ensure biological resource considerations were incorporated into the project design. To verify and categorize habitat types within the site, SWCA biologists conducted vegetation mapping in the proposed off-site mitigation site parcels from June 6 to June 8, 2022. Figure 2.2-2 shows the off-site mitigation site parcel map. All habitat types within the mitigation site were field-verified, vegetation community boundaries were mapped, and habitat quality was recorded using a tablet and GPS unit. Table 2.2-2 summarizes the field surveys conducted on-site.

Table 2.2-2. Summary of Site Surveys

Date	Time	Temperature (°F)	Sky Conditions	Wind (mph)	Survey Type	Surveyor(s)
01/10/2022	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/11/2022	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/12/2022	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/13/2022	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/14/2022	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/24/2022	1000–1615	60–66	Clear, dry, sunny skies	5–15	Aquatic Resources Delineation, Vegetation Mapping	Tamara Kramer, Shirley Innecken, Luis Aguilar, and Lauren Strong
01/25/2022	0730–1330	40-61	Dry, sunny, partially cloudy skies, 0%–40% cloud cover	0-10	Aquatic Resources Delineation, Vegetation Mapping	Tamara Kramer, Luis Aguilar, and Lauren Strong
01/26/2022	0730-1330	40-57	Clear, dry, sunny skies, 5% cloud cover	0-5	Aquatic Resources Delineation, Vegetation Mapping	Tamara Kramer, Luis Aguilar, and Lauren Strong
01/27/2022	0730-1330	44-60	Clear, dry, sunny skies	0-5	Vegetation Mapping	Tamara Kramer and Lauren Strong

Date	Time	Temperature (°F)	Sky Conditions	Wind (mph)	Survey Type	Surveyor(s)
01/28/2022	0730-1330	39-53	Dry, 50% cloud cover	5-10	Vegetation Mapping	Tamara Kramer and Lauren Strong
04/05/2022	0730-1445	62-81	Dry, clear	3-5	Rare Plants 1	Tamara Kramer, Lee BenVau, and Ryan Myers
04/06/2022	0730-1400	66-78	Dry, clear	1-8	Rare Plants 1	Tamara Kramer, Lee BenVau, and Ryan Myers
04/07/2022	0730-1350	63-73	Dry, clear	5-20	Rare Plants 1	Tamara Kramer, Lee BenVau, Ryan Myers, and Lauren Strong
04/08/2022	0730-1200	64-75	Dry, clear	5-10	Rare Plants 1	Tamara Kramer and Ryan Myers
04/11/2022	0730-1330	56-64	Dry, 40%–60% cloud cover	15-25	Rare Plants 1	Tamara Kramer and Shirley Innecken
04/12/2022	0730-1430	37-52	50%–100% cloud cover	1-4	Rare Plants 1	Tamara Kramer and Lee BenVau
04/13/2022	0730-1330	40-65	Clear	0-3	Rare Plants 1	Tamara Kramer and Lee BenVau
04/14/2022	0730-1500	47-68	Clear	0-1	Rare Plants 1	Tamara Kramer and Lee BenVau
04/19/2022	0730-1400	58-70	Clear	0-10	Rare Plants 1	Tamara Kramer and Lee BenVau
04/20/2022	0730-1545	46-63	Clear	5-10	Rare Plants 1	Tamara Kramer and Lee BenVau
06/07/2022	0700-1400	73-88	Clear	2-5	Rare Plants 2	Tamara Kramer and Lee BenVau
06/08/2022	0700-1205	75-89	Clear	1-3	Rare Plants 2	Tamara Kramer and Lee BenVau
08/25/2022	0630–1300	70–92	Clear	5–10	Rare Plants 3	Tamara Kramer and Lee BenVau
08/22/2023	0700–1400	65–88	Clear	0–5	Vegetation Mapping, Rare Plants 4	Tamara Kramer and Lee BenVau
08/30/2023	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar, Lauren Strong, and Omar Moquit
08/31/2023	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar, Lauren Strong, and Omar Moquit
09/01/2023	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar, Lauren Strong, and Omar Moquit
02/28/2022	–	–	–	–	QCB Survey	Paul Lemons
04/16/2024	7:30-15:00	56-68	0-5% cloud cover	0-1	Rare Plants 4	Lauren Strong and Danielle Parsons
04/28/2025	--	--	--	--	Crotch's Bumble Bee Habitat Verification Surveys	Sharif Durzi and Parker Richardson
04/29/2025	--	--	--	--	Crotch's Bumble Bee Habitat Verification Surveys	Sharif Durzi and Parker Richardson

Notes: – = not recorded

Dust Control Measures

The project would implement the following best management practices (BMPs):

- Prior to the County's approval of any grading permits and during proposed project construction, a Fugitive Dust Control Plan will be prepared demonstrating compliance with San Diego Air Pollution Control District (SDAPCD) Rule 55 and County Code Section 87.428 (Grading Ordinance), to the satisfaction of the County. The project applicant or its designee will require implementation of the following fugitive dust measures to minimize PM_{10} emissions as part of the Fugitive Dust Control Plan. All measures will be designated on Grading and Improvement Plans.
    - Prior to construction activities, the project applicant will employ a construction relations officer who will address community concerns regarding on-site construction activity. The project applicant will provide public notification in the form of a visible sign containing the contact information of the construction relations officer who will document complaints and concerns regarding on-site construction activity. The sign will be placed in easily accessible locations and noted on Grading and Improvement Plans.
    - Grading areas will be watered at least three times daily, or another SDAPCD-approved dust control non-toxic agent will be used, to minimize fugitive dust only where chemical stabilizers are not used.
    - All permanent roads and the paved access roadway improvements will be constructed and paved as early as possible in the construction process to reduce construction vehicle travel on unpaved roads. Foundations will be finalized as soon as possible following site preparation and grading activities to reduce fugitive dust from earthmoving operations.
    - Grading areas will be stabilized as quickly as possible to minimize fugitive dust.
    - Wheel washers, grates, rock, or road washers will be installed adjacent to the site access points for tire inspection and washing prior to vehicle entry on public roads.
    - Visible track-out into traveled public streets will be removed with the use of sweepers, water trucks, or similar method within 30 minutes of occurrence.
    - Haul trucks will be covered or at least 2 feet of freeboard will be maintained to reduce blow-off during hauling.
    - A 15-mile-per-hour speed limit on unpaved surfaces will be enforced.
    - Haul truck staging areas will be provided for loading and unloading of soil and materials and will be located away from sensitive receptors at the farthest feasible distance.
- All architectural coatings used during construction will be SDAPCD Rule 67–compliant.
- Paved roads will be cleaned regularly during construction.
- During blasting activities, the construction contractor will implement all feasible engineering controls to control fugitive dust including exhaust ventilation, blasting cabinets and enclosures, vacuum blasters, drapes, water curtains, or wet blasting. Watering methods, such as water sprays and water applications, also will be implemented during blasting, rock crushing, cutting, chipping, sawing, or any activity that will release dust particles to reduce fugitive dust emissions.
- All internal access road surfaces will be consistent with the Caltrans Class II standard construction specifications, and will be composed of permeable decomposed granite, and permeable in order to reduce fugitive dust and erosion in accordance with County Code Section 87.428, Dust Control Measures, and with San Diego Air Pollution Control District Rule 55, which regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions.

2.2.3.2 Candidate, Sensitive, or Special-status Species

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Biological Resources* (County of San Diego 2010a) was used to establish significance thresholds. As stated in the County guidelines, a significant impact would result if:

- The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in 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 information should be evaluated to provide evidence to support a determination of impact significance.

    A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

    B. The project would impact an on-site population of a County List A or B plant species, or a County Group I animal species, or a species listed as a state Species of Special Concern. Impacts to these species are considered significant; however, impacts of less than 5 percent of the individual plants or of the sensitive species' habitat on a project site may be considered less than significant if a biologically-based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of that plant or animal taxon.

    C. The project would impact the local long-term survival of a County List C or D plant species or a County Group II animal species.

    D. The project may impact arroyo toad aestivation, foraging or breeding habitat. Any alteration of suitable habitat within 1 kilometer (3,280 feet) in any direction of occupied breeding habitat or suitable stream segments (unless very steep slopes or other barriers constrain movement) could only be considered less than significant if a biologically-based determination can be made that the project would not impact the aestivation or breeding behavior of arroyo toads.

    E. The project would impact golden eagle habitat. Any alteration of habitat within 4,000 feet of an active golden eagle nest could only be considered less than significant if a biologically-based determination can be made that the project would not have a substantially adverse effect on the long-term survival of the identified pair of golden eagles.

    F. The project would result in the loss of functional foraging habitat for raptors. Impacts to raptor foraging habitat is considered significant; however, impacts of less than 5 percent of the raptor foraging habitat on a project site may be considered less than significant if a biologically-based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of any raptor species.

    G. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species. Alteration of any portion of a core habitat could only be considered less than significant if a biologically-based determination can be made that the project would not have a substantially adverse effect on the core area and the species it supports.

H. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive species over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown to adversely affect sensitive species.

I. The project would impact occupied burrowing owl habitat.

J. The project would impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

K. The project would impact occupied Hermes copper habitat.

L. The project would impact nesting success of the following sensitive bird species through grading, clearing, fire fuel modification, and/or other noise generating activities such as construction.

   a. Coastal cactus wren (Breeding Season February 15 to August 15)
   b. Coastal California gnatcatcher (Breeding Season February 15 to August 31)
   c. Least Bell's vireo (Breeding Season March 15 to September 15)
   d. Southwestern willow flycatcher (Breeding Season May 1 to September 1)
   e. Tree-nesting raptors (Breeding Season January 15 to July 15)
   f. Golden eagle (Breeding Season January 1 to July 31)
   g. Light-footed clapper rail (Breeding Season February 15 to September 30)

Analysis

Special-status species are those species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened population sizes. Candidate species are eligible for listing as federal or state threatened or endangered species. Surveys for special-status flora and fauna were completed at the project site between 2022 and 2025.

Project Effects Relevant to Guideline A

No federally or state-listed endangered or threatened species have been detected on-site or have high potential to occur on-site.

The western spadefoot (*Spea hammondii*), classified as a County of San Diego Group 2 species and a federally proposed species for listing as threatened, is identified as present as documented in historical records within the project site according to USGS data. According to USGS occurrence data and communications with USFWS, the project may affect potentially suitable breeding and upland habitats for this species. The loss of western spadefoot (federally proposed threatened [FPT], County Group 2, and state SSC) due to construction-related activities would constitute a **potentially significant impact** (**Impact BI-W-1**). The loss of suitable western spadefoot toad habitat could adversely affect the long-term viability of the local population and would constitute a **potentially significant impact** (**Impact BI-W-5**).

No state-listed endangered or threatened species have been detected on-site, nor is there a high potential for their occurrence. Portions of the project site may have potential habitat to support the state candidate for listing, the Crotch's bumble bee (*Bombus crotchii*) and the project falls within the mapped Crotch's bumble bee range. Following a desktop habitat assessment, qualified SWCA biologists conducted field habitat

suitability verification surveys during late April. Surveys were conducted on April 28 and 29, 2025. The biologists compared on-the-ground habitat conditions with the results of the desktop habitat assessment by visiting a subset of likely nesting and foraging habitat. The focused verification surveys occurred during the spring blooming period on approximately 25% of the suitable habitat identified through the desktop habitat assessment. Loss of Crotch's bumble bee due to construction-related activities would be **potentially significant** (**Impact BI-B-1**). Loss of suitable Crotch's bumble bee habitat would affect the local long-term survival of this species and would be a **potentially significant impact** (**Impact BI-W-5**).

Project Effects Relevant to Guideline B

County List A Species

Short-term direct impacts to County List A plant species would primarily result from construction activities (e.g., clearing, trampling, and grading outside the limits of work) without avoidance and mitigation measures. These impacts would be **potentially significant** (**Impact BI-SP-1**).

Three County List A species would have long-term direct impacts from the proposed project: Jacumba milkvetch, long-spined spineflower, and Tecate tarplant. Approximately 149 (Phase I) and 1,052 (Phase II) Jacumba milkvetch individuals of the 1,351 observed within the survey area would be directly impacted by the project. Approximately 50 (Phase II) long-spined spineflower individuals of the 595 observed within the survey area would be directly impacted by the project. Approximately 328 (Phase II) Tecate tarplant individuals of the 1,171 observed within the survey area would be directly impacted by the project. These impacts would be **potentially significant** (**Impact BI-SP-2**).

County List B Species

Short-term direct impacts to County List B plant species would primarily result from construction activities (e.g., clearing, trampling, and grading outside the limits of work) without avoidance and mitigation measures. These impacts would be **potentially significant** (**Impact BI-SP-1**).

Two County List B species would have long-term direct impacts from the proposed project: sticky geraea and desert beauty. Approximately 336 (Phase I) and 1,046 (Phase II) of the 2,536 sticky geraea individuals observed within the survey area would be directly impacted by the project. Approximately 769 (Phase I) and 74 (Phase II) of the 2,105 desert beauty individuals observed within the survey area would be directly impacted by the project. These impacts would be **potentially significant** (**Impact BI-SP-2**).

County Group 1 or SSC Species

Loss of special-status wildlife species (County Group 1 or state SSC animals), including individual reptiles and small mammals, from construction-related activities would be **potentially significant** (**Impact BI-W-1**).

Eight County Group 1 and/or SSC animal species were detected within the survey area: Cooper's hawk, sharp-shinned hawk, Bell's sage sparrow, turkey vulture, Southern California legless lizard, coast horned lizard, San Diego black-tailed jackrabbit, and San Diego desert woodrat. An additional 16 County Group 1 and/or SSC animal species have high potential to occur on-site: southern California rufous-crowned sparrow, golden eagle, long-eared owl, red-shouldered hawk, northern harrier, white-tailed kite, prairie falcon, loggerhead shrike, Lewis' woodpecker, California glossy snake, red-diamond rattlesnake, pallid bat, Dulzura pocket mouse, northwestern San Diego pocket mouse and, pallid San Diego pocket mouse, greater western mastiff bat, and southern grasshopper mouse. Protocol QCB surveys conducted in 2022 and 2024 determined QCB to be absent on the site.

If any active nests or the young of nesting special-status bird species (County Group 1 or SSC) are directly impacted through project construction, these impacts would be considered **potentially significant**, based on the MBTA (**Impact BI-W-2**). Loss of suitable nesting/foraging habitat would be a **potentially significant impact** (**Impact BI-W-3**).

Project Effects Relevant to Guideline C

County List C and D Species

There will be no direct impacts to County List C species resulting from implementation of this project. Two County List D species would have long-term direct impacts resulting from the project: Colorado Desert larkspur and pride-of-California. Approximately 186 (Phase I) of the 301 Colorado desert larkspur individuals, and 1 (Phase I) and 14 (Phase II) of the 31 pride-of-California individuals observed within the survey area would be directly impacted by the project. These impacts would be **potentially significant** (**Impact BI-SP-3**).

Payson's jewel flower and low bush monkeyflower occur within the survey area but would not be directly impacted by the project. These proposed impacts to County List D species would not be significant because all species are CRPR 4.3, indicating that these plants are of limited distribution or infrequent throughout California and their vulnerability or susceptibility to threat is low. Project impacts would not substantially affect the long-term survival of these species, and impacts would be **less than significant**.

County Group 2 Species

Direct loss of other County Group 2 species individuals that are not SSC would be less than significant because these species have a relatively widespread regional distribution, and the project would not impact their local long-term survival. These species occur in a variety of habitats at various elevations and topographies that are available throughout the region. However, if active nests or young of nesting County Group 2 bird species are directly impacted, these impacts would be **potentially significant** based on the MBTA (**Impact BI-W-4**).

Six County Group 2 species were detected within the survey area: western spadefoot, California horned lark, western bluebird, mule deer, and mountain lion. An additional eight County Group 2 species have high potential to occur on-site: mountain quail, rosy boa, San Diego ringneck snake, ringtail, western red bat, small-footed myotis, long-eared myotis, and monarch butterfly. Eleven additional Group 2 species were analyzed above because they are SSC animals: Southern California legless lizard, California glossy snake, red-diamond rattlesnake, coast horned lizard, pallid bat, Dulzura pocket mouse, northwestern San Diego pocket mouse, pallid San Diego pocket mouse, greater western mastiff bat, San Diego black-tailed jackrabbit, and San Diego desert woodrat. Impacts related to the loss of suitable habitat would affect the local long-term survival of County Group 2 species and would be a **potentially significant** (**Impact BI-W-5**).

Project Effects Relevant to Guideline D

The project would not impact arroyo toad (*Anaxyrus californicus*) aestivation, foraging, or breeding habitat because the project site is approximately 15 miles southeast of the nearest documented arroyo toad occurrence (CDFW 2024a) and suitable habitat does not occur on-site. No arroyo toads have been detected in the project site. Therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline E

Golden eagles have high potential to occur on-site but were not observed during surveys. The project would not impact golden eagle habitat as no active nests or territories are known to occur within 4,000 feet of the project site. A USGS mapping effort for golden eagles has identified a telemetry-tracked individual utilizing portions of Empire Ranch near the U.S.-Mexico border, further indicating the species' likelihood of high potential to occur within the broader project site. The nearest documented CNDDB occurrence is approximately 8 miles east of the project site. Long-term direct impacts to 4.7 acres of marginally suitable nesting habitat and 591.9 acres of suitable foraging habitat would be **potentially significant** (**Impact BI-W-6**).

Project Effects Relevant to Guideline F

Foraging habitat for raptors is present throughout the project site. The entirety of the 588-acre project site (124.91 acres in Phase I and 438.68 acres in Phase II) would be impacted—greater than 5% of on-site raptor foraging habitat. Therefore, this impact would be **potentially significant** (**Impact BI-W-5**).

Project Effects Relevant to Guideline G

The project site is greater than 500 acres and supports multiple wildlife species, meeting the definition of a core wildlife area. As such, the project would impact the viability of a core wildlife area. Therefore, this impact would be **potentially significant** (**Impact BI-W-6**).

Project Effects Relevant to Guideline H

Short-term indirect impacts to special-status plant species include generation of fugitive dust, altered hydrology, and introduction of chemical pollutants. These impacts would be **potentially significant** (**Impact BI-SP-3**). Potential long-term indirect impacts include generation of fugitive dust, habitat fragmentation, introduction of chemical pollutants, increased or introduction of nonnative invasive species, increased human access/activity, and alteration of the natural fire regime. These impacts would be **potentially significant** (**Impact BI-SP-4**).

Short-term indirect impacts to special-status animal species include generation of fugitive dust, noise, chemical pollutants, increased human access/activity, and introduction of nonnative species. These impacts would be **potentially significant** (**Impact BI-W-7**).

Long-term indirect impacts to special-status animal species include generation of fugitive dust, introduction of nonnative invasive species, habitat fragmentation, increased human access/activity, noise, altered hydrology, and altered fire regime. These long-term indirect impacts to special-status wildlife species would be **potentially significant** (**Impact BI-W-8**).

Project Effects Relevant to Guideline I

The nearest documented burrowing owl (*Athene cunicularia*) occurrence is approximately 7 miles east of the project site, last documented in 2010, with the next nearest occurrences approximately 36 miles west of the project site in Otay Mesa and northeast near Anza Borrego Desert State Park (CDFW 2024a). This species has not been observed on or adjacent to the project site and does not have high potential to occur on-site, thus the project is unlikely to impact occupied burrowing owl habitat. Therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline J

The project does not support suitable coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) habitat on-site and is approximately 40 miles east of the nearest known occurrence (CDFW 2022a); thus, the project would not impact occupied or formerly occupied coastal cactus wren habitat. Therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline K

The nearest documented Hermes copper (*Lycaena hermes*) occurrence is approximately 24 miles northwest of the project (CDFW 2024a) and the project does not contain spiny redberry (*Rhamnus crocea*), the larval hostplant of Hermes copper, rendering the project unsuitable for this species. Thus, there would be no impact to occupied Hermes copper habitat. Therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline L

The two utility poles associated with the gen-tie alignment would provide perches from which birds could forage, which may increase the risk of fatality from collisions and electrocutions. The project will incorporate Avian Power Line Interaction Committee (APLIC) standards (APLIC 2006) to reduce the potential for impacts to avian species (**PDF-BI-1**).

Coastal cactus wren, coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), golden eagle, and light-footed clapper rail (*Rallus longirostris levipes*) are not expected to nest on-site due to lack of suitable habitat; therefore, there would be no impacts to the nesting success of those species as a result of the proposed project. No ground-nesting raptors (e.g., northern harrier) are expected to nest on-site. Therefore, no impacts to the nesting success of those species as a result of the project are anticipated. However, the project could potentially affect the nesting success of tree-nesting raptors on-site via habitat removal and noise impacts. Therefore, this impact would be **potentially significant** (**Impact BI-W-2**).

2.2.3.3 Riparian Habitat or Sensitive Natural Community

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Biological Resources* (County of San Diego 2010a) was used to establish significance thresholds. As stated in the County guidelines, a significant impact would result if:

- The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- The following information should be evaluated to provide evidence to support a determination of impact significance.
    A. Project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5 [County of San Diego 2010b], excluding those without a mitigation ratio) on or off the project site. This Guideline would not apply to small remnant pockets of habitat that have a demonstrated limited biological value. No de minimus standard is specified under which an impact would not be significant, however; minor impacts to native or naturalized habitat that is providing essentially no biological habitat or wildlife value can be evaluated on a case-by-case basis to determine whether the projected impact may be less than significant.

For example, an impact to native or naturalized upland habitat under 0.1 acre in an existing urban setting may be considered less than significant (depending on a number of factors). An evaluation of this type should consider factors including, but not limited to, type of habitat, relative presence of habitat type in project vicinity, its condition and size, presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in project vicinity, and current degree of urbanization and edge effects in project vicinity, etc. Just because a particular habitat area is isolated, for example, does not necessarily mean that impacts to the area would not be significant (e.g. vernal pools). An area that is disturbed or partially developed may provide a habitat "island" that would serve as a functional refuge area "stepping stone" or "archipelago" for migratory species.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by U.S. Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG) and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

D. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown by the best available science to adversely affect the functioning of sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. If the project is subject to the Resource Protection Ordinance, buffers of a minimum of 50 feet and a maximum of 200 feet to protect wetlands are required based on the best available science available to the County at the time of adoption of the ordinance. The following examples provide guidance on determining appropriate buffer widths.

   – A 50-foot wetland buffer would be appropriate for lower quality RPO wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive and slopes do not exceed 25%.
   – A wetland buffer of 50-100 feet is appropriate for moderate to high quality RPO wetlands which support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25%) with highly erosive soils. Within the 50-100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.
   – Wetland buffers of 100-200 feet are appropriate for RPO wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-

associated sensitive species or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.

– Buffering of greater than 200 feet may be necessary when an RPO wetland is within a regional corridor or supports significant populations of wetland associated sensitive species and lies adjacent to land use(s) which could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO wetland buffers, actions may be subject to other laws and regulations (such as the Endangered Species Act) that require greater wetland buffer widths.

Analysis

Project Effects Relevant to Guideline A

Short-term direct impacts to special-status upland vegetation communities would primarily result from construction activities. Clearing, trampling, or grading of special-status vegetation communities beyond the limits of work could occur without implementation of avoidance and mitigation measures. These impacts would be **potentially significant** (**Impact BI-V-1**).

Long-term direct impacts to special-status upland vegetation communities would occur as a result of project implementation (Table 2.2-3). Impacts to all habitats, except for those to disturbed, bare ground, and developed land within the project site, would be **potentially significant** (**Impact BI-V-2**).

Table 2.2-3. Habitat/Vegetation Communities and Impacts

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Off-Site Impacts (acres)	Impact Neutral (acres)	Total Impacts (acres)
Phase I					
Granitic Northern Mixed Chaparral (37131)	99.58	92.54	0	7.04	92.54
Redshank Chaparral (37300)	24.53	24.53	0	0	24.53
Granitic Chamise Chaparral (37210)	3.03	3.03	0	0	3.03
Montane Buckwheat Scrub (37K00)	1.97	1.97	0	0	1.97
Field/Pasture (18310)	0	0	0	0	0
Big Sagebrush Scrub (35210)	0	0	0	0	0
Disturbed (11300)	0	0	0	0	0
Bare Ground	2.56	2.52	0	0.04	2.52
Urban/ Developed (12000)	0	0	0	0	0
Open Coast Live Oak Woodland (71161)	0.32	0.32	0	0	0.32
Non-native Grassland (42200)	0	0	0	0	0
Tamarisk Scrub (63810)	0	0	0	0	0
Freshwater Seep (45400)	0	0	0	0	0
Southern Riparian Scrub (63300)	0	0	0	0	0
Freshwater (64140)	0	0	0	0	0
Coast Live Oak Woodland (71160)	0	0	0	0	0
Alkali Marsh (52300)	0	0	0	0	0
Oak Root Zone*	0.91	0.91	0	0	0.94

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Off-Site Impacts (acres)	Impact Neutral (acres)	Total Impacts (acres)
Total	**131.99**	**124.91**	**0**	**7.08**	**124.91**
Phase II					
Granitic Northern Mixed Chaparral (37131)	136.91	126.33	0	49.68	126.33
Redshank Chaparral (37300)	121.67	119.35	0	2.71	119.35
Granitic Chamise Chaparral (37210)	62.04	61.56	0	7.41	61.56
Montane Buckwheat Scrub (37K00)	52.92	51.14	0	0.07	51.14
Field/Pasture (18310)	28.10	27.98	0	0	27.98
Big Sagebrush Scrub (35210)	15.38	15.38	0	0	15.38
Disturbed (11300)	10.01	10.01	0	0	10.01
Bare Ground	22.17	21.53	0	0.47	21.53
Urban/ Developed (12000)	0.03	0	0	0	0
Open Coast Live Oak Woodland (71161)	4.32	4.31	0	0	4.31
Non-Native Grassland (42200)	2.49	1.05	0	0	1.05
Tamarisk Scrub (63810)	0	0	0	0	0
Freshwater Seep (45400)	0.04	0.04	0	0	0.04
Southern Riparian Scrub (63300)	0	0	0	0	0
Freshwater (64140)	0	0	0	0	0
Coast Live Oak Woodland (71160)	0	0	0	0	0
Alkali Marsh (52300)	0	0	0	0.0	0
Oak Root Zone*	12.47	12.47	0	0	12.47
Total	**456.08**	**438.68**	**0**	**60.34**	**438.68**

*This is an overlay to the vegetation community layer and is not counted toward the total acreage of on-site habitats; it is only used in determining required mitigation.

Project Effects Relevant to Guideline B

Total impacts of a temporary nature and potential permanent impacts to aquatic resources may result in a cumulative total of 0.81 acre (16,320 linear feet) to Water Board non-wetland WOS, 0.01 acre (25 linear feet) to Water Board WWOS, and 2.35 acres (16,505 linear feet) to CDFW Jurisdictional Resources (Figures A8a–A8p; Table 3 in Appendix I in the Biological Resources Report). An approved jurisdictional determination (AJD) of no jurisdiction could result in zero impacts to USACE-regulated resources, and it is anticipated that an AJD would result in a no WOTUS determination. Table 2.2-4 summarizes aquatic resources and project impacts.

Table 2.2-4. Summary of Aquatic Resources and Project Impacts

Aquatic Resource	Survey Area (Acres)	Survey Area (Linear Feet)	Temporary Impacts (Acres)	Temporary Impacts (Linear Feet)	Permanent Impacts (Acres)	Permanent Impacts (Linear Feet)	Cumulative Temporary and Permanent Impacts (Acres)	Cumulative Temporary and Permanent Impacts (Linear Feet)
Water Board WOS	1.40	27,342	0.64	12,507	0.17	3,813	0.81	16,320
Water Board WWOS	0.26	124	0	0	0.01	25	0.01	25
WWOUS	0	0	0	0	0	0	0	0
WOTUS	0	0	0	0	0	0	0	0
CDFW Jurisdictional Resources	3.74	27,709	1.75	12,540	0.60	3,965	2.35	16,505

Short-term direct impacts to jurisdictional resources may include brushing and grubbing associated with construction preparation and establishment of fuel modification zones. Temporary impacts to aquatic resources may include 0.64 acre (12,507 linear feet) to WOS and 1.75 acres (12,540 linear feet) to CDFW jurisdictional resources. No temporary impacts to WWOS are anticipated to result from project-related activities. These impacts would be **potentially significant** (**Impact BI-JR-1**).

Permanent impacts are anticipated to result in approximately 0.17 acre (3,813 linear feet) to WOS, 0.01 acre (25 linear feet) to WWOS, and 0.6 acre (3,965 linear feet) to CDFW jurisdictional resources. While certain project components such as the battery energy storage system (BESS), inverter pads and the substation do not impact aquatic resources, permanent impacts are anticipated to result from grading and the installation of service roads. These long-term direct impacts would be **potentially significant** (**Impact BI-JR-2**).

Short-term indirect impacts to these resources would result from construction activities and could include generation of fugitive dust, changes in hydrology, and the introduction of chemical pollutants. These impacts would be **potentially significant** (**Impact BI-JR-3**).

Long-term indirect impacts to these resources would result from impacts related to operation and maintenance activities, including chemical pollutants, altered hydrology, introduction of nonnative species, increased human activity, and alteration of the natural fire regime. These impacts would be **potentially significant** (**Impact BI-JR-4**).

Project Effects Relevant to Guideline C

Water used during project construction and operation would be supplied by the Jacumba Community Services District (JCSD), located in Jacumba Hot Springs, California. Water would be trucked to the project site from two JCSD wells: the Highland Center Well and the Park Well. The groundwater resources investigation report for the project prepared an updated estimate of groundwater in storage, including methodology, calculations, and results (see Appendix G.5).

During construction activities, the project would primarily use water for dust control during earthwork and grading. Project operation would require water for nonpotable use, dust control, panel washing, and fire protection. No landscaping irrigation is proposed for the operation and maintenance (O&M) of the proposed project. During operation, the project would require water for panel washing up to one time per year.

Activities associated with decommissioning would not include substantial earthmoving. It is estimated that the amount of water necessary to dismantle the solar facility would be less than that required for construction because there would be no need to use water to hydrate and compact on-site fills. The activities associated with decommissioning would not include grading. Refer to Sections 2.4 Hydrology and Water Quality and 3.1.10 Utilities and Service System for additional information regarding the project's water demand.

As discussed in the groundwater resource investigation report, the project's water demand is not anticipated to adversely impact nearby groundwater-dependent vegetation or cause well interference (see Appendix G.5). The analysis assumed no rainfall recharge to occur over the time periods tested. As such, the analysis followed a conservative approach, since it likely overestimated predicted drawdown. Recharge would offset groundwater-level decline related to groundwater extraction during periods of above-average annual rainfall (non-drought conditions).

Additionally, since actual conditions during groundwater extraction may vary from theoretical analysis, a groundwater monitoring and mitigation plan (GMMP) is a typical condition of approval for by the County for utility-scale renewable projects that are groundwater-dependent and ensures that pumping does not significantly impact existing well users or groundwater-dependent vegetation. Thus, a GMMP has been prepared for the proposed project (see Appendix G.2). Incorporation of **PDF-HY-2** would ensure that the project would implement the GMMP (see Section 2.4, Hydrology and Water Quality). With the implementation of **PDF-HY-2**, the total volume and rate of groundwater extracted from Highland Center Well and Park Wells would be monitored and documented throughout the duration of the project pumping. The implementation of **PDF-HY-2** would also provide for monitoring of the overall groundwater level in the project site. Therefore, impacts related to drawdown detrimental to groundwater-dependent habitat would be **less than significant.**

Project Effects Relevant to Guideline D

Short-term indirect impacts to special-status upland vegetation communities as a result of project implementation include generation of fugitive dust, changes in hydrology, and the introduction of chemical pollutants. These impacts would be **potentially significant** (**Impact BI-V-3**).

Long-term indirect impacts to special-status upland vegetation communities include habitat fragmentation, altered hydrology, generation of fugitive dust, introduction of chemical pollutants, introduction of nonnative species, altered fire regime, and increased human activity. These impacts would be **potentially significant** (**Impact BI-V-4**).

Project Effects Relevant to Guideline E

The RPO wetland identified within the survey area but outside of the project site is isolated and does not provide connectivity with other wetland resources. The soils where the RPO wetland occurs are not highly erosive and the slopes do not exceed 25%. However, the hillside seep does support a predominance of hydrophytic vegetation. A 50-foot wetland buffer would be adequate to protect the functions and values of this wetland. No direct impacts to RPO wetlands or their wetland protection buffers will occur. One RPO wetland buffer, a 50-foot protection buffer around an observed RPO wetland located outside of the project footprint but within the survey area buffer, was observed within the survey area but would be flagged for avoidance. Impacts to aquatic resources, including WOS and WWOS but excluding RPO wetlands and wetland buffers may result from grading, excavation, and other ground-disturbing activities necessary to facilitate the installation of solar arrays as well as their supporting infrastructure, but this is considered Impact Neutral. There are no proposed impacts to this wetland or the wetland buffer; therefore, the project adheres to this guideline and **no impacts** are anticipated.

2.2.3.4 Jurisdictional Wetlands and Waterways

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Biological Resources* (County of San Diego 2010a) was used to establish significance thresholds. As stated in the County guidelines, a significant impact would result if:

- The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.
- This Guideline refers only to federally protected wetlands. The significance of impacts shall be determined under B, C, and E in Section 2.2.3.1 (Candidate, Sensitive, or Special-status Species).

Additionally, the following guiding question from Appendix G of the State CEQA Guidelines (14 CCR 15000 et seq.) applies to both the direct impact analysis and the cumulative impact analysis. A significant impact would result if the effects exceed the significance criteria described below:

- 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

As such, both state and federally protected wetlands are addressed in this section.

Analysis

No federal wetlands were identified in the survey area. Subject to USACE concurrence, the project will not result in impacts to federal wetlands. Three state wetlands were identified within the survey area. One of these wetlands was observed within the project site while the other two occur within the survey area and beyond but are outside of the project site.

No temporary impacts to WWOS are anticipated to result from project-related activities. The project would permanently impact 0.01 acre (25 linear feet) of WWOS as a result of project implementation. While certain project components such as the BESS, inverter pads and the substation do not impact aquatic resources, permanent impacts are anticipated to result from grading and the installation of service roads. These long-term direct impacts would be **potentially significant** (**Impact BI-JR-2**).

Long-term indirect impacts to these resources would result from impacts related to O&M activities, including chemical pollutants, altered hydrology, introduction of nonnative species, increased human activity, and alteration of the natural fire regime. These impacts would be **potentially significant** (**Impact BI-JR-4**).

2.2.3.5 Wildlife Movement and Nursery Sites

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Biological Resources* (County of San Diego 2010a) was used to establish significance thresholds. As stated in the County guidelines, a significant impact would result if:

- The project would 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.
- The following information should be evaluated to provide evidence to support a determination of impact significance.

    A. The project would impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

    B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage. For example, if the project proposes roads that cross corridors, fencing that channels wildlife to underpasses located away from interchanges will be required to provide connectivity. Wildlife underpasses shall have dimensions (length, width, height) suitable for passage by the affected species based on a site-specific analysis of wildlife movement. Another example is increased traffic on an existing road that would result in significant road-kill or interference with an existing wildlife corridor/linkage.

    C. The project would create artificial wildlife corridors that do not follow natural movement patterns. For example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along the face of a steep slope instead of through the valley or along the ridgeline.

    D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels likely to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

    E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path. The adequacy of the width shall be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography and adjacent land uses. Where there is limited topographic relief, the corridor should be well-vegetated and adequately buffered from adjacent development. Corridors for bobcats, deer and other large animals should reach rim-to-rim along drainages.

    F. The project does not maintain adequate visual continuity (i.e., long lines-of-site) within wildlife corridors or linkage. For example, development (such as homes or structures) sited along the rim of a corridor could present a visual barrier to wildlife movement. For stepping-stone/archipelago corridors, a project does not maintain visual continuity between habitat patches.

Analysis

Project Effects Relevant to Guideline A

Short-term direct impacts to suitable foraging and breeding habitat for species that use the project site would result from construction activities such as clearing, trampling, or grading outside designated limits of work in the absence of avoidance and mitigation measures. These impacts would be **potentially significant** (**Impact BI-WM-1**). Long-term direct impacts to suitable foraging and breeding habitat would occur as a result of project implementation. These impacts would be **potentially significant** (**Impact BI-WM-2**).

Short-term and long-term indirect impacts to wildlife access to foraging and breeding habitat would be **potentially significant** (**Impact BI-WM-3**).

The project site currently allows for unrestricted wildlife movement and does not qualify as a corridor but is broadly modeled as occurring within an "Essential Connectivity Area," of which the project would occupy approximately 2% (Appendix D; Sections 1.4.8 and 2.6). Existing dirt roads on and adjacent to the project site already divide the habitat into smaller blocks and serve as part of a network of wildlife movement paths. The proposed project would be located in discontinuous areas with relatively undisturbed habitat that would allow for wildlife passage between the developed areas given the lack of fencing along the access roads. Figure 2.2-5 illustrates potential wildlife movement on the project site. The wall along the U.S.–Mexico border also prevents the passage of most terrestrial wildlife. Additionally, finer-scale habitat movement modeling suggests wildlife movement is not expected where development is proposed. The project's northern portion would result in fragmentation within the focused conservation area (FCA), potentially minimizing connectivity across the east-west section of the ECMSCP FCA parcels north of Tule Jim Road (as illustrated in Figure 2.2-1), resulting in **potentially significant impacts** to wildlife connectivity (**Impact BI-WM-4**).

Project Effects Relevant to Guideline B

As discussed above, the project site currently allows for unrestricted wildlife movement and does not qualify as a corridor. Existing dirt roads on and adjacent to the project site already divide the habitat into smaller blocks. The proposed project would be located in discontinuous areas with relatively undisturbed habitat that would allow for wildlife passage between the developed areas. The wall along the U.S. –Mexico border also prevents the passage of most terrestrial wildlife. Therefore, the project would not substantially interfere with a local regional wildlife corridor or linkage, and impacts would be **less than significant.**

Project Effects Relevant to Guideline C

As described above, the project site is not considered to be a significant local or regional wildlife corridor or linkage. Therefore, the project would not create any artificial wildlife corridors and would have a **less-than-significant impact**.

Project Effects Relevant to Guideline D

As described above, the project site is not considered to be a significant local or regional wildlife corridor or linkage. Therefore, the project would have a **less-than-significant impact** on a wildlife corridor or linkage to levels likely to affect the behavior of wildlife.

Project Effects Relevant to Guideline E

As described above, the project site is not considered to be a significant local or regional wildlife corridor or linkage. Therefore, the project would have a **less-than-significant impact** on the width of an existing wildlife corridor or linkage.

Project Effects Relevant to Guideline F

As described above, the project site is not considered to be a significant local or regional wildlife corridor or linkage. Therefore, the project would have a **less-than-significant impac**t on the visual continuity of an existing wildlife corridor or linkage.

2.2.3.6 Local Policies, Ordinances, and Adopted Plans

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance, Report Format and Content Requirements – Biological Resources* (County of San Diego 2010a) was used to establish significance thresholds. As stated in the County guidelines, a significant impact would result if:

- The project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.
- The following information should be evaluated to provide evidence to support a determination of impact significance.
    A. For lands outside of the MSCP, the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5% habitat loss threshold as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.
    B. The project would preclude or prevent the preparation of the subregional Natural Communities Conservation Planning Process (NCCP). For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.
    C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the Resource Protection Ordinance (RPO).
    D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the Natural Communities Conservation Planning Process (NCCP) Guidelines.
    E. The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan (HCP), Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.
    F. For lands within the Multiple Species Conservation Program (MSCP), the project would not minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the Biological Mitigation Ordinance (BMO).
    G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.
    H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the Biological Mitigation Ordinance (BMO).
    I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.
    J. The project would reduce the likelihood of survival and recovery of listed species in the wild.
    K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).

L. The project would result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

Analysis

Project Effects Relevant to Guideline A

The project site does not support CSS habitat and would not impact CSS habitat. Therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline B

The project would not preclude or prevent the preparation of the subregional NCCP, because the project has been planned in accordance with the MSCP and in-process ECMSCP subarea plan. The project design has been evaluated according to the Preliminary Conservation Objectives provided in the Planning Agreement for the ECMSCP (County of San Diego 2021) as shown in Table 2.2-5. Impacts would be **less than significant**.

Table 2.2-5. ECMSCP Planning Agreement Conservation Objectives

Conservation Objective	Applicability/Compliance
Provide for the protection of species, natural communities, and ecosystems on a landscape level.	The project, with mitigation, will provide for protection and conservation of special-status species and natural communities.
Preserve the diversity of plant and animal communities throughout the Planning Area.	The project, with mitigation, will provide for protection and conservation of plant and animal communities in the project site, thereby contributing to the preservation of habitat diversity within the Planning Area.
Protect threatened, endangered, or other special-status plant and animal species, and minimize and mitigate the take or loss of proposed Covered Species.	The project, with mitigation, will provide for protection and conservation of special-status species and natural communities.
Identify and designate biologically sensitive habitat areas.	Biological studies have been conducted for the site to determine sensitive habitat areas.
Preserve habitat and contribute to the recovery of Covered Species.	The project, with mitigation, will provide for protection and conservation of special-status species and natural communities.
Reduce the need to list additional species.	Not applicable. Further listing of species occurs through regulatory processes governed by the relevant natural resources agencies.
Set forth species-specific goals and objectives.	Not applicable. The County and relevant agencies are responsible for defining ECMSCP species-specific goals and objectives.
Set forth specific habitat-based goals and objectives expressed in terms of amount, quality, and connectivity of habitat.	Not applicable. The County and relevant agencies are responsible for defining habitat-based goals and objectives in the ECMSCP.
Provide an effective adaptive management and monitoring strategy for Covered Species and natural communities.	The project, with mitigation, will provide effective adaptive management and monitoring strategies for impacted Covered Species and natural communities in the project site.
Provide a secured funding source to implement the Plans.	Not applicable. The County and relevant agencies are responsible for providing secured funding to implement the ECMSCP.

Project Effects Relevant to Guideline C

The project would not impact any RPO wetlands, as the only RPO wetland within the survey area is a hillside seep outside of the project site that will have a 50-foot wetland buffer. However, the project would impact sensitive habitat lands as defined by the RPO because the project site supports populations of County List A species: Jacumba milkvetch, Tecate tarplant and long-spined spineflower. Impacts to sensitive habitat lands would be **potentially significant** (**Impacts BI-P-1, BI-P-2, BI-P-3, and BI-P-4**).

Project Effects Relevant to Guideline D

The project site does not support CSS habitat and would not impact CSS habitat. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline E

The project conforms to the goals and requirements as outlined in all applicable regional planning efforts. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline F

The project is not within the approved South County MSCP; rather, it is within the in-process ECMSCP, and the BMO is also not applicable. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline G

CDFW (formerly CDFG) and the California Resources Agency provide a flowchart that identifies whether CSS habitat should be designated as higher, intermediate, or lower potential value (CDFG and California Resources Agency 1993). Higher potential value coastal sage scrub must be large in size and the densest CSS in the subregion. The project does not support CSS, and thus the project could not preclude connectivity between areas of high habitat values as defined by the CSS NCCP guidelines. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline H

The project is not within the approved South County MSCP; rather, it is within the in-process ECMSCP, and the BMO is also not applicable. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline I

Narrow endemic species are evaluated under the County Guidelines for Determining Significance for Biological Resources. No narrow endemic species have been observed on-site or have high potential to occur on-site. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline J

No federally or state-listed plant or animal species have been observed on the project site. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline K

Long-term direct impacts to migratory birds and active migratory bird nests and/or eggs protected under the MBTA resulting from project construction would be **potentially significant** (**Impact BI-P-5**).

Project Effects Relevant to Guideline L

Impacts to 0.3 acre (Phase I) and 4.3 acre (Phase II) of marginally suitable golden eagle nesting habitat and 97.9 acres (Phase I) and 297.8 acres (Phase II) of foraging habitat would be **potentially significant** (**Impact BI-P-6**).

2.2.4 Cumulative Impact Analysis

Cumulative impacts for a project would be significant if the incremental effects of the individual project are considerable when combined with the effects of past projects, other current projects, and probable future projects. Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting, provides a list of cumulative projects. These projects include other solar projects, a wind project, and a public facilities improvement project. Some of these projects involve related improvements such as electrical substations and subsurface or overhead generation-tie lines. Several of those that have been analyzed under CEQA have the potential to impact biological resources. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period. The cumulative study boundary includes anticipated projects within 7.7 miles of the project site. The projects included in Table 1-4 total approximately 1,970 acres. These projects are likely to result in potential impacts to biological resources within a similar elevational range and vegetation community assemblage that provide habitat for in-kind candidate, sensitive, and special-status plants and wildlife.

2.2.4.1 Cumulative, Candidate, Sensitive, or Special-Status Species

For a significant cumulative impact to special-status plant or wildlife species to occur, the cumulative projects would need to result in the loss of the same special-status species and/or their habitat to such an extent that the species become more limited in their distribution, population size, or available suitable habitat within the cumulative analysis area.

Some of the special-status plant species observed on-site are limited in distribution and require specific habitat conditions. In the absence of the proposed mitigation, the project, combined with reasonably foreseeable cumulative projects, would have the potential to reduce the distribution and/or overall population size of one or more of these special-status plant species.

In general, the cumulative projects, in conjunction with the project, have the potential to result in significant cumulative impacts to candidate, sensitive, and special-status species. However, through implementation of the following mitigation measures (MMs), **the project would not contribute to cumulatively considerable impacts** related to Candidate, Sensitive, or Special-Status Species**:**

- **M-BI-1 Biological Monitoring**
- **M-BI-2 Temporary Construction Fencing**
- **M-BI-3 Habitat Preservation**
- **M-BI-4 Resource Management Plan (RMP)**
- **M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance**
- **M-BI-6 Biological Monitoring of Stormwater Pollution Prevention Plan (SWPPP)**
- **M-BI-7 Prevention of Chemical Pollutants**
- **M-BI-8 Prevention of Invasive Plant Species**

- **M-BI-9 Operations and Maintenance Signage**
- **M-BI-10 Noise Reduction**
- **M-WF-1 Fire Protection Plan**

2.2.4.2 Cumulative, Riparian Habitat or Sensitive Natural Community

For cumulative effects to occur, cumulative projects would have to result in the loss of the same vegetation communities as the project to such an extent that the vegetation communities become limited in acreage or extent within the cumulative analysis area. A cumulative impact to native vegetation communities could occur if the cumulative projects use all available land for mitigation, resulting in any further impacts to special-status vegetation communities not being able to be adequately mitigated within the cumulative analysis study area.

In the absence of mitigation, the project, combined with the reasonably foreseeable cumulative projects in the biological cumulative analysis study area would contribute to adverse impacts on sensitive vegetation communities. In general, the cumulative projects, in conjunction with the project, have the potential to result in significant cumulative impacts to candidate, sensitive, and special-status species. However, through implementation of the following MMs, **the project would not contribute to cumulatively considerable impacts** related to Riparian Habitat or Sensitive Natural Communities**:**

- **M-BI-1 Biological Monitoring**
- **M-BI-2 Temporary Construction Fencing**
- **M-BI-3 Habitat Preservation**
- **M-BI-4 Resource Management Plan (RMP)**
- **M-BI-6 Biological Monitoring of Stormwater Pollution Prevention Plan (SWPPP)**
- **M-BI-7 Prevention of Chemical Pollutants**
- **M-BI-8 Prevention of Invasive Plant Species**
- **M-BI-9 Operations and Maintenance Signage**
- **M-BI-11 Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways**
- **M-WF-1 Fire Protection Plan**

2.2.4.3 Cumulative, Jurisdictional Wetlands and Waterways

For cumulative effects to occur, cumulative projects would have to result in the loss of aquatic resources to such an extent that aquatic resources within the watershed become limited in acreage or extent within the cumulative analysis area. A cumulative impact to aquatic resources could occur if the cumulative projects developed impermeable surfaces, resulting in any further impacts to aquatic resource not being able to be adequately mitigated within the shared watershed.

In addition to the proposed project, ongoing and prospective projects within the cumulative study boundary are at various stages of development. Each of these projects increase the potential for temporary and permanent impacts to aquatic resources, due to staging within aquatic resources during construction, routine maintenance of structures within aquatic resources, grading, or development of impermeable surfaces.

Aquatic resources on-site are typical and consistent within the watershed. Aquatic resources on-site consist largely of first-order ephemeral streams and disturbed wetlands (constructed defunct freshwater pond). In the absence of mitigation, cumulative impacts could affect connectivity of aquatic resources within the watershed, negatively impact water quality through sedimentation or the introduction of chemical pollutants, and result in a loss of habitat or reduction in its quality for dependent species. in In the absence of mitigation, cumulative projects, in combination with the project, would have the potential to result in significant cumulative impacts to aquatic resources; however, mitigation measures are required by state regulations that would reduce potential impacts of the project and of the cumulative projects. . In general, the cumulative projects, in conjunction with the project, have the potential to result in significant cumulative impacts to candidate, sensitive, and special-status species. However, through implementation of the following MMs, **the project would not contribute to cumulatively considerable impacts** related to Jurisdictional Wetlands and Waterways**:**

- **M-BI-1 Biological Monitoring**
- **M-BI-2 Temporary Construction Fencing**
- **M-BI-3 Habitat Preservation**
- **M-BI-4 Resource Management Plan (RMP)**
- **M-BI-6 Biological Monitoring of Stormwater Pollution Prevention Plan (SWPPP)**
- **M-BI-7 Prevention of Chemical Pollutants**
- **M-BI-8 Prevention of Invasive Plant Species**
- **M-WF-1 Fire Protection Plan**

2.2.4.4 Cumulative, Wildlife Movement and Nursery Sites

A cumulative impact to wildlife movement and/or nursery sites would disrupt wildlife movement in the region through permanent loss or degradation of wildlife corridor or rearing habitat, or impediments to wildlife corridor access. The project combined with the reasonably foreseeable cumulative projects would result in energy-related and other development throughout southeastern San Diego County. In the absence of mitigation, this has potential to disrupt wildlife movement in the region, particularly for terrestrial species with large territories such as mule deer and mountain lion. However, through implementation of the following MMs, **the project would not contribute to cumulatively considerable impacts** related to Wildlife Movement and Nursery Sites**:**

- **M-BI-1 Biological Monitoring**
- **M-BI-2 Temporary Construction Fencing**
- **M-BI-3 Habitat Preservation**
- **M-BI-4 Resource Management Plan (RMP)**
- **M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance**
- **M-BI-6 Biological Monitoring of Stormwater Pollution Prevention Plan (SWPPP)**
- **M-BI-9 Operations and Maintenance Signage**
- **M-BI-10 Noise Reduction**
- **M-BI-12 Wildlife Corridor**

2.2.4.5 Cumulative, Local Policies, Ordinances, and Adopted Plans

A cumulative impact to regional planning would occur if the reasonably foreseeable cumulative projects, combined with the project, conflict with one or more local policies or ordinances protecting biological resources. The projects within the biological cumulative analysis study area would be within the future ECMSCP plan area, as would the project. The cumulative projects under jurisdiction of the County would be reviewed for consistency with the in-progress ECMSCP plan. Nonetheless, in the absence of mitigation, cumulative impacts would conflict with one or more local policies or ordinances protecting biological resources. However, through implementation of the following MMs**, the project would not contribute to cumulatively considerable impacts** related to local policies, ordinances, and adopted plans:

- **M-BI-1 Biological Monitoring**
- **M-BI-2 Temporary Construction Fencing**
- **M-BI-3 Habitat Preservation**
- **M-BI-4 Resource Management Plan (RMP)**
- **M-BI-6 Biological Monitoring of Stormwater Pollution Prevention Plan (SWPPP)**
- **M-BI-7 Prevention of Chemical Pollutants**
- **M-BI-9 Operations and Maintenance Signage**
- **M-WF-1 Fire Protection Plan**

2.2.5 Significance of Impacts Prior to Mitigation

Prior to mitigation, the project would potentially result in significant direct and indirect impacts to biological resources, both temporary and permanent. These impacts are summarized in Table 2.2-6.

Table 2.2-6. Summary of Significant Impacts Prior to Mitigation

Relevant Report Section	Impact Number	Impacted Resource	Impact Type	Guideline Number and Letter
Guideline 4.1: The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special-status species listed in local or regional plans, policies, or regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.				
2.2.3.1	Impact BI-SP-1	**Special-status Plants**, County List A and B species	Short-term direct	4.1 B
2.2.3.1	Impact BI-SP-2	**Special-status Plants**, County List A and B species	Long-term direct	4.1 B
2.2.3.1	Impact BI-SP-3	**Special-status Plants**, County List C and D species	Long-term direct	4.1 C
2.2.3.1	Impact BI-W-1	Special-status Animals, County Group 1	Short-term direct	4.1 B
2.2.3.1	Impact BI-W-2	**Special-status Animals**, County Group 1 or SSC Impacts to active nests or young of nesting County Group 1 or SSC	Short-term direct	4.1 B
2.2.3.1	Impact BI-W-3	**Special-status Animals**, County Group 1 or SSC Removal of suitable habitat of County Group 1 species	Long-term direct	4.1 B
2.2.3.1	Impact BI-W-4	**Special-status Animals**, County Group 2 Impacts to active nests or young of nesting County Group 2	Short-term direct	4.1 C
2.2.3.1	Impact BI-W-5	Special-status Animals, County Group 2	Long-term direct	4.1 C

Relevant Report Section	Impact Number	Impacted Resource	Impact Type	Guideline Number and Letter
2.2.3.1	Impact BI-W-6	Special-status Animals, Golden eagle	Long-term direct	4.1 E
2.2.3.1	Impact BI-W-7	**Special-status Animals**, Loss of foraging habitat for raptors	Long-term direct	4.1 F
2.2.3.1	Impact BI-W-8	Loss of Core Wildlife Area, Loss of habitat	Long-term direct	4.1 G
2.2.3.1	Impact BI-SP-4	**Special-status Plants**, County List A and B species	Short-term indirect	4.1 H
2.2.3.1	Impact BI-SP-5	**Special-status Plants**, County List A and B species	Long-term indirect	4.1 H
2.2.3.1	Impact BI-W-9	Special-status Animals Detected or with High Potential to Occur	Short-term indirect	4.1 H
2.2.3.1	Impact BI-W-10	Special-status Animals Detected or with High Potential to Occur	Long-term indirect	4.1 H
Guideline 4.2: The project would have a substantial adverse effect on riparian habitat, or another sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.				
4.2	Impact BI-V-1	Special-status Upland Vegetation Communities	Short-term direct	4.2 A
4.2	Impact BI-V-2	Special-status Upland Vegetation Communities	Long-term direct	4.2 A
4.2	Impact BI-JR-1	Jurisdictional Resources	Short-term direct	4.2 B
4.2	Impact BI-JR-2	Jurisdictional Resources	Long-term direct	4.2 B
4.2	Impact BI-JR-3	Jurisdictional Resources	Short-term indirect	4.2 B
4.2	Impact BI-JR-4	Jurisdictional Resources	Long-term indirect	4.2 B
4.2	Impact BI-V-3	Special-status Upland Vegetation Communities	Short-term indirect	4.2 D
4.2	Impact BI-V-4	Special-status Upland Vegetation Communities	Long-term indirect	4.2 D
Guideline 4.3: The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.				
5.2	Impact BI-JR-1	Jurisdictional Resources	Short-term direct	4.3 B
5.2	Impact BI-JR-2	Jurisdictional Resources	Long-term direct	4.3 B
5.2	Impact BI-JR-3	Jurisdictional Resources	Short-term indirect	4.3 B
5.2	Impact BI-JR-4	Jurisdictional Resources	Long-term indirect	4.3 B
Guideline 4.4: The project would interfere substantially with the movement of a 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.				
6.2	Impact BI-WM-1	Foraging and Breeding Habitat	Short-term direct	4.4 A
6.2	Impact BI-WM-2	Foraging and Breeding Habitat	Long-term direct	4.4 A
6.2	Impact BI-WM-3	Foraging and Breeding Habitat	Short-term and long-term indirect	4.4 A
6.2	Impact BI-WM-4	Wildlife Connectivity	Short-term and long-term direct	4.4 A
Guideline 4.5: The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state HCP.				
7.2	Impact BI-P-1	Sensitive Habitat Lands	Short-term direct	4.5 C
7.2	Impact BI-P-2	Sensitive Habitat Lands	Long-term direct	4.5 C
7.2	Impact BI-P-3	Sensitive Habitat Lands	Short-term indirect	4.5 C

Relevant Report Section	Impact Number	Impacted Resource	Impact Type	Guideline Number and Letter
7.2	Impact BI-P-4	Sensitive Habitat Lands	Long-term indirect	4.5 C
7.2	Impact BI-P-5	Migratory Bird Treaty Act	Long-term direct	4.5 K
7.2	Impact BI-P-6	Bald and Golden Eagle Protection Act	Long-term direct	4.5 L

2.2.5.1 Candidate, Sensitive, or Special-Status Species

Project Effects Relevant to Guideline A

No federally or state-listed endangered or threatened species have been detected on-site or have high potential to occur on-site. The loss of western spadefoot (federally proposed threatened [FPT], County Group 2, and state SSC) due to construction-related activities would constitute a **potentially significant impact** (**Impact BI-W-1**). The loss of suitable western spadefoot toad habitat could adversely affect the long-term viability of the local population and would constitute a **potentially significant impact** (**Impact BI-W-5**).

No state-listed endangered or threatened species have been detected on-site, nor is there a high potential for their occurrence. Loss of Crotch's bumble bee (state Candidate Species) due to construction-related activities would be **potentially significant** (**Impact BI-B-1**). Loss of suitable Crotch's bumble bee habitat would affect the local long-term survival of this species and would be a **potentially significant impact** (**Impact BI-W-5**).

Project Effects Relevant to Guideline B

Short-term direct impacts to County List A plant species would be **potentially significant** (**Impact BI-SP-1**). Three County List A species would have long-term direct impacts from the proposed project: Jacumba milkvetch, long-spined spineflower, and Tecate tarplant. These impacts would be **potentially significant** (**Impact BI-SP-2**).

Short-term direct impacts to County List B plant species would be **potentially significant** (**Impact BI-SP-1**). Two County List B species would have long-term direct impacts from the proposed project: sticky geraea and desert beauty. These impacts would be **potentially significant** (**Impact BI-SP-2**).

Loss of special-status wildlife species (County Group 1 or state SSC animals), including individual reptiles and small mammals, from construction-related activities would be **potentially significant** (**Impact BI-W-1**).

If any active nests or the young of nesting special-status bird species (County Group 1 or SSC) are directly impacted through project construction, these impacts would be considered **potentially significant**, based on the MBTA (**Impact BI-W-2**). Loss of suitable nesting/foraging habitat would be a **potentially significant impact** (**Impact BI-W-3**).

Project Effects Relevant to Guideline C

There will be no direct impacts to County List C species resulting from implementation of the project. Two County List D species would have long-term direct impacts resulting from the project: Colorado Desert larkspur and pride-of-California. These impacts would be **potentially significant** (**Impact BI-SP-3**).

Payson's jewel flower and low bush monkeyflower occur within the survey area but would not be directly impacted by the project. The project would not substantially affect the long-term survival of these species, and impacts would be **less than significant**.

If active nests or young of nesting County Group 2 bird species are directly impacted, these impacts would be **potentially significant** (**Impact BI-W-4**).

Six County Group 2 species were detected within the survey area: western spadefoot, California horned lark, western bluebird, mule deer, and mountain lion. Impacts related to the loss of suitable habitat would affect the local long-term survival of County Group 2 species and would be potentially **significant** (**Impact BI-W-5**).

Project Effects Relevant to Guideline D

No arroyo toads have been detected in the project site. Therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline E

Golden eagles have high potential to occur on-site but were not observed during surveys. Long-term direct impacts to 4.7 acres of marginally suitable nesting habitat and 591.9 acres of suitable foraging habitat would be **potentially significant** (**Impact BI-W-6**).

Project Effects Relevant to Guideline F

Foraging habitat for raptors is present throughout the project site. Therefore, this impact would be **potentially significant** (**Impact BI-W-5**).

Project Effects Relevant to Guideline G

The project site is greater than 500 acres and supports multiple wildlife species, meeting the definition of a core wildlife area. As such, the project would impact the viability of a core wildlife area and impacts would be **potentially significant** (**Impact BI-W-6**).

Project Effects Relevant to Guideline H

Short-term indirect impacts to special-status plant species would be **potentially significant** (**Impact BI-SP-3**). Long-term indirect impacts to special-status plant species would be **potentially significant** (**Impact BI-SP-4**). Short-term indirect impacts to special-status animal species would be **potentially significant** (**Impact BI-W-7**). Long-term indirect impacts to special-status animal species would be **potentially significant** (**Impact BI-W-8**).

Project Effects Relevant to Guideline I

Burrowing owl has not been observed on or adjacent to the project site and does not have high potential to occur on-site, thus the project is unlikely to impact occupied burrowing owl habitat. Therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline J

The project site does not support suitable coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) habitat on-site; therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline K

The project site does not contain spiny redberry (*Rhamnus crocea*), the larval hostplant of Hermes copper, rendering the project unsuitable for this species. Therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline L

No ground-nesting raptors (e.g., northern harrier) are expected to nest on-site. Therefore, no impacts to the nesting success of those species as a result of the project are anticipated. However, the project could potentially affect the nesting success of tree-nesting raptors on-site via habitat removal and noise impacts. Therefore, this impact would be **potentially significant** (**Impact BI-W-2**).

2.2.5.2 Riparian Habitat or Sensitive Natural Community

Project Effects Relevant to Guideline A

Short-term direct impacts to special-status upland vegetation communities would be **potentially significant** (**Impact BI-V-1**). Long-term direct impacts to special-status upland vegetation communities would be **potentially significant** (**Impact BI-V-2**).

Project Effects Relevant to Guideline B

Short-term direct impacts to jurisdictional resources would be **potentially significant** (**Impact BI-JR-1**). Long-term direct to jurisdictional resource impacts would be **potentially significant** (**Impact BI-JR-2**). Short-term indirect impacts to jurisdictional resources would be **potentially significant** (**Impact BI-JR-3**). Long-term indirect impacts to jurisdictional resources would be **potentially significant** (**Impact BI-JR-4**).

Project Effects Relevant to Guideline C

A GMMP has been prepared for the proposed project (see Appendix G.2). Incorporation of **PDF-HY-2** would ensure that the project would implement the GMMP. With the implementation of **PDF-HY-2**, the total volume and rate of groundwater extracted from Highland Center Well and Park Wells would be monitored and documented throughout the duration of the project pumping. The implementation of **PDF-HY-2** would also provide for monitoring of the overall groundwater level in the project site. The GMMP would ensure that pumping does not significantly impact existing well users or groundwater-dependent vegetation. Therefore, impacts related to drawdown detrimental to groundwater-dependent habitat would be **less than significant.**

Project Effects Relevant to Guideline D

Short-term indirect impacts to special-status upland vegetation communities would be **potentially significant** (**Impact BI-V-3**). Long-term indirect impacts to special-status upland vegetation communities would be **potentially significant** (**Impact BI-V-4**).

Project Effects Relevant to Guideline E

The RPO wetland identified within the survey area but outside of the project site is isolated and does not provide connectivity with other wetland resources. There are no proposed impacts to this wetland or the wetland buffer; therefore, the project adheres to this guideline and **no impacts** are anticipated.

2.2.5.3 Jurisdictional Wetlands and Waterways

No federal wetlands were identified in the survey area. The project would permanently impact 0.01 acre (25 linear feet) of WWOS and 0.17 acre (3,813 linear feet) of WOS. The project would temporarily impact 0.64 acre (12,507 linear feet) of WOS. Long-term direct impacts to WWOS and WOS would be **potentially significant** (**Impact BI-JR-2**). Long-term indirect impacts to WWOS and WOS would be **potentially significant** (**Impact BI-JR-4**).

2.2.5.4 Wildlife Movement and Nursery Sites

Project Effects Relevant to Guideline A

Short-term direct impacts to suitable foraging and breeding habitat for species that use the project site would be **potentially significant** (**Impact BI-WM-1**). Long-term direct impacts to suitable foraging and breeding habitat would be **potentially significant** (**Impact BI-WM-2**). Short-term and long-term indirect impacts to wildlife access to foraging and breeding habitat would be **potentially significant** (**Impact BI-WM-3**).

The project's northern portion would result in fragmentation within the FCA, potentially minimizing connectivity across the east-west section of the ECMSCP FCA parcels north of Tule Jim Road, resulting in **potentially significant impacts** to wildlife connectivity (**Impact BI-WM-4**).

Project Effects Relevant to Guideline B

The project would not substantially interfere with a local regional wildlife corridor or linkage, and impacts would be **less than significant.**

Project Effects Relevant to Guideline C

The project would not create any artificial wildlife corridors and would have a **less than significant** impact.

Project Effects Relevant to Guideline D

The project would not substantially interfere with a local regional wildlife corridor or linkage, and impacts would be **less than significant.**

Project Effects Relevant to Guideline E

The project would not substantially interfere with a local regional wildlife corridor or linkage, and impacts would be **less than significant.**

Project Effects Relevant to Guideline F

The project would not substantially interfere with a local regional wildlife corridor or linkage, and impacts would be **less than significant.**

2.2.5.5 Local Policies, Ordinances, and Adopted Plans

Project Effects Relevant to Guideline A

The project site does not support CSS habitat and would not impact CSS habitat. Therefore, **no impacts** are anticipated.

Project Effects Relevant to Guideline B

The project would be consistent with the objectives of ECMSCP (County of San Diego 2021) as shown in Table 2.2-5. Impacts would be **less than significant**.

Project Effects Relevant to Guideline C

Impacts to sensitive habitat lands would be **potentially significant** (**Impact BI-P-1, -2, -3, and -4**).

Project Effects Relevant to Guideline D

The project site does not support CSS habitat and would not impact CSS habitat. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline E

The project conforms to the goals and requirements as outlined in all applicable regional planning efforts. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline F

The project is not within the approved South County MSCP; it is within the in-process ECMSCP, and the BMO is also not applicable. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline G

The project does not support CSS, and thus the project could not preclude connectivity between areas of high habitat values as defined by the CSS NCCP guidelines. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline H

The project is not within the approved South County MSCP; it is within the in-process ECMSCP, and the BMO is also not applicable. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline I

No narrow endemic species have been observed on-site or have high potential to occur on-site. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline J

No federally or state-listed plant or animal species have been observed in the project site. Therefore, **no impacts** would occur.

Project Effects Relevant to Guideline K

Long-term direct impacts to migratory birds and active migratory bird nests and/or eggs protected under the MBTA resulting from project construction would be **potentially significant** (**Impact BI-P-5**).

Project Effects Relevant to Guideline L

Impacts to marginally suitable golden eagle nesting habitat and foraging habitat would be **potentially significant** (**Impact BI-P-6**).

2.2.6 Mitigation Measures and Project Design Features

2.2.6.1 Mitigation Measures

Mitigation measures **M-BI-1** through **M-BI-13** and **M-WF-1** would mitigate potential impacts under **Impacts BI-SP-1** through **BI-SP-5**, **Impacts BI-W-1** through **BI-W-10**, **Impacts BI-V-1** through **BI-V-4**, **Impacts BI-JR-1** through **BI-JR-4**, **Impacts BI-WM-1** through **BI-WM-4**, and **Impacts BI-P-1** through **BI-P-6** as follows.

M-BI-1 Biological Monitoring.

1. To prevent inadvertent disturbance to sensitive resource areas outside the approved area of impact, a County-approved biologist (Project Biologist) shall be contracted to perform biological monitoring during grading, clearing, grubbing, trenching, construction, and decommissioning activities. The contract for biological monitoring will be provided to the County by the Applicant and shall include an agreement that this will be completed, and a memorandum of understanding (MOU) between the biological consulting company and the County shall be executed. The contract shall include a cost estimate for the monitoring work and reporting.
    a. The Project Biologist shall perform the monitoring duties before, during, and after construction pursuant to the most current version of the County guidelines (County of San Diego 2010b). In addition to performing monitoring duties pursuant to the most current version of the County guidelines, the Project Biologist shall also perform the following duties:
        i. Conduct required preconstruction surveys as applicable and outlined M-BI-5 below.
        ii. Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas prior to clearing, grubbing, or grading and clarifying that the Project Biologist has the authority to halt work that could harm or harass a protected species. Worker Environmental Awareness Program training will be provided by the Project Biologist for minimizing harm to or harassment of wildlife encountered during construction with the contractor and other key construction personnel prior to clearing, grubbing, or grading.
        iii. Review the construction area in the field with the contractor in accordance with the final grading plan and conduct a field review of the staking to be set by the surveyor, designating the limits of all construction activity prior to clearing, grubbing, or grading.
        iv. Monitor vegetation clearing, grubbing, and grading to ensure against direct and indirect impacts on biological resources that are intended to be protected and preserved.

v. Flush special-status species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earthmoving activities. If brush-clearing and earthmoving activities take place within the bird breeding season, the process outlined in M-BI-5 will be followed.

vi. Verify that grading plans include a stormwater pollution prevention plan (SWPPP) (if required pursuant to provisions of the State Water Resources Control Board 2009-0009-DWQ Construction General Permit, or equivalent applying the standards set forth in the County of San Diego Stormwater Standards Manual) to address hydrology impacts; see M-BI-6.

vii. Periodically monitor the construction site to see that dust is minimized according to the Fugitive Dust Control Plan and that temporarily impacted areas are revegetated as soon as possible.

viii. Periodically monitor the construction site to verify that light fixtures are directed away from open space and are shielded.

ix. Monitor the construction site so that cover and/or escape routes for wildlife from excavated areas are provided daily during vegetation clearing, grubbing, and grading. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighted down with sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and prior to sealing the exposed area at the end of the day) by a qualified biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.

x. Except as stated otherwise herein, biological monitoring is daily during vegetation clearing, grubbing, and grading. Once the photovoltaic (PV) field construction commences, the monitoring shall be weekly.

b. The cost of the monitoring shall be added to the grading bonds or bonded separately with County Planning and Development Services (PDS).

Documentation: The Applicant shall provide a copy of the biological monitoring contract, cost estimate, and MOU to the PDS. Additionally, the cost amount of the monitoring work shall be added to the grading bond cost estimate.

Timing: In each phase, prior to approval of any grading and or improvement plans and issuance of any grading or construction permits.

Monitoring: The PDS shall review the contract, MOU, and cost estimate or separate bonds for compliance with this condition. The cost estimate should be forwarded to the PDS project manager, for inclusion in the grading bond cost estimate, and grading bonds. The County Department of Public Works (DPW)/PDS shall add the cost of the monitoring to the grading bond costs.

2. To ensure that the biological monitoring occurs during the grading phase of the project, weekly monitoring logs will be provided to the Applicant and PDS project manager, and a final biological monitoring report shall be prepared. The Project Biologist shall prepare the final biological monitoring report. The reports shall substantiate the supervision of the grading activities and confirm that grading or construction activities did not impact any additional areas or any other sensitive biological resources. The final report shall conform to County guidelines (County of San Diego 2010b) and include the following items:
    a. Photos of the temporary fencing or flagging that was installed during the trenching, grading, or clearing activities
    b. Monitoring logs showing the date and time that the monitor was on-site
    c. Photos of the site after the grading and clearing activities

    Documentation: The Project Biologist shall prepare the final report and submit it to the PDS for review and approval.

    Timing: Prior to any occupancy, final grading release, or use of the premises in reliance of this permit, the final report shall be approved.

    Monitoring: The PDS shall review the final report for compliance with this condition and the report format guidelines. Upon approval of the report, PDS shall inform DPW that the requirement is complete, and the bond amount can be relinquished. If the monitoring was bonded separately, then PDS shall inform the bonding entity to release the bond back to the Applicant.
3. Compliance with this measure shall be required during decommissioning activities.

M-BI-2 **Temporary Construction Fencing.** Prior to issuance of permits in each phase, including clearing, grubbing, grading, and/or construction permits, the Project Applicant or its designee shall install fencing wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the Project Biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on plans. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence to the satisfaction of the Director of the San Diego County PDS (or designee) that work was conducted as authorized under the approved permits and associated plans.

M-BI-3 **Habitat Preservation.** To mitigate for impacts to sensitive vegetation communities, habitat for plant and wildlife species, and special-status plant and wildlife individuals, the Applicant shall provide an off-site biological open space easement (see M-BI-4 regarding the resource management plan [RMP] for the mitigation site).

To protect sensitive biological resources, pursuant to the ECMSCP, RPO, and CEQA, a biological open space easement will be granted over 447.93 acres of sensitive vegetation communities, special-status plant species, and habitat for special-status species. The project is estimated to impact sensitive vegetation communities that require mitigation as summarized in Table 10 of the Biological Resources Report (see below).

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Off-site Impacts (acres)	Impact Neutral (acres)	Total Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)	Preserved On-site (acres)	Off-site Mitigation (acres)
Phase 1									
Granitic Northern Mixed Chaparral (37131)	99.58	92.54	0	7.04	92.54	0.5:1	46.27	0	46.27
Redshank Chaparral (37300)	24.53	24.53	0	0	24.53	1:1	24.53	0	24.53
Granitic Chamise Chaparral (37210)	3.03	3.03	0	0	3.03	0.5:1	1.52	0	1.52
Montane Buckwheat Scrub (37K00)	1.97	1.97	0	0	1.97	1:1	1.97	0	1.97
Field/Pasture (18310)	0	0	0	0	0	0.5:1	0	0	0
Big Sagebrush Scrub (35210)	0	0	0	0	0	2:1	0	0	0
Disturbed (11300)	0	0	0	0	0	None	0	0	0
Bare Ground	2.56	2.52	0	0.04	2.52	None	0	0	0
Urban/ Developed (12000)	0	0	0	0	0	None	0	0	0
Open Coast Live Oak Woodland (71161)	0.32	0.32	0	0	0.32	3:1	Included in oak root zone mitigation	0	Included in oak root zone mitigation
Non-native Grassland (42200)	0	0	0	0	0	0.5:1	0	0	0
Tamarisk Scrub (63810)	0	0	0	0	0	3:1	0	0	0
Freshwater Seep (45400)	0	0	0	0	0	3:1	0	0	0
Southern Riparian Scrub (63300)	0	0	0	0	0	3:1	0	0	0
Freshwater (64140)	0	0	0	0	0	3:1	0	0	0
Coast Live Oak Woodland (71160)	0	0	0	0	0	3:1	0	0	0
Alkali Marsh (52300)	0	0	0	0	0	3:1	0	0	0
Oak Root Zone*	0.91	0.91	0	0	0.94	3:1	2.82	0	2.82

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Off-site Impacts (acres)	Impact Neutral (acres)	Total Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)	Preserved On-site (acres)	Off-site Mitigation (acres)
Total	**131.99**	**124.91**	**0**	**7.08**	**124.91**		**77.11**	**0**	**77.11**
Phase 2									
Granitic Northern Mixed Chaparral (37131)	136.91	126.33	0	49.68	126.33	0.5:1	63.17	0	63.17
Redshank Chaparral (37300)	121.67	119.35	0	2.71	119.35	1:1	119.35	0	119.35
Granitic Chamise Chaparral (37210)	62.04	61.56	0	7.41	61.56	0.5:1	30.78	0	30.78
Montane Buckwheat Scrub (37K00)	52.92	51.14	0	0.07	51.14	1:1	51.14	0	51.14
Field/Pasture (18310)	28.10	27.98	0	0	27.98	0.5:1	13.99	0	13.99
Big Sagebrush Scrub (35210)	15.38	15.38	0	0	15.38	2:1	30.76	0	30.76
Disturbed (11300)	10.01	10.01	0	0	10.01	None	0	0	0
Bare Ground	22.17	21.53	0	0.47	21.53	None	0	0	0
Urban/ Developed (12000)	0.03	0	0	0	0	None	0	0	0
Open Coast Live Oak Woodland (71161)	4.32	4.31	0	0	4.31	3:1	Included in oak root zone mitigation	0	Included in oak root zone mitigation
Non-Native Grassland (42200)	2.49	1.05	0	0	1.05	0.5:1	0.53	0	0.53
Tamarisk Scrub (63810)	0	0	0	0	0	3:1	0	0	0
Freshwater Seep (45400)	0.04	0.04	0	0	0.04	3:1	0.12	0	0.12
Southern Riparian Scrub (63300)	0	0	0	0	0	3:1	0	0	0
Freshwater (64140)	0	0	0	0	0	3:1	0	0	0
Coast Live Oak Woodland (71160)	0	0	0	0	0	3:1	0	0	0
Alkali Marsh (52300)	0	0	0	0.0	0	3:1	0	0	0

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Off-site Impacts (acres)	Impact Neutral (acres)	Total Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)	Preserved On-site (acres)	Off-site Mitigation (acres)
Oak Root Zone*	12.47	12.47	0	0	12.47	3:1	37.41	0	37.41
Total	**456.08**	**438.68**	**0**	**60.34**	**438.68**		**347.25**	**0**	**347.25**

*This is an overlay to the vegetation community layer and is not counted toward the total acreage of on-site habitats; it is only used in determining required mitigation.

The biological open space easement shall mitigate for project impacts to sensitive vegetation communities and habitat for wildlife species as shown in Table 10 of the Biological Resources Report (see above), thereby preserving compensatory habitat that provides equal or greater benefit to plant and wildlife species. This biological open space easement will be granted to the County or other approved conservation entity. Granting of this open space authorizes the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. This easement is for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. Granting of this open space authorizes the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. The only exceptions to this prohibition are (1) vegetation clearing by hand, by written order of the fire authority for reduction of an identified fire hazard; (2) activities conducted pursuant to an approved revegetation or RMP; (3) vector control by written order of the County; and (4) construction, use, and maintenance of approved multi-use, non-motorized trails. No trails have been approved as part of this project and would require subsequent environmental review and approval by PDS. Permanent signage indicating the area is a biological open space will be required and will be installed by the developer. As the project is proposed in two phases, two separate open space easements would be dedicated within the 447.93-acre area. The recordation of each open space easement would occur prior to grading of each phase.

Documentation: In each phase, the Applicant shall prepare the draft plats and legal descriptions of the easements, then submit them for preparation and recordation with the County Department of General Services, and concurrence with PDS, and pay all applicable fees associated with preparation of the documents.

Timing: Prior to approval of any plan or issuance of any permit in each phase, and prior to use of the premises in reliance of this permit the easements shall be recorded.

Monitoring: The Applicant shall prepare the easement documents and send them to PDS for pre-approval. The PDS shall pre-approve the language and estimated location of the easements before they are released to the Applicant for signature and subsequent recordation. Upon Recordation of the easements, the Applicant shall forward a copy of the recorded documents to PDS for satisfaction of the condition.

M-BI-4 **Resource Management Plan (RMP).** To provide for the long-term management of the proposed off-site biological open space easements, an RMP will be prepared and implemented (Appendix K). The final RMP cannot be approved until the following has been completed to the satisfaction of the Director of PDS as follows:

1. The plan will be prepared and approved pursuant to the most current version of the County's Report Format and Content Requirements for Biological Resources (County of San Diego 2010b).
2. The habitat land to be managed will be owned by a land conservancy or equivalent.
3. Open space easements will be dedicated to the County in perpetuity, unless conveyed to another public agency subject to approval by the Director of PDS.
4. A resource manager will be selected and approved, with evidence provided demonstrating acceptance of this responsibility.
5. The RMP funding mechanism to fund annual costs for basic stewardship shall be identified and approved by the County. The RMP funding mechanism will be identified and adequate to fund annual costs for implementation; typically determined by a Property Analysis Record as a non-wasting endowment.
6. A contract between the Applicant and County will be executed for the implementation of the RMP.
7. The final RMP shall have project-specific requirements for the following mitigation implementation and monitoring measures:
    a. Special-status plant species mitigation
8. Goals: The final RMP will accomplish the following:
    a. Preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the biological open space.
    b. Provide 2:1 replacement of Jacumba milkvetch, long-spined spineflower, and Tecate tarplant, and 1:1 replacement of sticky geraea and desert beauty per the attached Conceptual Revegetation Plan (Appendix L of the Biological Resources Report). If Jacumba milkvetch, long-spined spineflower, Tecate tarplant, sticky geraea, and desert beauty are transplanted or established from seed collected from individuals within the project footprint, then success of this Mitigation Program will be achieved for Phase I when at least 292 Jacumba milkvetch, 336 sticky geraea, and 769 desert beauty are documented within the off-site biological open space easement during 1 or more years in the 3-year monitoring period. Similarly, success of the Mitigation Program will be achieved for Phase II when 2,104 Jacumba milkvetch, 100 long-spined spineflower, 856 Tecate tarplant, 1,042 sticky geraea, and 74 desert beauty are documented within the open space.

Documentation: The Applicant shall prepare an RMP and submit it to PDS and pay all applicable review fees.

Timing: Prior to approval of any plan or issuance of any permit for each phase, and prior to use of the premises in reliance on this permit, the RMP shall be approved.

Monitoring: The PDS shall review the RMP for compliance with the content guidelines, the conceptual RMP, and this condition.

M-BI-5 **Avian Breeding and Special-status Wildlife Impact Avoidance.** This mitigation measure serves to avoid take of birds protected under the MBTA and California Fish and Game Code during the nesting season (M-BI-5(1)) and trampling or crushing special-status

amphibians, reptiles, and mammals ((M-BI-5(2)), and special-status invertebrates (M-BI-5(3)) and (M-BI-5(4)).

1. **Nesting Bird Survey.** To avoid any direct impacts on raptors and/or any migratory birds protected under the MBTA and California Fish and Game Code, removal of habitat that supports active nests on the proposed area of disturbance shall occur outside the nesting season for these species (which is January 15 through August 31, annually). If construction or decommissioning work must occur during the avian breeding season (January 15 to August 31, annually), the Applicant shall do the following:
    a. In consultation with the County, CDFW, and the USFWS prepare a Nesting Bird Management, Monitoring, and Reporting Plan (NBMMRP) to address avoidance of impacts to nesting birds.

       The Applicant will submit to the County the NBMMRP (see following for details) for review and approval prior to commencement of the project during the breeding season. The NBMMRP should include the following:
        i. Nest survey protocols describing the nest survey methodologies.
        ii. A management plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks.
        iii. A monitoring and reporting plan detailing the information to be collected for incorporation into a regular Nest Monitoring Log (NML) with sufficient details to enable USFWS and CDFW to monitor the Applicant's compliance with Fish and Game Code Sections 3503, 3503.5, 3511, and 3513.
        iv. A schedule for the submittal (usually weekly) of the NML.
        v. Standard buffer widths deemed adequate to avoid or minimize significant project-related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks (i.e., 300 feet for nests of passerines and 500 feet for nests of raptors). The NBMMRP will outline a nest buffer reduction process to be approved by USFWS, CDFW, and PDS.
        vi. A detailed explanation of how the buffer widths were determined.
        vii. All measures the Applicant will implement to preclude birds from utilizing project-related structures (i.e., construction equipment, facilities, or materials) for nesting.
    b. Conduct preconstruction nesting bird surveys within 72 hours of construction-related activities; conduct preconstruction survey sweeps immediately prior to ground-disturbing activities; and implement appropriate avoidance measures for identified nesting birds in the NBMMRP. Resurvey, if construction activities are halted for 10 consecutive days.
    c. Conduct surveys beyond the project site —300 feet for passerine birds and 500 feet for raptors—to determine presence of nesting birds that the project activities may affect. The survey protocols shall include a detailed description of methodologies utilized by CDFW-approved avian biologists to search for nests and describe avian behaviors that indicate active nests. The protocols shall include but are not limited to the size of the project site being surveyed, method of search, and behavior that indicates active nests.

d. Each nest identified in the project site shall be included in the NML. The NMLs should be updated daily and submitted to the CDFW weekly. Since the purpose of the NMLs is to allow the CDFW to track compliance, the NMLs shall include information necessary to allow comparison between nests protected by standard buffer widths recommended for the project (300 feet for passerine birds, 500 feet for raptors) and nests whose standard buffer width was reduced by encroachment of project-related activities. The NMLs shall provide a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. The NMLs shall allow for tracking the success and failure of the buffers and would provide data on the adequacy of the buffers for certain species.

e. The Applicant will rely on its avian biologists to determine the appropriate standard buffer widths for nests within the project corridor/footprint to employ based on the sensitivity levels of specific species or guilds of avian species. The determination of the standard buffer widths shall be site- and species-/guild-specific and data-driven and not based on generalized assumptions regarding all nesting birds. The determination of the buffer widths shall be developed in the NBMMRP approved by the USFWS, CDFW, and PDS, and will consider the following factors:

    i. Nesting chronologies
    ii. Geographic location
    iii. Existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise)
    iv. Type and extent of disturbance (e.g., noise levels and quality—punctuated, continual, ground vibrations—blasting-related vibrations proximate to tern colonies are known to make the ground-nesting birds flush the nests)
    v. Visibility of disturbance
    vi. Duration and timing of disturbance
    vii. Influence of other environmental factors
    viii. Species' site-specific level of habituation to the disturbance

Application of the standard buffer widths shall avoid the potential for project-related nest abandonment and failure of fledging and minimize any disturbance to the nesting behavior. If project activities cause or contribute to a bird being flushed from a nest, the buffer must be widened. This measure does not apply to nests that are started on construction equipment or panels or supporting structures.

Documentation: The Project Biologist shall prepare the final report and submit it to the PDS for review and approval.

Timing: Surveys shall be conducted prior to any clearing, grubbing, trenching, grading, or any land disturbances during the avian breeding season. Prior to any occupancy, final grading release, or use of the premises in reliance of this permit for each phase, the final report shall be approved.

Monitoring: The PDS shall review the final report for compliance with this condition and the report format guidelines. Upon approval of the report, PDS shall inform the Applicant that the requirement is complete, and the bond amount can be relinquished. If the monitoring was bonded separately, then the PDS shall inform DPW to release the bond back to the Applicant.

2. **Special-Status Species Preconstruction Surveys and Relocation Plan.** Prior to construction, the Applicant shall develop preconstruction surveys for special-status terrestrial reptiles (e.g., Southern California legless lizard, coast horned lizard, California glossy snake, red-diamond rattlesnake, rosy boa, and San Diego ringneck snake,), small terrestrial mammals (i.e., San Diego black-tailed jackrabbit, Dulzura pocket mouse, northwestern San Diego pocket mouse, pallid San Diego pocket mouse, and southern grasshopper mouse), bats (i.e., pallid bat, greater western mastiff bat, western red bat, small-footed myotis, long-eared myotis), and mule deer, mountain lion, and ringtail documented on-site or with high potential to occur on-site. The plan shall at minimum include the timing and locations where surveys should be conducted; if and species are confirmed, provide the habitat and conditions in the proposed relocation site(s); the methods that would be used for trapping and relocating the individual species; and the method for documenting/recording the species and number of animals relocated. The plan shall be submitted to the County by a qualified biologist prior to any ground-disturbing activities within potentially occupied habitat.

   Preconstruction Surveys. No more than 3 days prior to construction, a qualified biologist shall conduct a preconstruction survey within areas of suitable habitat for special-status species wildlife documented on-site (i.e., Cooper's hawk, sharp-shinned hawk, Bell's sage sparrow, turkey vulture, Southern California legless lizard, coast horned lizard, San Diego black-tailed jackrabbit, San Diego desert woodrat, coastal whiptail, California horned lark, western bluebird, mule deer, and mountain lion) as well as those with high potential to occur (i.e., southern California rufous-crowned sparrow, golden eagle, long-eared owl, red-shouldered hawk, northern harrier, white-tailed kite, prairie falcon, loggerhead shrike, Lewis' woodpecker, California glossy snake, red-diamond rattlesnake, pallid bat, Dulzura pocket mouse, northwestern San Diego pocket mouse, pallid San Diego pocket mouse, greater western mastiff bat, southern grasshopper mouse, mountain quail, rosy boa, San Diego ringneck snake, ringtail, western red bat, small-footed myotis, long-eared myotis, and monarch butterfly). The biologist shall look for special-status species that may be located within or immediately adjacent to the project work areas, as permitted by access. If determined by the qualified biologist that, based on the construction activities, time of year, and presence/location of special-status wildlife species, relocation of special-status wildlife species is necessary, relocation will occur to nearby undisturbed areas within suitable habitat in the off-site open space easements as specified in the plan and a California scientific collecting permit (SCP) (if applicable), but as close to their origin as possible (consistent with the approved plan). The biologist relocating the species shall possess a California SCP to handle these species if required by applicable CDFW regulations.

   A qualified biologist shall be present during initial ground-disturbing activities (i.e., vegetation removal) immediately adjacent to or within the vegetation communities and/or disturbed habitats that could support populations of special-status wildlife species to monitor vegetation removal and topsoil salvaging and stockpiling, where applicable. If special-status wildlife species are detected in the work area during biological monitoring, the individual(s) will be documented and relocated as per the approved Plan and in accordance with the SCP conditions as applicable.

Documentation: The Project Biologist shall prepare the final survey report and relocation plan and submit it to the PDS for review and approval.

Timing: Surveys shall be conducted prior to any clearing, grubbing, trenching, grading, or any land disturbances. Prior to final grading release, or use of the premises in reliance of this permit for each phase, the final survey report and Relocation Plan shall be approved.

Monitoring: The PDS shall review the final survey report and Relocation Plan for compliance with this condition and the report format guidelines. Upon approval of the report, PDS shall inform the Applicant that the requirement is complete, and the bond amount can be relinquished.

3. To avoid impacts to nesting birds and other special-status wildlife species during decommissioning, the project operator shall be required to implement the measures outlined in subsections (1) and (2) prior to undertaking decommissioning activities.

4. **Crotch's bumblebee Habitat Assessment and Surveys.** This mitigation measure shall only be required if Crotch's bumble bee remains as a candidate state endangered species or is listed as a state endangered species at the time of project construction.

    a. **Habitat assessment.** If not previously completed, or if surveys are no longer valid for any reason, a biologist with demonstrated experience with Crotch's bumblebee will conduct a desktop habitat assessment to determine the presence of suitable habitat for Crotch's bumble bee within the project site. This assessment will evaluate historical and current species distribution, proximity to the last known sighting, and potential foraging (including native and nonnative), nesting, and overwintering resources. Field verification surveys will be conducted during the floral blooming period, typically April through August, and will include an in-person project site observation, quantification of blooming vegetation (e.g., percent cover or a scale), and an assessment of plant diversity.

    Documentation: The qualified Biologist shall prepare the final habitat assessment report and submit it to the CDFW for review and approval for each phase.

    b. **Focused Surveys.** If the habitat assessment and field verification survey indicate a high likelihood for take of the species, occupancy will be assumed, or, a proposed survey protocol will be submitted to the Wildlife Agencies for review. If surveys are proposed, a survey methodology will be designed that is project- and site-specific, including the qualifications of the biologist conducting the surveys. The survey methodology will follow the general guidelines and best practices outlined in CDFW's "Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species" (June 6, 2023). If surveys are conducted andoccupied Crotch's bumble bee habitat within or bordering the project site is documented, or if Crotch's bumble bee is assumed to be present based on the habitat assessment, preconstruction surveys of such habitat for active bee nest colonies shall be required no more than 5 days prior to any ground disturbance activities that occur between February 15 and September 15. The Project Biologist will establish, monitor, and maintain a no-work buffer around any active nest colonies identified during surveys.

The size and configuration of the no-work buffer will be based on the best professional judgment of the Project Biologist in consultation with CDFW. The buffer should provide at least 50 feet of clearance around nest entrances. Construction activities should not occur within the no-work buffers until the colony is no longer active. To determine that a nest is no longer active, the nest will be observed for a minimum of 60 minutes each day across multiple days (three days minimum) during suitable flight weather (i.e., ambient air temperature between 60- and 90- degrees Fahrenheit, winds under 10 mph, and no precipitation heavier than a drizzling rain). If no bees are seen flying in or out of the nest it will be determined that the next season's queens have dispersed from the colony and the nest is no longer active.

If Crotch's bumble bee is found on-site during habitat assessments or protocol surveys, the project proponent shall:

i. Notify CDFW of the species' presence within 48 hours and consult with the CDFW to determine whether the project needs to obtain an incidental take permit, and adhere to the following minimum conditions:

ii. Implement Immediate Avoidance and Minimization Measures:

1. Conduct a nest search within suitable habitat areas identified during surveys
2. Establish and clearly mark no-work buffer zones of at least 50 feet around active nest colonies if found
3. Avoid all ground-disturbing activities within these buffer zones during the active bee season (February 15 through September 15)

iii. Have a monitor present during initial ground disturbance and vegetation clearance.

Compensatory mitigation for permanent direct impacts to suitable Crotch's bumble bee habitat shall be offset through compensatory mitigation, which may include, but is not necessarily limited to, on-site or off-site habitat preservation, enhancement, restoration, and/or creation at a ratio of no less than 1:1. If an incidental take permit covering Crotch's bumble bee is issued for the project, the measures and mitigation ratios specified in that permit shall take precedence over those outlined in this report.

5. **Western Spadefoot Avoidance and Mitigation.** To minimize impacts, project design shall prioritize avoidance of areas where there is potential for western spadefoot occurrence, to the extent feasible. Avoidance efforts will focus on protecting both permanent and temporary wetlands that are suitable for western spadefoot breeding, including natural and altered water features that retain water for at least 30 days. These habitats include, but are not limited to:

- Vernal pools
- Ephemeral streams
- Artificial ponds (e.g., livestock, sedimentation, flood control)
- Irrigation and roadside ditches
- Roadside puddles, tire ruts, and borrow pits.

In addition, adjacent upland habitats—which include scrubland, oak woodlands, chaparral, and grasslands—within 1,500 feet of breeding sites, which provide foraging areas, movement corridors, and overwintering locations, shall also be avoided.

Contingent upon the western spadefoot's formal listing under the ESA, the project will initiate formal consultation with the U.S. Fish and Wildlife Service (USFWS) to develop and implement scientifically appropriate mitigation strategies. These strategies may include, but are not limited to, establishing species-specific avoidance buffer distances and implementing targeted exclusionary fencing to minimize potential adverse impacts on the species.

M-BI-6 **Biological Monitoring of Stormwater Pollution Prevention Plan (SWPPP) Implementation.** A SWPPP shall be prepared that meets all County requirements. Implementation of the SWPPP shall protect habitats and special-status species adjacent to the project during construction and decommissioning activities. The items below shall be included in the SWPPP, and the Project Biologist shall verify that they are implemented during construction and decommissioning monitoring:

1. No planting or seeding of invasive plant species on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region.
2. Dust control fencing is in place and intact if fencing is required.
3. Construction activity is located outside of jurisdictional WOTUS/WOS except as authorized by applicable law and permit(s), including permits and authorizations approved by the USACE, CDFW, and Water Board.
4. Silt-settling basins installed during the construction process are located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes. Design of drainage facilities shall incorporate long-term control of pollutants and stormwater flow to minimize pollution and hydrologic changes.
5. Temporary structures, staging, and storage areas for construction equipment and/or materials are located outside of jurisdictional waters, including wetlands and riparian areas.
6. No material stockpiles, debris, bark, slash sawdust, rubbish, cement, concrete or washing thereof, oil, or petroleum products are stored where they may be washed by rainfall or runoff into jurisdictional WOTUS or WOS.
7. When construction operations are completed, excess materials or debris have been removed from the work area.
8. No equipment maintenance is performed within or near jurisdictional WOTUS/WOS where petroleum products or other pollutants from the equipment may enter these areas.
9. Fully covered trash receptacles that are animal-proof and weather-proof are installed and used by the operator to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Littering is prohibited, and removal of trash from construction areas daily is required. All food-related trash and garbage are removed from construction sites daily.
10. There are no pets on or adjacent to construction sites.

11. Speed limits in and around all construction areas are enforced so that vehicles do not exceed 15 mph on unpaved roads and the right-of-way accessing the construction site, or 10 mph during the night.

Documentation: The permittee shall submit a SWPPP for review and approval by the County of San Diego biologist.

Timing: The following actions shall occur throughout the duration of construction for each phase.

Monitoring: The County of San Diego shall review the SWPPP and ensure its implementation.

M-BI-7 **Prevention of Chemical Pollutants.** Weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County agriculture commissioner. The application of herbicides shall be in compliance with all federal and state laws and regulations under the prescription of a licensed Pest Control Adviser with at least 2 years of experience and implemented by a licensed applicator. Where manual and/or mechanical methods are used, disposal of the plant debris shall follow the regulations set by the County agriculture commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the Pest Control Adviser, the County agriculture commissioner, and the California Invasive Plant Council, with the goal of controlling populations before they start producing seeds.

During project construction, operation, and decommissioning, all areas that use chemicals that are potentially toxic or impactive to sensitive habitats or plants shall incorporate best management practices (e.g., avoid applications during or before rain events and avoid placing materials close to sensitive habitats) on-site to reduce impacts caused by the application and/or drainage of such materials within the development footprint. In addition, use of rodenticides and pesticides shall not be allowed.

Documentation: The permittee shall assume responsibility pursuant to this condition.

Timing: Upon establishment of use, the condition shall apply during the term of this permit for each phase.

Monitoring: The PDS is responsible for enforcement of this permit.

M-BI-8 **Prevention of Invasive Plant Species.** A County of San Diego-approved plant list shall be used for areas immediately adjacent to open space. A hydroseed mix that incorporates native species, is appropriate to the area, and is free from invasive species shall be used for landscaped areas adjacent to the biological open space. The PDS landscape architect shall require that all final landscape plans comply with the following: no invasive plant species, as included on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region shall be included, and the plant palette shall be composed of native species that do not require high irrigation rates. The Project Biologist shall periodically check landscape products for compliance with these requirements. Planting, seeding, and weed control for the mitigation site are discussed in the RMP.

M-BI-9 **Operations and Maintenance Signage.** Signage shall be posted at all entrances to the facility stating that operations and maintenance personnel shall be prohibited from the following:

1. Harming, harassing, or feeding wildlife and/or collecting special-status plant or wildlife species
2. Smoking
3. Traveling (either on foot or in a vehicle) outside of the solar facility in undisturbed portions of the project site
4. Having pets on the project site
5. Littering
6. Remaining at the facility after daylight hours unless conducting operations and maintenance activities
7. Exceeding normal nighttime operation noise and lighting

M-BI-10 **Noise Reduction.** Construction- and decommissioning-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) adjacent to breeding/nesting areas shall incorporate noise-reduction measures (described below) or be curtailed during the breeding/nesting season of sensitive bird species.

1. Trucks and other engine-powered equipment shall be equipped with noise reduction features, such as mufflers and engine shrouds, which are no less effective than those originally installed by the manufacturer.
2. Trucks and other engine-powered equipment shall be operated in accordance with posted speed limits and limited engine idling requirements.
3. Usage of truck engine exhaust compression braking systems shall be limited to emergencies.
4. Back-up beepers for all construction equipment and vehicles shall be adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration's (OSHA's) and the California Division of Occupational Safety and Health's safety requirements are not violated. These settings shall be retained for the duration of construction activities.
5. Vehicle horns shall be used only when absolutely necessary, as specified in the contractor's specifications.
6. Radios and other noise-generating "personal equipment" shall be prohibited.

If construction-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) occur during the period of January 15 through August 31, a County-approved biologist shall conduct preconstruction surveys in suitable nesting habitat adjacent to the construction area to determine the location of any active nests in the area (see M-BI-5).

M-BI-11 **Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways.**

1. **Erosion Control Around RPO Wetland Buffers:** Actively implement erosion control measures to prevent erosion and the discharge of sediment and pollutants into all San Diego County Wetland Protection Ordinance wetlands and their protection buffers (50-feet) within the project during project activities. Erosion controls shall be made from biodegradable materials where applicable (mulch)

and monitored and repaired, if necessary, to ensure maximum erosion, sediment, and pollution control and removed at the time of project completion.

2. **Flagging RPO Wetland Buffers:** Contractor shall flag all San Diego County Wetland Protection Ordinance (RPO) wetland buffers (50-feet) for avoidance. No work including site access shall occur within the RPO wetland buffers.
3. **Waters Agency Coordination:** Coordinate with all applicable agencies with potential jurisdiction over aquatic resources within the project. If necessary, submit and obtain waters permits prior to project construction.
4. **Waters Permits:** If applicable, all waters permits (printed or electronic) shall be on-site during all project activities, and all personnel shall be aware of and understand all applicable permit conditions. The work must comply with the permitted scope of work and all permit conditions. Ensure coordination with the applicable agencies if permits require advanced notification to start work.

M-BI-12 **Wildlife Corridor.** In order to comply with Figure 15 of the Biological Resources Report depicting wildlife corridors, a minor deviation must be provided and approved to reflect the project changes. Prior to approval of any plan in any phase, issuance of any permit, and prior to use of the premises in reliance of this permit, a minor deviation must be submitted and approved with updated plans to the San Diego County PDS. The Applicant shall submit updated plans to reflect Figure 15 or as deemed appropriate by the County of San Diego and all applicable Wildlife Agencies (as deemed by the County) and gain approval. PDS shall review and approve the minor deviation for compliance with this condition.

1. **Wildlife Corridor Access.** The project shall provide wildlife-friendly fencing to allow for wildlife moving within the project site.

M-BI-13 **Special-status Plants.** Mitigation shall be provided for 800 Jacumba milkvetch (County List A), 33 long-spined spineflower (County List A), 219 Tecate tarplant (County List A), 1,378 sticky geraea (County List B), and 843 desert beauty (County List B). County List A plant species will be mitigated at a 2:1 ratio, and County List B species will be mitigated at a 1:1 mitigation ratio. Mitigation for these plants shall be achieved through (1) seeding and/or salvaging the plants located in proposed impact areas and replanting in suitable mitigation lands, and (2) establishment of additional plants to meet the mitigation requirements as outlined in a Conceptual Revegetation Plan. The Conceptual Revegetation Plan for the biological open space easement shall include the required measures to ensure viability of the transplanted and established individuals.

Documentation: The Applicant shall provide evidence of special-status plant mitigation per requirements of the RMP (see M-BI-4).

Timing: Prior to approval of any plan or issuance of any permit, and prior to use of the premises in reliance of this permit in each phase the evidence of mitigation shall be recorded.

Monitoring: A RMP Annual Report will be submitted to the County along with the submittal fee to cover County staff review time, per the RMP.

M-WF-1 **Fire Protection Plan.**

Fire Protection Measures. The project's Fire Protection Plan (FPP) provides customized measures that address the identified potential fire hazards on the site. The measures are independently established but will work together to result in reduced fire threat and

heightened fire protection. The following measures identified in Section 5 of the FPP will be implemented:

- **CFC Section 503 Fire Apparatus Access Roads**: The three project entrances and both fire access site entrances would feature a manual swing gate, and a sign with a lighted directory map and contact information. All entrance gates would feature a 'Knox Box' to allow ease of access for emergency service providers. The perimeter internal access within the fenced solar facility would be constructed to a minimum improved width of 24 feet. The interior on-site vehicle access roads would be constructed to a minimum improved width of 20 feet. All internal access roads would be designed to provide a minimum inner turning radius of 28 feet, graded and maintained to support the imposed loads of fire apparatus (not less than 75,000 pounds), and designed and maintained to ensure the roads are passable in all weather conditions. There would be a minimum unobstructed vertical clearance of 13 feet, 6 inches. All internal access road surfaces would be Class II roads, composed of decomposed granite, and would be permeable to reduce fugitive dust and erosion in accordance with County Code Section 87.428, Dust Control Measures, and with SDAPCD County Fire Protection District jurisdiction with minimal drive time to the project, in compliance with the County General Plan (County of San Diego 2011).
- **CFC Section 507 Type of Water Supply:** The project would have six 10,000-gallon water tanks with a flow of at least 250 gallons per minute, and fire department connections would be available. Water would be stored in aboveground tanks complying with National Fire Protection Association (NFPA) 22, Standard for Water Tanks for Private Fire Protection. A procedure for ongoing inspection, maintenance, and filling of tanks would be in place. The tank and fire engine connections would be located on the side of the access driveways. The width of the driveway at the water tank location would be at least 18 feet wide (travel width), plus an additional 10 feet; this width would be used for 50 feet of the driveway's length to allow for fire engines to park and connect to the tank while leaving the road open. The tanks would be labeled "Fire Water: 10,000 gallons" using reflective paint.
- **CFC Section 903.2 Automatic Sprinkler Systems Where Required:** Each battery storage container would be located within a metal frame storage container with insulation, air conditioning, and fire suppression, with separate enclosures for the electronic controls, inverters, and rectifiers. There would be a built-in heat detection and fire protection system and a fire extinguishing system. The heat and fire detection system would be linked to an automatic inert gas suppression system within each container. The containers would also have an interior aerosol fire suppression system. The NFPA has developed a new Standard for the Installation of Energy Storage Systems (NFPA 855). This standard addresses the design, construction, installation, commissioning, operation, maintenance, and decommissioning of stationary energy storage systems. The system would be designed in accordance with applicable NFPA safety standards. The containers would be sited with a setback from off-site areas as a buffer against potential wildfire ignitions. The containers would not be walk-in containers; thus, the battery storage containers would be nonhabitable structures per the state and local fire codes that are in place at the time a building permit application is submitted to the County.

- **CFC Section 1205.5 Ground Mounted Photovoltaic Arrays:** The project site would have Fuel Modification Zones (FMZs) before any combustible material is brought on-site for construction, and FMZs would be regularly maintained. All FMZs in and around the PV modules would modify combustible fuels to reduce height to no more than 6 inches to meet Section 1205.5.3 of the 2023 County Consolidated Fire Code. A 30-foot-wide FMZ would be installed along the perimeter of the solar facility between project components (including the PV modules) and off-site wildland fuels. The FMZ would be from the project perimeter fence inward and would be separate from the perimeter fire access road. A 100-foot-wide FMZ would be installed around the two proposed BESS areas, and a 30-foot-wide FMZ would surround the proposed collector substation pad area. Similar to the other FMZs, vegetation within the internal open space easements would be maintained to no more than 6 inches. The fence around the open space easements may present a challenge to vegetation maintenance and firefighter response. Regular maintenance of FMZs may include any potential combination of mechanical control such as mowing, manual removal, herbicide application, prescribed herbivory, or installation of weed barriers beneath the PV modules. Interior access roads would be brushed for a distance of 10 feet on each side to maintain clear ingress and egress with reduced fire behavior in conjunction with the FMZs. This would ensure an unobstructed vertical clearance of not less than 13 feet, 6 inches, in accordance with Section 503.2.1 of the 2023 County Consolidated Fire Code. Each project entrance would feature a lighted directory map identifying all equipment and structures. Additional requirements for fire apparatus roadways and water supply are provided in Sections 503 and 507 of the 2023 County Consolidated Fire Code.

2.2.6.2 Project Design Features

The Applicant has identified and committed to including the following project design features as part of the project to alleviate adverse biological resources effects, to the extent feasible.

PDF-BI-1 **APLIC Standards.** The project shall incorporate APLIC standards (APLIC 2006) with respect to line spacing for energized and grounded parts of the 69-kV and 138-kV transmission structures. The proposed insulators for the transmission structures will include an insulated polymer section that is at least 69 inches long, and the separation for transmission conductors operating at 69 kV and 138 kV will have 76 inches horizontal and 56 inches vertical minimum spacing.

PDF-HY-2 **Implementation of GMMP for JCSD**. To ensure nonpotable water purchased from the Jacumba Community Services District (JCSD) does not result in impacts to the aquifers accessed by JCSD's nonpotable water production wells (Highland Center Well and Park Well), the Starlight Solar Developer will implement the Groundwater Mitigation Monitoring and Mitigation Plan (GMMP) for the Flat Creek watershed.

A groundwater monitoring report will be completed by a Professional Geologist or Professional Engineer licensed in the state of California and will be submitted to County Planning and Development Services (PDS) annually no later than 28 days following the end of the calendar year. Groundwater monitoring reports should be submitted for 5 years after proposed project construction has commenced. After 5 years, County PDS should determine if continuous reporting is required based on the effects of groundwater extraction from the previous 5 years. The annual reports will include the following information:

- Groundwater-level hydrographs and tabulated groundwater-level data for each accessible well in the groundwater-monitoring network
- Tabulated groundwater production volumes from JCSD nonpotable wells
- Documentation of any changes in well pumping or groundwater well conditions for wells in the groundwater-monitoring network
- Documentation of groundwater-dependent habitat monitoring, if necessary, as described in the GMMP

If the baseline groundwater levels at the wells included in the groundwater monitoring network are exceeded by 5 feet, County PDS will be notified via letter and email within 1 working day of the exceedance, or immediately after the exceedance is recognized. Additionally, if groundwater-level thresholds at the off-site wells are exceeded by their respective thresholds, pumping of JCSD nonpotable wells for the project will cease and County PDS will be notified via letter and email within 1 working day, or immediately after the exceedance is recognized.

2.2.7 Conclusion

This section summarizes the conclusions reached in each impact analysis and the determined level of impact that would occur after mitigation measures are implemented. Table 2.2-7 summarizes the project's significant impacts. All potentially significant impacts would be reduced to below a level of significance after mitigation.

Table 2.2-7. Summary of Significant Impacts

Relevant Report Section (see Appendix D, Biological Resources Report)	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
Guideline 4.1: The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special-status species listed in local or regional plans, policies, or regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.						
3.2	Impact BI-SP-1	Special-Status Plants, County List A and B species	Short-term direct	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing	Less than significant	4.1 B
3.2	Impact BI-SP-2	Special-Status Plants, County List A and B species	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.1 B
3.2	Impact BI-SP-3	Special-Status Plants, County List C and D species	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.1 C
3.2	Impact BI-W-1	Special-Status Animals, County Group 1	Short-term direct	M-BI-1 Biological Monitoring M-BI-2 Temporary Fencing M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance	Less than significant	4.1 B

Relevant Report Section (see Appendix D, Biological Resources Report)	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
3.2	Impact BI-W-2	Special-Status County Group 1 or SSC Impacts to active nests or young of nesting County Group 1 or SSC	Short-term direct	M-BI-1 Biological Monitoring M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance	Less than significant	4.1 B
3.2	Impact BI-W-3	Special-Status County Group 1 or SSC Removal of suitable habitat of County Group 1 species	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.1 B
3.2	Impact BI-W-4	Special-Status County Group 2 Impacts to active nests or young of nesting County Group 2	Short-term direct	M-BI-1 Biological Monitoring M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance	Less than significant	4.1 C
3.2	Impact BI-W-5	Special-status Animals, County Group 2	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.1 C
3.2	Impact BI-W-6	Special-Status Animals, Golden eagle	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.1 E
3.2	Impact BI-W-7	Special-Status Animals, Loss of foraging habitat for raptors	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.1 F
3.2	Impact BI-W-8	Loss of Core Wildlife Area, Loss of habitat	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.1 G
3.2	Impact BI-SP-4	Special-Status Plants, County List A and B species	Short-term indirect	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing M-BI-6 Biological Monitoring of SWPPP M-BI-7 Prevention of Chemical Pollutants	Less than significant	4.1 H
3.2	Impact BI-SP-5	Special-Status Plants, County List A and B species	Long-term indirect	M-BI-3 Habitat Preservation M-BI-4 RMP M-BI-7 Prevention of Chemical Pollutants M-BI-8 Prevention of Invasive Plant Species M-BI-9 Operations and Maintenance Signage M-WF-1 Fire Protection Plan	Less than significant	4.1 H

Relevant Report Section (see Appendix D, Biological Resources Report)	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
3.2	Impact BI-W-9	Special-Status Animals Detected or with High Potential to Occur	Short-term indirect	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance M-BI-6 Biological Monitoring of SWPPP M-BI-10 Noise Reduction	Less than significant	4.1 H
3.2	Impact BI-W-10	Special-Status Animals Detected or with High Potential to Occur	Long-term indirect	M-BI-3 Habitat Preservation M-BI-4 RMP M-BI-7 Prevention of Chemical Pollutants M-BI-8 Prevention of Invasive Plant Species M-BI-9 Operations and Maintenance Signage M-WF-1 Fire Protection Plan	Less than significant	4.1 H
Guideline 4.2: The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.						
4.2	Impact BI-V-1	Special-Status Upland Vegetation Communities	Short-term direct	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing	Less than significant	4.2 A
4.2	Impact BI-V-2	Special-Status Upland Vegetation Communities	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.2 A
4.2	Impact BI-JR-1	Jurisdictional Resources	Short-term direct	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing M-BI-11 Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways	Less than significant	4.2 B
4.2	Impact BI-JR-2	Jurisdictional Resources	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP M-BI-11 Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways	Less than significant	4.2 B

Relevant Report Section (see Appendix D, Biological Resources Report)	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
4.2	Impact BI-JR-3	Jurisdictional Resources	Short-term indirect	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing M-BI-6 Biological Monitoring of SWPPP M-BI-7 Prevention of Chemical Pollutants M-BI-11 Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways	Less than significant	4.2 B
4.2	Impact BI-JR-4	Jurisdictional Resources	Long-term indirect	M-BI-3 Habitat Preservation M-BI-4 RMP M-BI-7 Prevention of Chemical Pollutants M-BI-8 Prevention of Invasive Plant Species M-WF-1 Fire Protection Plan M-BI-11 Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways	Less than significant	4.2 B
4.2	Impact BI-V-3	Special-Status Upland Vegetation Communities	Short-term indirect	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing M-BI-6 Biological Monitoring of SWPPP M-BI-7 Prevention of Chemical Pollutants M-BI-9 Operations and Maintenance Signage	Less than significant	4.2 D
4.2	Impact BI-V-4	Special-Status Upland Vegetation Communities	Long-term indirect	M-BI-3 Habitat Preservation M-BI-4 RMP M-BI-6 Biological Monitoring of SWPPP M-BI-7 Prevention of Chemical Pollutants M-BI-8 Prevention of Invasive Plant Species M-BI-9 Operations and Maintenance Signage M-WF-1 Fire Protection Plan	Less than significant	4.2 D
Guideline 4.3: The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.						
5.2	Impact BI-JR-1	Jurisdictional Resources	Short-term direct	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing	Less than significant	4.3 B

Relevant Report Section (see Appendix D, Biological Resources Report)	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
5.2	Impact BI-JR-2	Jurisdictional Resources	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.3 B
5.2	Impact BI-JR-3	Jurisdictional Resources	Short-term indirect	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing M-BI-6 Biological Monitoring of SWPPP M-BI-7 Prevention of Chemical Pollutants	Less than significant	4.3 B
5.2	Impact BI-JR-4	Jurisdictional Resources	Long-term indirect	M-BI-3 Habitat Preservation M-BI-4 RMP M-BI-7 Prevention of Chemical Pollutants M-BI-8 Prevention of Invasive Plant Species M-WF-1 Fire Protection Plan	Less than significant	4.3 B
Guideline 4.4: The project would interfere substantially with the movement of a 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.						
6.2	Impact BI-WM-1	Foraging and Breeding Habitat	Short-term direct	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing	Less than significant	4.4 A
6.2	Impact BI-WM-2	Foraging and Breeding Habitat	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.4 A
6.2	Impact BI-WM-3	Foraging and Breeding Habitat	Short-term and long-term indirect	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance M-BI-6 Biological Monitoring of SWPPP M-BI-9 Operations and Maintenance Signage M-BI-10 Noise Reduction	Less than significant	4.4 A
6.2	Impact BI-WM-4	Foraging and breeding habitat	Short-term and long-term indirect	M-BI-3 Habitat Preservation M-BI-12 Wildlife Corridor	Less than significant	4.4 A
Guideline 4.5: The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state HCP.						
7.2	Impact BI-P-1	Sensitive Habitat Lands	Short-term direct	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing	Less than significant	4.5 C
7.2	Impact BI-P-2	Sensitive Habitat Lands	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.5 C

Relevant Report Section (see Appendix D, Biological Resources Report)	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
7.2	Impact BI-P-3	Sensitive Habitat Lands	Short-term indirect	M-BI-1 Biological Monitoring M-BI-2 Temporary Construction Fencing M-BI-6 Biological Monitoring of SWPPP M-BI-7 Prevention of Chemical Pollutants M-BI-9 Operations and Maintenance Signage	Less than significant	4.5 C
7.2	Impact BI-P-4	Sensitive Habitat Lands	Long-term indirect	M-BI-3 Habitat Preservation M-BI-4 RMP M-BI-6 Biological Monitoring of SWPPP M-BI-7 Prevention of Chemical Pollutants M-BI-8 Prevention of Invasive Plant Species M-BI-9 Operations and Maintenance Signage M-WF-1 Fire Protection Plan	Less than significant	4.5 C
7.2	Impact BI-P-5	Migratory Bird Treaty Act	Long-term direct	M-BI-1 Biological Monitoring M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance	Less than significant	4.5 K
7.2	Impact BI-P-6	Bald and Golden Eagle Protection Act	Long-term direct	M-BI-3 Habitat Preservation M-BI-4 RMP	Less than significant	4.5 L

2.2.7.1 Candidate, Sensitive, or Special-status Species

Short-term direct impacts to County List A and B species (**Impact BI-SP-1**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring) and **M-BI-2** (Temporary Construction Fencing). Long-term direct impacts to County List A and B species (**Impact BI-SP-2**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation), **M-BI-4** (RMP), and **M BI-13** (Special-status Plants). Long-term direct impacts to County List C and D species (**Impact BI-SP-3**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation), **M-BI-4** (RMP), and **M-BI-13** (Special-status Plants). Short-term indirect impacts to County List A and B species (**Impact BI-SP-4**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring), **M-BI-2** (Temporary Construction Fencing), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), and **M-BI-9** (Operations and Maintenance Signage). Long-term indirect impacts to County List A and B species (**Impact BI-SP-5**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation), **M BI-4** (RMP), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), **M-BI-8** (Prevention of Invasive Plant Species), **M-BI-9** (Operations and Maintenance Signage), and **M-WF-1** (Fire Protection Plan).

Short-term direct impacts to federally proposed species for listing, state candidate for listing, County Group 1, or SSC wildlife species (**Impact BI-W-1**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring), **M BI-2** (Temporary Fencing), **M-BI-3** (Habitat Preservation), and **M-BI-5** (Avian Breeding and Special-status Wildlife Impact Avoidance). Short-term direct impacts to active nests or young of nesting County Group 1 or SSC species (**Impact BI-W-2**) would be **less than significant** with implementation of mitigation measure **M-BI-1** (Biological Monitoring) and **M-BI-5** (Avian Breeding and Special-status Wildlife Impact Avoidance). Long-term direct impacts to County Group 1 or SSC species from removal of suitable habitat (**Impact BI-W-3**) would be **less than significant** with implementation of mitigation measures M-BI-3 (Habitat Preservation) and M-BI-4 (RMP). Short-term direct impacts to active nests or young of nesting County Group 2 species (**Impact BI-W-4**) would be **less than significant** with implementation of mitigation measure **M-BI-5** (Avian Breeding and Special-status Wildlife Impact Avoidance). Long-term direct impacts to County Group 2 species (**Impact BI-W-5**) would be **less than significant** with implementation of mitigation measure M-BI-3 (Habitat Preservation) and M-BI-4 (RMP). Long-term direct impacts to golden eagle from removal of suitable nesting and foraging habitat (**Impact BI-W-6**) would be **less than significant** with implementation of mitigation measure **M-BI-3** (Habitat Preservation) and **M-BI-4** (RMP). Long-term direct impacts to raptors from removal of suitable foraging habitat (**Impact BI-W-7**) would be **less than significant** with implementation of mitigation measure **M-BI-3** (Habitat Preservation) and **M-BI-4** (RMP). Long-term direct impacts to a core wildlife area (**Impact BI-W-8**) would be **less than significant** with implementation of mitigation measure **M-BI-3** (Habitat Preservation) and **M-BI-4** (RMP). Short-term indirect impacts to special-status wildlife species (**Impact BI-W-9**) would **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring), **M-BI-2** (Temporary Construction Fencing), **M-BI-5** (Avian Breeding and Special-status Wildlife Impact Avoidance), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), **M-BI-8** (Prevention of Invasive Plant Species), **M BI-9** (Operations and Maintenance Signage), and **M-BI-10** (Noise Reduction). Long-term indirect impacts to special-status wildlife species (**Impact BI-W-10**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-8** (Prevention of Invasive Plant Species), **M-BI-9** (Operations and Maintenance Signage), **M-BI-10** (Noise Reduction), and **M-WF-1** (Fire Protection Plan).

2.2.7.2 Riparian Habitat or Sensitive Natural Community

Short-term direct impacts to special-status upland vegetation communities (**Impact BI-V-1**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring) and **M-BI-2** (Temporary Construction Fencing). Long-term direct impacts to special-status upland vegetation communities (**Impact BI-V-2**) would be **less than significant** with implementation of mitigation measure **M-BI-3** (Habitat Preservation) and **M-BI-4** (RMP). Short-term indirect impacts to special-status upland vegetation communities (**Impact BI-V-3**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring), **M-BI-2** Temporary Construction Fencing, **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), and **M-BI-9** (Operations and Maintenance Signage). Long-term indirect impacts to special-status upland vegetation communities (**Impact BI-V-4**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation), **M-BI-4** (RMP), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), **M-BI-8** (Prevention of Invasive Plant Species), **M-BI-9** (Operations and Maintenance Signage), and **M-WF-1** (Fire Protection Plan).

Short-term direct impacts to jurisdictional resources (**Impact BI-JR-1**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring), **M-BI-2** (Temporary Construction Fencing), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), **M-BI-8** (Prevention of Invasive Plant Species), and **M-WF-1** (Fire Protection Plan). Long-term direct impacts to jurisdictional resources (**Impact BI-JR-2**) would be **less than significant** with implementation

of mitigation measures **M-BI-3** (Habitat Preservation), **M-BI-4** (RMP), and **M-BI-11** (Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways). Short-term indirect impacts to jurisdictional resources (**Impact BI-JR-3**) would be **less than significant** with the implementation of mitigation measures **M-BI-1** (Biological Monitoring), **M-BI-2** (Temporary Construction Fencing), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), and **M-BI-11** (Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways). Long-term indirect impacts to jurisdictional resources (**Impact BI-JR-4**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation), **M-BI-4** (RMP), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), **M-BI-8** (Prevention of Invasive Plant Species), **M-BI-9** (Operations and Maintenance Signage), **M-BI-11** (Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways), and **M-WF-1** (Fire Protection Plan).

2.2.7.3 Jurisdictional Wetlands and Waterways

Long-term direct impacts to jurisdictional resources (**Impact BI-JR-2**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation), **M-BI-4** (RMP), and **M-BI-11** (Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways). Long-term indirect impacts to jurisdictional resources (**Impact BI-JR-4**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation), **M-BI-4** (RMP), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), **M-BI-8** (Prevention of Invasive Plant Species), **M-BI-9** (Operations and Maintenance Signage), **M-BI-11** (Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways), and **M-WF-1** (Fire Protection Plan).

2.2.7.4 Wildlife Movement and Nursery Sites

Short-term direct impacts to foraging and breeding habitat (**Impact BI-WM-1**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring) and **M-BI-2** (Temporary Construction Fencing). Long-term direct impacts to foraging and breeding habitat (**Impact BI-WM-2**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation) and **M-BI-4** (RMP). Short-term and long-term indirect impacts to foraging and breeding habitat (**Impact BI-WM-3**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring), **M-BI-2** (Temporary Construction Fencing), **M-BI-5** (Avian Breeding and Special-status Wildlife Impact Avoidance), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-9** (Operations and Maintenance Signage), and **M-BI-10** (Noise Reduction). Impacts to wildlife connectivity (**Impact BI-WM-4**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation) and **M-BI-12** (Wildlife Corridor).

2.2.7.5 Local Policies, Ordinances, and Adopted Plans

Short-term direct impacts to sensitive habitat lands (**Impact BI-P-1**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring) and **M-BI-2** (Temporary Construction Fencing). Long-term direct impacts to sensitive habitat lands (**Impact BI-P-2**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation) and **M-BI-4** (RMP). Short-term indirect impacts to sensitive habitat lands (Impact BI-P-3) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring), **M-BI-2** (Temporary Construction Fencing), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), and **M-BI-9** (Operations and Maintenance Signage). Long-term indirect impacts to sensitive habitat lands (**Impact BI-P-4**) would be **less than significant** with implementation of mitigation measures **M-BI-3** (Habitat Preservation), **M-BI-4** (RMP), **M-BI-6** (Biological Monitoring of SWPPP), **M-BI-7** (Prevention of Chemical Pollutants), **M-BI-8** (Prevention of Invasive Plant Species), **M-BI-9**

(Operations and Maintenance Signage), and **M-WF-1** (Fire Protection Plan). Long-term direct impacts to migratory birds and active migratory bird nests and/or eggs protected under the MBTA (**Impact BI-P-5**) would be **less than significant** with implementation of mitigation measures **M-BI-1** (Biological Monitoring) and **M-BI-5** (Avian Breeding and Special-status Wildlife Impact Avoidance). Long-term direct impacts to golden eagle from removal of suitable nesting and foraging habitat (**Impact BI-P-6**) would be **less than significant** with implementation of mitigation measure **M-BI-3** (Habitat Preservation) and **M-BI-4** (RMP).

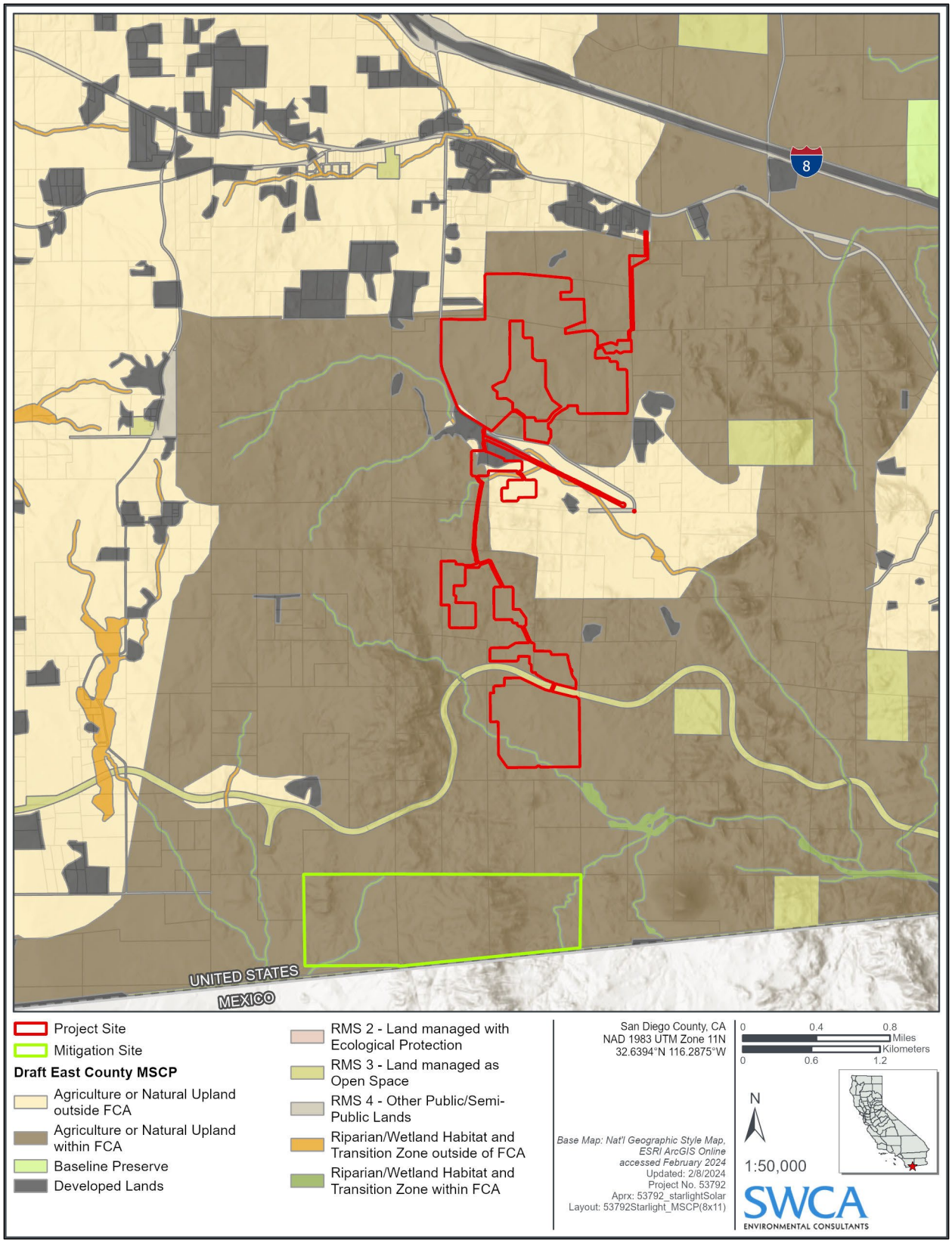

Figure 2.2-1. East County Multiple Species Conservation Program Designation Map

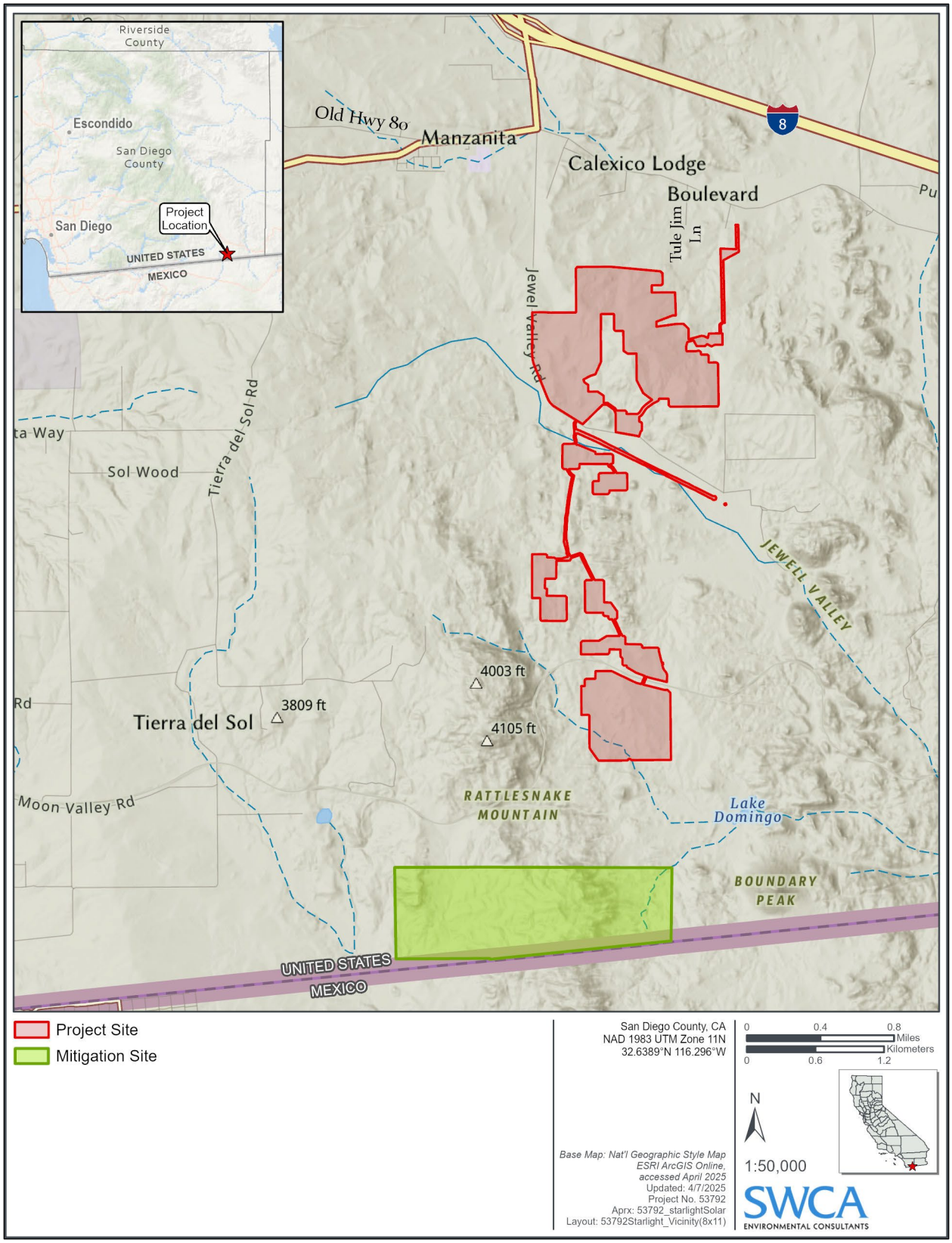

Figure 2.2-2. Project Site and Mitigation Site

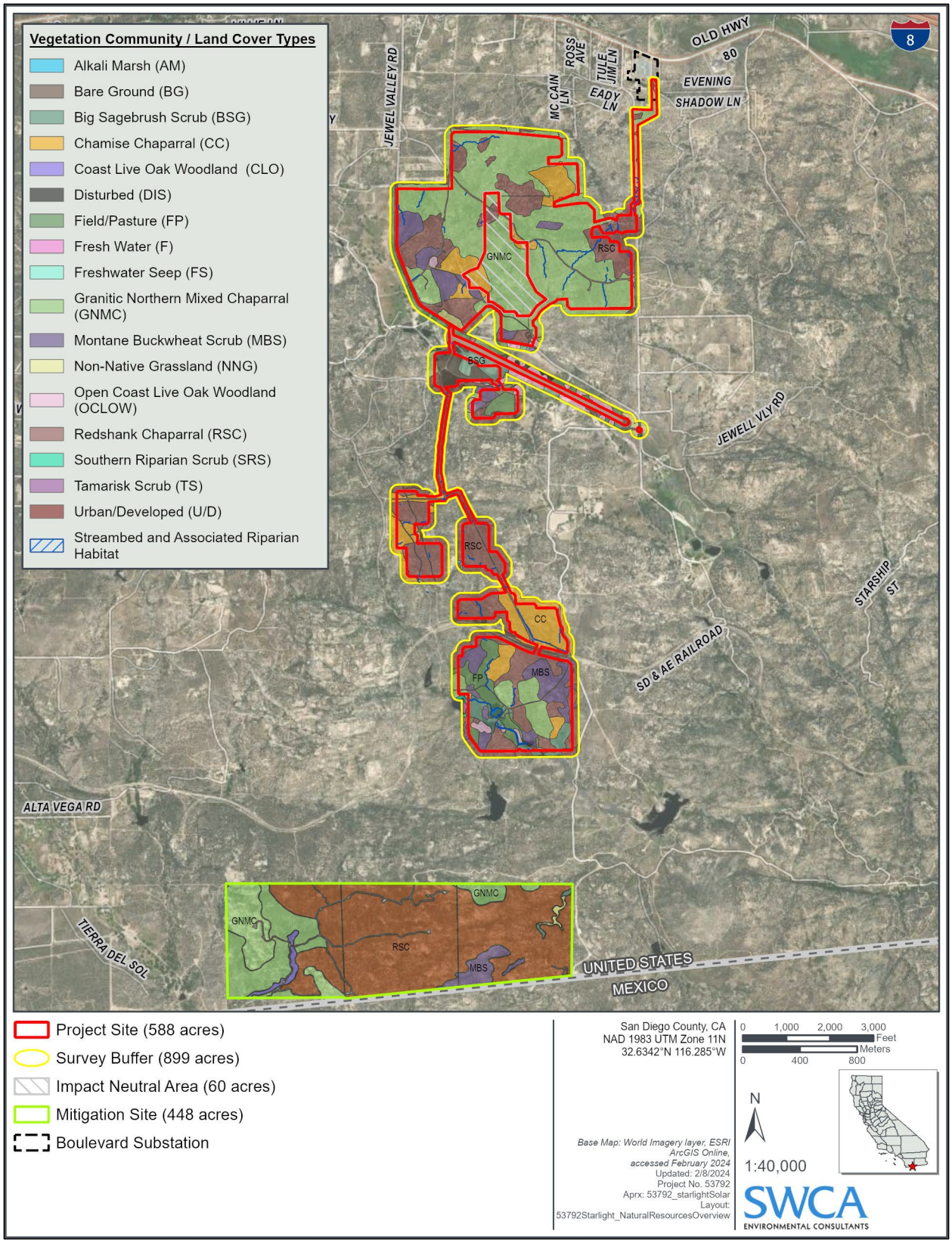

Figure 2.2-3. Natural Communities And Cover Types, Overview Map

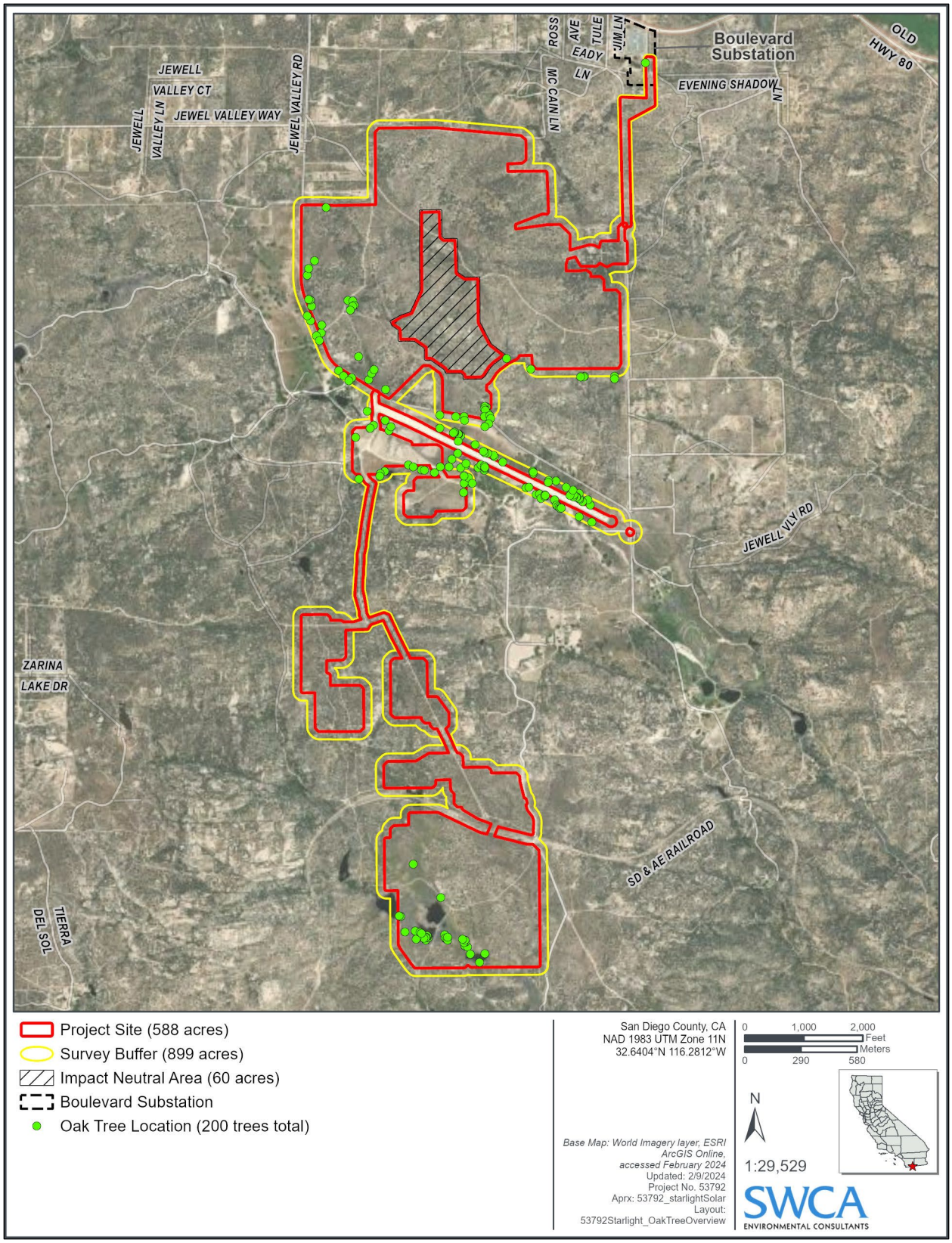

Figure 2.2-4. Coast Live Oak Tree Inventory, Overview Map

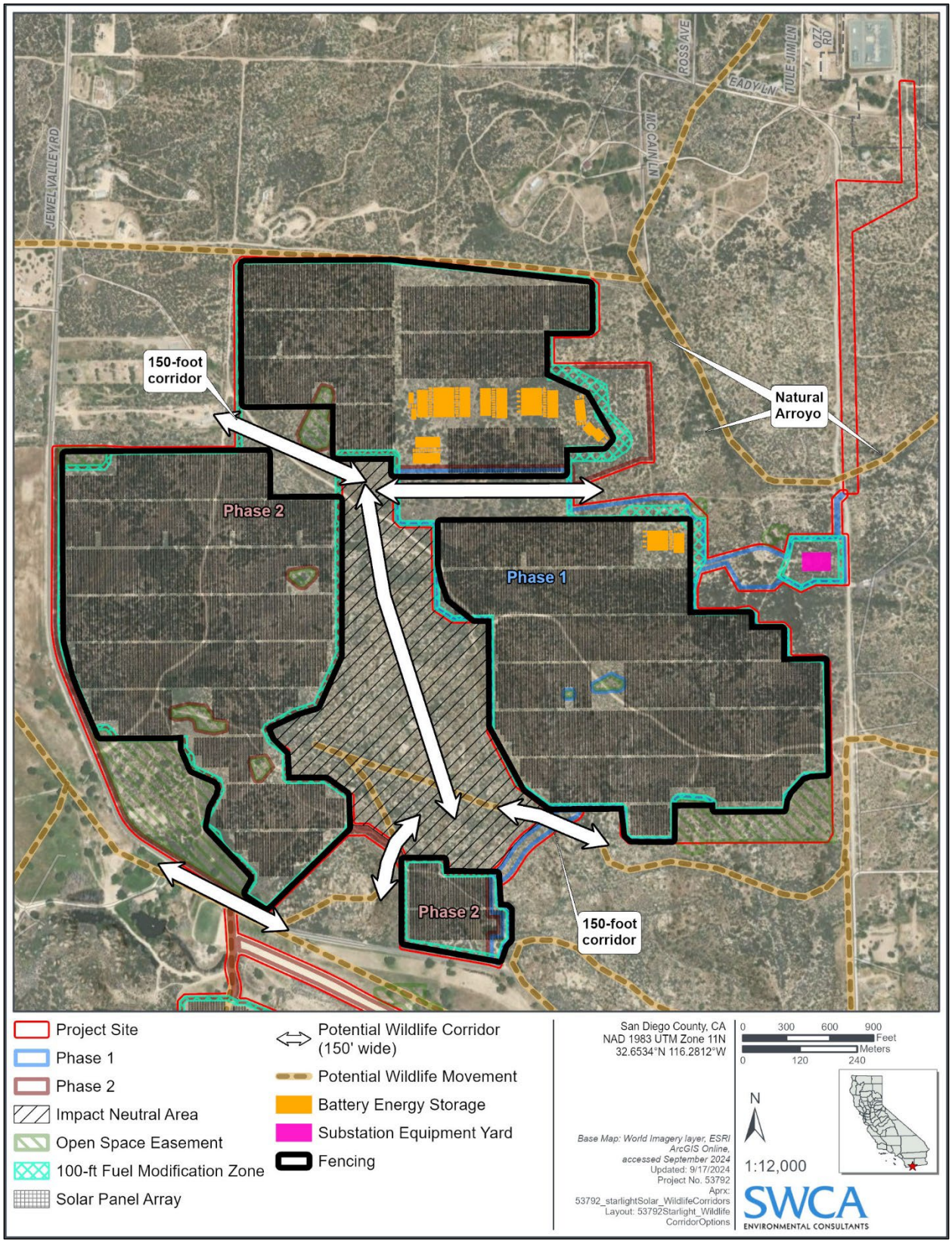

Figure 2.2-5. Conceptual Wildlife Corridor Locations On-site (Figure 15 of the Biological Resources Report)

2.3 Cultural Resources

This section of the Environmental Impact Report (EIR) analyzes potential impacts on cultural resources from the Starlight Solar project (project). The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical reports, which were prepared for the project in accordance with *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (County of San Diego 2007a), *County of San Diego Report Format and Content Requirements, Cultural Resources: Archaeological and Historic Resources* (County of San Diego 2007b), and *County of San Diego Environmental Impact Report Format and General Content Requirements* (County of San Diego 2006):

- *Cultural Resources Survey and Inventory for the Starlight Solar Project, San Diego County, California* (SWCA Environmental Consultants [SWCA] 2024) (Appendix E.1 of this EIR)
- *Historical Resource Technical Report, Starlight Solar Project* (Urbana Preservation & Planning LLC [Urbana] 2024) (Appendix E.2 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the proper consideration and evaluation of historical and archaeological resources. These concerns are addressed in this section of the EIR and within the cultural resources survey and inventory report (see Appendix E.1). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

2.3.1 Existing Conditions

Information in this section is taken from the cultural resources survey and inventory report (SWCA 2024; see Appendix E.1) unless otherwise noted.

2.3.1.1 Natural Setting

The project site is in the Peninsular Ranges geomorphic province, which extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California. Northwest-trending mountain ranges and valleys distinguish the Peninsular Ranges by following faults branching from the San Andreas Fault. The Peninsular Ranges are the remnants of large igneous bodies emplaced approximately 180 million years ago. Rugged mountainous terrain on the east of the province consists mostly of Mesozoic igneous and metamorphic rocks. The project site is located within the topographically dynamic eastern portion of the Peninsular Range Geomorphic Province. Specifically, the site is in an area underlain by early and late Cretaceous tonalite of the La Posta Formation.

Three soil series are mapped within the project site. The La Posta series, loamy coarse or rocky loamy coarse sands, with 5 to 30 percent slopes which are eroded to severely eroded, covers the majority of the project area. La Posta soils are moderately deep, well-drained soils that form in material weathered from basic igneous rocks and typically are located on mountainous uplands. Mottsville loamy coarse sand, with shallower 2 to 9 percent slopes, is the second most common soil series. Mottsville loamy coarse sand is a very deep, excessively drained soil that forms in alluvium derived from granitic rocks. Comparatively small areas of Tollhouse series are mapped in the project area. Tollhouse series is a rocky coarse sandy loam with 5 to 30 percent slopes and eroded. Like the La Posta soil series, Tollhouse soils form in material weathered from granite rocks, but differ in that they are shallower and somewhat or excessively drained.

The terrain in the area is characterized by chaparral-covered hills, with large granitic boulder and bedrock outcroppings, interrupted by small valleys, dry washes, or arroyos. The elevation of the area ranges between approximately 3,300 and 3,600 feet above mean sea level, with the highest elevation located toward the

northwest, and the lowest to the southeast. Several small peaks are present in the area, which include Rattlesnake Mountain and Boundary Peak to the south and Old George, Goat, and Music Mountains to the east. Boundary Peak, located south near the international border, adjacent to the Jewel Valley, rises a little over 3,900 feet.

Nearby water sources include Boundary Creek and Walker Creek, as well as several small springs. Climatically, the area is characterized as arid, with a mean annual rainfall averaging about 15 inches. Due to the scarcity of water in the region, most streams are ephemeral, and permanent surface water flow is rare. Winter temperatures are as low as 32 degrees Fahrenheit (°F), with summer temperatures exceeding 100°F.

The project site is located near the Tecate Divide in a transitional ecoregion between the peninsular mountains and the Colorado Desert to the east. Vegetation consists of mountain chaparral, characterized by the dominant chaparral vegetation of the lowlands and deserts but lacking the hardwood and conifer woodland of some of the mountain regions around it. Common local fauna includes coyotes, cottontail and black-tailed jackrabbits, deer mouse, and song sparrow, as well as a number of other species of bird, mammals, and reptiles.

2.3.1.2 Cultural Setting

Prehistoric Period

Archaeologists have defined five broad cultural traditions for the upland areas of San Diego County (Table 2.3-1). The earliest is the Paleoindian; these groups had small populations and likely were highly mobile. Scant evidence of occupation of San Diego County by Paleonindian people has been found. The San Dieguito complex is likely the first substantial population of Southern California. While a degree of mobility continued, San Dieguito subsistence strategies focused primarily on coastal shellfish, mountain and inland game, and plant foods. Artifact assemblages include manos and metates, and the evidence of plant processing differentiates this period from the earlier Paleoindian period. Stemmed (e.g., Lake Mojave or Silver Lake) projectile points, crescents, an abundance of scrapers, a small number of milling tools, and the general use of volcanic lithic materials for the manufacture of flaked stone tools mark the San Dieguito complex.

The San Dieguito complex gave way to the Millingstone Horizon (MSH) as formation of larger settlements increased, long-distance trade networks intensified, and art and personal aesthetics such shell and stone pendants became more elaborate, along with an increasing variety of shell bead types. MSH is thought to represent an ecological adaptation to collecting a wider variety of resources. Ground stone implements for the processing of small seeds, namely, metates and slabs paired with manos and mullers, dominated MSH collections. Mortar and pestle, associated with processing acorns, are present, but not common. Hammer stones, chopper tools, various scrapers including scraper planes, and expedient flake cutting tools are abundant.

The Intermediate and Late Prehistoric traditions mark a proliferation of cultures in Southern California. Overall, the Late Holocene regional record is characterized by larger populations with high densities which inhabited larger and more permanent settlements than earlier periods. Artifacts and cultural markers by the Late Prehistoric include pottery, a proliferation of acorn-processing sites in the uplands, the presence of obsidian from Obsidian Butte, the Imperial Valley source, and interment by cremation. The bow and arrow rather than the spear thrower and dart for hunting is inferred from the high densities of small, finely crafted projectile points. Mortar and pestle use expanded and was critical to exploitation of the acorn as a food resource. Since large quantities of acorns were available, which could be stored for long periods of time, the impact on local populations was significant.

Table 2.3-1. Precontact Cultural Chronology for Southern California

Years Before Present	Calendar Age	Geologic Period	California Prehistory Periods	Horizons/Traditions
13,000 BP	11,000 BC	Terminal Pleistocene	Paleoindian ca. 13,000–8000 BP ca. 11,000–6000 BC	Paleoindian
10,000 BP	8000 BC	Early Holocene		Horizon I / San Dieguito
7000 BP	5000 BC	Middle Holocene	Archaic Period ca. 8000–1500 BP ca. 6000 BC to AD 500	Horizon II / MSH
				Horizon III / Intermediate Horizon
3500 BP	1500 BC	Late Holocene		
1500 BP	AD 500		Emergent Period ca. 1,500 BP to Historic Contact ca. AD 500 to Historic Contact	Horizon IV / Late Prehistoric
Historic Contact				

Ethnographic Period

The Native American people in the project area at the time of European contact were the Kumeyaay, specifically the Tipai, who spoke a language broadly designated Kumeyaay, which belongs to the Yuman language family. Traditional Kumeyaay territory stretched from the San Diego coast to just beyond the eastern edge of the Salton Basin. The Kumeyaay were divided into exogamous patrilineal clans. The Tipai were 13 clans which had names based on plant, animal, or natural items. Each band or clan was autonomous and had a clan chief who saw to intra- and inter-clan affairs. However, clan membership was fluid, with individuals having affiliation with multiple communities and multiple clans sometimes sharing the same territory. The Tipai managed the landscape, cultivating native grains, burning stubbles, and casting seeds well into the 1880s in inland mountain locations far removed from the mission establishments near the coast. The indigenous coastal groups were heavily impacted by the Spanish conquest and were subject to control under the Spanish mission system.

The eastern Kumeyaay were not recognized by the federal government and were left on their own to deal with Euro-American encroachment of their homeland. Eventually, the Bureau of Indian Affairs created reservations for the eastern Kumeyaay during the early part of the twentieth century. Today 13 federally recognized bands form the Kumeyaay Nation consisting of Barona, Campo, Capitan Grande (an unoccupied reservation that is part of the Barona Band), Ewiiaapaayp, Inaja Cosmit, Jamul, La Posta, Manzanita, Mesa Grande, San Pasqual, Santa Ysabel, Sycuan, and Viejas. There are also numerous Kumeyaay tribal organizations that are not federally recognized but are recognized by the State of California.

Historic Period

The post-contact history of California is divided into three periods: the Spanish (1769–1822), Mexican (1822–1848), and American (1848–present) periods. The Spanish period began with the establishment of a mission and presidio (fort) in San Diego in 1769. Twenty-one missions were constructed in California between 1769 and 1822. The Mexican period began with independence from Spain and ended with the signing of the Treaty of Guadalupe Hidalgo in 1848. The American period began with the end of the Mexican–American War and included California becoming a territory of the United States. Please see the historic resource technical report (Urbana 2024; see Appendix E.2) for a detailed discussion of the history of the project site.

2.3.1.3 Methodology

The presence and significance of existing cultural resources associated with the project site were determined using the methodologies outlined below. Methodologies included a review of institutional records and reports for the project site and immediate vicinity; coordination with Native American tribes and individuals; a field survey; and site recording. Site record forms (including updates) were prepared and will be submitted to the South Coastal Information Center (SCIC).

Archival Research Methods

Archaeology

SWCA reviewed available online historical U.S. Geological Survey topographic maps and aerial imagery of the project site (SWCA 2024; see Appendix E.1). Historical topographic maps show most of the property as undeveloped and unused from the mid-1900s. The earliest topographic map available for the project site is the 1939 Campo, California, 15-minute quadrangle. The 1950 San Diego 7.5 × 15–foot map displays an increase in private ranch lands around the general project area. The 1959 Tierra del Sol 7.5-minute quadrangle shows undeveloped land. The 1975 Live Oak Springs 7.5-minute quadrangle shows portions of the project site being used as agricultural farmland. The 1997 Live Oak Springs 7.5-minute quadrangle illustrates that no new development occurred.

Aerial photographs from 1953 show the north end of the project site as undeveloped. Later imagery from 1984 shows low levels of development and portions of the project site potentially used for grazing or agriculture. The most current aerial photograph from December 2023 shows the project site unchanged from these earlier aerial photographs. Most of the project site is undeveloped.

References on archaeology and ethnography were obtained from SWCA's in-house library and archives.

Built Environment

Urbana conducted research into built environment resources. Archival research included a review of relevant records and reference resources on file at the San Diego History Center and regional libraries at San Diego State University and the University of California at San Diego. Contextual and property-specific historical research included San Diego regional newspapers from the California Digital Newspaper Collection at the University of California Riverside and via Genealogy Bank. References and narratives on Boulevard and San Diego County were obtained from Urbana's in-house library.

Field Methods

Archaeological Inventory

SWCA conducted field surveys of the project site. The intensive-level survey consisted of systematic surface inspection of all areas with transects walked, where possible, at 15-meter (m) intervals or less to ensure that any surface-exposed artifacts and sites could be identified. SWCA examined the ground surface for the presence of prehistoric artifacts (e.g., flaked stone tools, tool-making debris, or stone milling tools); historic-era artifacts (e.g., metal, glass, or ceramics); sediment discoloration that might indicate the presence of a cultural midden; roads and trails; and depressions and other features that might indicate the former presence of structures or buildings (e.g., post holes or foundations).

A reconnaissance-level survey was undertaken of any areas deemed inaccessible (e.g., steep slopes or thick vegetation); professional judgment was used to assess whether areas were safe for pedestrian survey. In areas that were inaccessible, the reconnaissance survey consisted of inspecting the area from a safe

distance, looking for indications that cultural resources were present. The project site was photographed using a digital camera, and resource data were recorded with a handheld tablet with a submeter-accurate GPS antenna using the Collector for ArcGIS application. Newly identified resources were documented on appropriate California Department of Parks and Recreation Series 523 forms, and all previously recorded resources were updated. All records will be filed with the SCIC. All field notes, photographs, and records related to the current study are on file at the SWCA San Diego, California, office. For the purposes of this project, a prehistoric archaeology site was defined as four or more artifacts within 30 m from one artifact to another, or a prehistoric archaeological feature with or without additional artifact or artifacts. Three or fewer prehistoric artifacts within the same distance were recorded as isolates. The same rules applied for historic archaeology sites except 10 or more artifacts were needed to define a site.

Built-Environment Inventory

Urbana conducted a historic resources survey to observe and photograph historic-era resources within the study area to understand and identify historic-era built environment resources and to examine development patterns associated with the area and the surrounding environs.

Native American Correspondence and Participation

SWCA contacted the Native American Heritage Commission (NAHC) to request a search of their Sacred Lands File on February 4, 2022. The NAHC responded on March 30, 2022, indicating a positive result of the Sacred Lands File. While a positive result does not necessarily indicate the presence of a sacred land within the project site, the NAHC recommended contacting the Ewiiaapaayp Band of Kumeyaay Indians and the Manzanita Band of Kumeyaay Nation (Manzanita) for more information.

SWCA contacted 23 individuals via letters sent by certified mail on January 17, 2024. The letters provided basic project information and a request to notify the County of San Diego (County) within 30 days of receiving the letter should they wish to engage in government-to-government consultation pursuant to Public Resources Code (PRC) Sections 21080.3.1 and 21080.3.2. Follow-up phone calls to the 23 individuals were placed on February 5, 2024, and voicemails were left with contact information if the tribes wanted to reach out. Responses were received from seven of the 23 tribal contacts. In summary, six of the seven responding tribes, including the Ewiiaapaayp Band of Kumeyaay Indians, Jamul Indian Village (Jamul), Quechan Tribe of the Fort Yuma Reservation, San Pasqual Band of Diegueño Mission Indians (San Pasqual), Sycuan Band of the Kumeyaay Nation (Sycuan), and Viejas Band of Kumeyaay Indians (Viejas), stated they wished to defer consultation to tribes nearer to the project site. Sycuan also requested a copy of the cultural and tribal cultural resources technical study. The Campo Band of Diegueño Mission Indians (Campo) requested consultation with the County. SWCA also conducted information gathering through subconsultant Loveless and Linton, who provided Kumeyaay Cultural Committee feedback on the initial intensive survey.

SWCA obtained no information through Native American outreach or communication with the Native American monitors during fieldwork that any of the sites are culturally significant, beyond their recognition as prehistoric, Native American–affiliated archaeological sites. In their capacity as the lead agency under the California Environmental Quality Act (CEQA), the County maintains a list of California Native American tribes that requested to receive notifications pursuant to PRC Sections 21080.3.1 and 21080.3.2, as amended by Assembly Bill (AB) 52. The AB 52 list includes representatives from the following 13 tribal organizations: Campo, Ewiiaapaayp Band of Kumeyaay Indians, Iipay Nation of Santa Ysabel (Santa Ysabel), Inaja-Cosmit Band of Indians, Jamul, Kwaaymii Laguna Band of Mission Indians (Kwaaymii), La Posta Band of Diegueno Mission Indians, Manzanita, Mesa Grande Band of Diegueño Mission Indians, Quechan Tribe of the Fort Yuma Reservation, San Pasqual, Sycuan, and Viejas.

In addition, tribal outreach for government-to-government consultation (AB 52) was initiated by the County on February 15, 2023. Nine tribes (Barona, Campo, Jamul, Kwaaymii, Manzanita, San Pasqual, Santa Ysabel, Sycuan, and Viejas) were sent notices of the project. Four tribes (Campo, Jamul, San Pasqual, and Viejas) have requested formal government-to-government consultation. The County has met with Campo, Jamul, and San Pasqual. On February 5, 2024, Jamul concluded consultation with the County and have deferred to Campo. Finally, Campo provided tribal monitoring during pedestrian survey from September 11 through 29, 2023. SWCA provided Loveless and Linton preliminary survey results to be discussed with members of the Kumeyaay Cultural Committee. The cultural resources survey and inventory report (see Appendix E.1) includes a detailed summary of the outreach and tribal consultation efforts, along with copies of the notification letters and copies of original correspondences.

As discussed in greater detail in Section 2.6, Tribal Cultural Resources, no known tribal cultural resources as defined in CEQA are known to exist within the project site, including those that currently serve religious or other community practices. During the survey, no artifacts or remains were identified or recovered that could be reasonably associated with such practices. Further, no human remains were identified.

2.3.1.4 Record Search Results

Results of the cultural resources records search at the SCIC indicate that 58 cultural resource studies have been conducted in and within the project site and a 1-mile radius. Of these, 18 intersect some portion of the project site. In total, these studies document 210 previously recorded cultural resources within the project site and 1-mile radius, 12 of which are located within the project site. Of the 12 resources, six are archaeological sites and six are isolated occurrences of cultural materials (isolates).

2.3.1.5 Survey and Evaluation Results

Archaeological Survey and Evaluation Results

The archaeological survey completed for the project identified 32 archaeological sites and 41 archaeological isolates. Six of the 32 archaeological sites were previously recorded—P-37-010476/P-37-034159, P-37-027350, P-37-032037 , P-37-033279 , P-37-033310, and P-37-033497/P-37-033502/P-37-033503—and 26 were newly recorded (P-37-040847 through P-37-040853; P-37-040854 through P-37-040855; P-37-040856 through P-37-040859; P-37-040860 through P-37-040872). The cultural resources survey and inventory report (see Appendix E.1) provides a description of the resources visited during the pedestrian survey.

Twenty one archaeological sites—P-37-010476/P-37-034159, P-37-027350, P-37-033310, P-37-033497/ P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040857, P-37-040858, P-37-040859, P-37-040861, P-37-040862, P-37-040863, P-37-040864, P-37-040865, P-37-040866, P-37-040867, P-37-040869, P-37-040870, and P-37-040872—are recommended assumed eligible for listing in the California Register of Historical Resources (CRHR) and San Diego County Local Register of Historical Resources (County Register).

Nine resources—P-37-032037, P-37-033279, P-37-33501, P-37-37612, P-37-040853, P-37-040856, P-37-040860, P-37-040868, and P-37-040871—are recommended ineligible for listing in the CRHR and County Register. Most of these are surficial scatters of historic-era trash. P-37-033279 was previously evaluated through a Phase II testing and recommended ineligible for listing in the CRHR. SWCA concurs with the recommendation of ineligible based on the previous Phase II efforts (Daniels 2013). In the future, and at the request of the Campo Tribe, the artifacts will be removed from curation from the San Diego Archaeological Center (Tierra del Sol Project – Collection #657) to be reinterred within or near the location

of the recorded boundary for P-37-033279. Four sites (P-37-040849, P-37-040852, P-37-040854, P-37-040855) are outside the project site; therefore, they were not evaluated.

Built Environment Survey and Evaluation Results

The built environment survey completed for the proposed project identified 20 historic-era built environment resources. Nineteen of the built environment resources consist of newly recorded unimproved roads greater than 45 years old. The final resource consists of a newly recorded segment of the San Diego & Arizona Railroad (P-37-025860). The pedestrian survey revealed that two previously recorded archaeological sites, P-37-033502 and P-37-033503, are overlapped by a continuous artifact scatter also associated with P-37-033497. All 19 unimproved roads were recommended ineligible under any of the established CRHR and County Register criteria and are not historical resources for the purposes of CEQA. The former San Diego & Arizona Railroad line (P-37-025860) was evaluated as a whole and was found ineligible for listing in the National Register of Historic Places (NRHP). The present evaluation concurs with the previous conclusions and finds it ineligible for the CRHR and County Register as well.

2.3.2 Regulatory Setting

Cultural resources regulations that apply to the project site consist of CEQA (including modification from AB 52), provisions of the CRHR, portions of the Health and Safety Code and PRC pertaining to human remains, the County Resource Protection Ordinance (RPO), and the County Register. Within this framework, historic and archaeological districts and sites are assigned significance based on their exceptional value or quality in illustrating or interpreting the heritage of San Diego County in history, architecture, archaeology, engineering, and culture. Several criteria are used in demonstrating resource importance and are discussed below.

2.3.2.1 State

California Environmental Quality Act

CEQA is legislation that requires a lead agency to evaluate whether a proposed project would have a significant adverse effect on the environment, including historical resources. The State CEQA Guidelines (Title 14 California Code of Regulations [CCR] Section 15064.5) govern implementation of CEQA. The guidelines pertaining to historical resources (Section 15064.5(b)(1)) state, "A substantial adverse change in the significance of a historical resource 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."

According to CEQA (Section 15064.5a), the term "historical resource" includes the following:

1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR. Section 4850 et seq.).
2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically of culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14, Section 4852) including the following:
    A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    B) Is associated with the lives of persons important in our past;
    C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
    D) Has yielded, or may be likely to yield, information important in prehistory or history
4) The fact that a resource is not listed in, or determined eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resource Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

According to CEQA (Section 15064.5(b)), a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change as:

1) Substantial adverse change in the significance of an historical resource 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.
2) The significance of an historical resource is materially impaired when a project:
    a) 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 of Historical Resources; or
    b) 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 Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, 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
    c) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Section 15064.5(c) of CEQA applies to effects on archaeological sites and contains the following additional provisions regarding archaeological sites:

1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).

2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.

3) If an archaeological site does not meet the criteria defined in subsection (a), but does meet the definition of a unique archaeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.

4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Sections 15064.5(d) and (e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) provides:

d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from:

    1. The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
    2. The requirement of CEQA and the Coastal Act.

California Register of Historical Resources

The CRHR is the state-maintained list of cultural resources found to be historically significant. The CRHR is maintained by the California Department of Parks and Recreation. A cultural resource must meet at least one of the following four major criteria to be eligible for inclusion on the list (PRC Section 5024.1(c)):

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 be considered eligible for the CRHR, a historical resource should also possess integrity, which is defined as the ability of a historical resource to convey its significance. All cultural resources must be evaluated under the four criteria for CEQA.

CEQA requires the lead agency to consider whether a project will significantly affect unique archaeological resources that may be eligible for listing in the CRHR and to avoid these unique archaeological resources

when possible or mitigate any effects to less-than-significant levels (PRC Section 21083.2). As stated by CEQA, a unique archaeological resource means an archaeological artifact, object, or site that clearly demonstrates with a high probability that it meets, without merely adding to the current body of knowledge, any of the following criteria (PRC Section 21083.2(g)):

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

The State CEQA Guidelines (Section 15064.5)specify that a "substantial adverse change in the significance of an historical resource 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". Material impairment occurs when a project alters in an adverse manner or demolishes "those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion" or eligibility for the NRHP, CRHR, or local register. In addition, pursuant to State CEQA Guidelines Section 15126.2, the "direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects."

The following guidelines and requirements are of particular relevance to this study's analysis of indirect impacts to historic resources. Pursuant to the State CEQA Guidelines (Section 15378), study of a project under CEQA requires consideration of "the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." The State CEQA Guidelines Section 15064(d) further define direct and indirect impacts as follows:

1) A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project.
2) An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.
3) An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project.

Lastly, California Administrative Code, Title 14, Section 4307 states that "no person shall remove, injure, deface or destroy any object of paleontological, archeological or historical interest or value."

Integrity

In addition to meeting these criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance". To assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, which are defined in the following manner in National Register Bulletin 15 (National Park Service 1995):

- **Location**: the place where the historic property was constructed or the place where the historic event occurred;

- **Design**: the combination of elements that create the form, plan, space, structure, and style of a property;
- **Setting**: the physical environment of a historic property;
- **Materials**: the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;
- **Workmanship**: the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
- **Feeling**: a property's expression of the aesthetic or historic sense of a particular period of time; and/or
- **Association**: the direct link between an important historic event or person and a historic property.

California Government Code

Sections 6254(r) and 6254.10 of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

California State Assembly Bill 52

California State AB 52 requires public agencies to consult with tribes during the CEQA process. As of 2015, CEQA established that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). To be considered a tribal cultural resource (TCR), a resource must be either listed, or determined to be eligible for listing, in the national, state, or local register of historic resources; or a resource that the lead agency chooses, in its discretion, to treat as a TCR.

To help determine whether a project may have such an effect, the lead agency must consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. If a lead agency determines that a project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact. PRC Section 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to TCRs.

PRC Section 21074 defines TCRs as follows:

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.
    a. 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.
    b. 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).

The Governor's Office of Land Use and Climate Innovation, formerly known as the Governor's Office of Planning and Research, defines what constitutes *substantial evidence* as follows:

> Evidence that may support such a finding could include elder testimony, oral history, tribal government archival information, testimony of a qualified archaeologist certified by the relevant tribe, testimony of an expert certified by the tribal government, official tribal government declarations or resolutions, formal statements from a certified Tribal Historic Preservation Officer, or historical/anthropological records. (Governor's Office of Planning and Research 2017:5).

PRC Section 5097.5 states that no person shall "knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands." Violation of this section is a misdemeanor. As defined in this section, "public lands" means "lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof."

Native American Human Remains

Sites that may contain human remains important to Native Americans must be identified and treated in a sensitive manner, consistent with state law (i.e., Health and Safety Code Section 7050.5 and PRC Section 5097.98), as outlined below:

If potential human bone or human remains are encountered during project development, and in accordance with Health and Safety Code Section 7050.5, the county coroner must be notified. The coroner will then determine within 2 working days of being notified whether the remains are subject to his or her authority. If the coroner recognizes the remains to be Native American, he or she shall contact the NAHC by phone within 24 hours, in accordance with PRC Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work the means for treating or disposing, with appropriate dignity, the human remains and associated grave goods.

2.3.2.2 Local

Conservation and Open Space Element of the San Diego County General Plan

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a), presents the County's goals and policies for cultural resources in Chapter 5,

Conservation and Open Space Element (County of San Diego 2011b). Archaeological and historic resources, known collectively as cultural resources, are the tangible or intangible remains left by ancestral people who made and used them. Cultural resources, found throughout San Diego County, are irreplaceable reminders of the county's prehistoric and historic past that continues to have value for communities today. These resources can provide clues to prehistoric and historic human behaviors, and provide scientific, religious, and other valuable educational information about the cultural past. In addition, these resources such as sacred places and traditional cultural sites continue to influence and have value for San Diego County's living tribal people. The cultural environment encompasses both the built (post-1769) and the archaeological environments, which include both prehistoric and historic archaeological sites. Cultural resources are found throughout San Diego County and include not only physical evidence of the past such as Native American rockshelters and pictographs but the intangible evidence such as traditional cultural lands and sacred sites. Examples of historic cultural resources (the built environment) include homes, barns, bridges, fountains, and silos. In 2008, San Diego County had more than 23,000 recorded cultural resource sites and this number continues to grow.

County goals and policies for cultural resources are as follows (County of San Diego 2011b):

- **GOAL COS-7- Protection and Preservation of Archaeological Resources.** Protection and Preservation of the County's important archaeological resources for their cultural importance to local communities, as well as their research and educational potential.
    - **COS-7.1 Archaeological Protection.** Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the equality and integrity of these resources.
    - **COS-7.2 Open Space Easements.** Require development to avoid archeological resources whenever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources.
    - **COS-7.3 Archaeological Collections.** Require the appropriate treatment and preservation of archaeological collections in a culturally appropriate manner.
    - **COS-7.4 Consultation with Affected Communities.** Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources.
    - **COS-7.5 Treatment of Human Remains.** Require human remains be treated with the utmost dignity and respect and that the disposition and handling of human remains will be done in consultation with the Most Likely Descendant (MLD) and under the requirements of Federal, State and County Regulations.
    - **COS-7.6 Cultural Resource Data Management.** Coordinate with public agencies, tribes, and institutions in order to build and maintain a central database that includes a notation whether collections from each site are being curated, and if so, where, along with the nature and location of cultural resources throughout the County of San Diego.
- **GOAL COS-8 - Protection and Conservation of the Historical Built Environment.** Protection, conservation, use, and enjoyment of the County's important historic resources.
    - **COS-8.1 Preservation and Adaptive Reuse.** Encourage the preservation and/or adaptive reuse of historic sites, structures, and landscapes as a means of protecting important historic resources as part of the discretionary application process and encourage the preservation of historic structures identified during the ministerial application process.

San Diego County Register of Historical Resources

The County maintains the County Register consistent with registers developed by the Office of Historic Preservation for listing resources to the CRHR but modified for local use in order to include a range of historical resources which specifically reflect the history and prehistory of San Diego County. Only resources that meet the criteria may be listed or formally determined eligible for listing to the County Register.

San Diego County Resource Protection Ordinance

The County of San Diego's RPO protects significant cultural resources. The RPO defines "Significant Prehistoric or Historic Sites" in the San Diego County Code of Regulatory Ordinances (County Code), Section 86.602(o) as follows:

- Any prehistoric or historic district, site, interrelated collection of features or artifacts, buildings, structure, or object either:
    a) Formally determined eligible or listed in the National Register of Historic Places by the Keeper of the National Register; or
    b) To which the Historic Register ("H" Designator) Special Area Regulations have been applied; or
- One-of-a-kind, locally unique, or regionally unique cultural resources which contained a significant volume and range of data and materials; and
- Any location of past or current sacred religious or ceremonial observances which is either:
    a) Protected under Public Law 95-341, the American Indian Religious Freedom Act or Public Resources Code Section 5097.9 such as burial (s), pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures or,
    b) other formally designated and recognized sites which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

The RPO does not allow non-exempt activities or uses damaging to significant prehistoric or historic lands on properties under County jurisdiction. The only exempt activity is scientific investigation authorized by the County. All discretionary projects are required to be conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites. Noncompliance would result in a project that is inconsistent with County standards.

2.3.3 Analysis of Project Effects and Determination as to Significance

The following significance thresholds for cultural resources are taken from the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (County of San Diego 2007a). A significant impact, based on the County guidelines, would result if any of the following occur (County of San Diego 2007a):

- The project causes a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior Standards.

- The project causes a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.
- The project disturbs any human remains, including those interred outside of formal cemeteries.
- The project proposes activities or uses damaging to significant cultural resources as defined by the Resource Protection Ordinance and fails to preserve those resources.

Guidelines 1 and 2 are derived directly from CEQA. Sections 21083.2 and 15064.5 of the State CEQA Guidelines recommend evaluating historical and archaeological resources to determine whether or not a proposed action would have a significant effect on unique historical or archaeological resources. Guideline 3 is included because human remains must be treated with dignity and respect and CEQA requires consultation with the MLD as identified by the NAHC for any project in which human remains have been identified.

Guideline 4 was selected because the RPO requires that cultural resources be considered when assessing environmental impacts. Any project that would have an adverse impact (direct, indirect, and cumulative) on significant cultural resources as defined by this guideline would be considered a significant impact. The only exemption is scientific investigation.

All discretionary projects are required to be in conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites, as well as requirements listed in the County Code, Title 8 (Zoning and Land Use Regulations) and Section 87.429 (Human Remains or Native American Artifacts) and in the General Plan. Noncompliance would result in a project that is inconsistent with County standards.

2.3.3.1 Built Environment Resources

Guidelines for the Determination of Significance

For the purpose of this EIR, the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (County of San Diego 2007a) provides that a significant impact related to historical built resources would occur if:

- The project causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior Standards.

Analysis

The project site is strongly associated with homesteading, ranching, transportation, and recreation themes. Twenty historic-era (over 45 years old) built environment resources were identified within the project site and surrounding 50-foot buffer. Of the 20 identified historic-era built resources, 19 are unimproved roads and the twentieth is a small segment of the San Diego & Arizona Railroad (P-37-025680). Over the years, several minor unimproved roads were constructed to facilitate homesteading and ranching in the Boulevard area, many of which are still present. However, the identified roads do not exhibit distinctive features or reflect an innovation in road-building practices in the area of engineering and are among several basic unimproved routes that span throughout the region. The roads are not associated with events that have made a significant contribution to broad patterns of the County's and California's history (Criterion 1), are not associated with individuals significant in County or state history (Criterion 2), do not exhibit distinctive

design features, innovations, or evolution in building practices (Criterion 3), and are not likely to yield information important to history or prehistory (Criterion 4). Therefore, none of the identified roads were found individually eligible for the CRHR or County Register.

The San Diego & Arizona Railroad segment is approximately 1.8 miles long, extending between the Little Valley and Jewell Valley. As analyzed in the historical resource technical report (Urbana 2024; see Appendix E.2), under Criterion 1, the line is not directly associated with significant historic events on a national level, serving a minor role in the development of San Diego and Imperial County and in the country's national defense. Although the line was largely financed by John D. Spreckels, an important figure in San Diego's early development, much of his significant accomplishments were made prior to the line's completion. Additionally, most of his significant accomplishments were made at a local level within the city of San Diego. Therefore, the segment does qualify under Criterion 2. The evaluated segment spans between the Little Valley and Jewel Valley for approximately 1.5 miles. The segment is a standard gauge line and does not exhibit distinctive design features or important innovations, nor does it reflect an evolution in railroad building practices in the area of engineering under Criterion 3. Lastly, the segment is unlikely to yield information important to prehistory or history under Criterion 4. Therefore, the segment of the San Diego & Arizona Railroad was not found individually eligible for designation under any of the established CRHR or County Register criteria and is not considered a historical resource under CEQA.

For these reasons, the project would have a **less-than-significant impact** to historic-era built environment resources.

2.3.3.2 Archaeological Resources

Guidelines for the Determination of Significance

For the purpose of this EIR, the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (County of San Diego 2007a) provides that a significant impact related to an archaeological resource would occur if:

- The project causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior Standards.
- The project, as designed, causes a substantial adverse change in the significance of an archaeological resource, as defined in Section 15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.
- The project proposes activities or uses damaging to significant cultural resources as defined by the Resource Protection Ordinance are proposed and the Proposed project fails to preserve those resources.

Analysis

The cultural resources inventory identified 32 archaeological sites and 41 archaeological isolates. The project site is strongly associated with archaeological themes of Native American settlement and subsistence, homesteading, and ranching. Of the 19 Native American archaeological sites identified, nine are lithic scatters, three are lithic quarries, three are artifact scatters, two are bedrock milling sites, and two are habitation sites. Native American components were also identified at the three multicomponent sites identified, including a bedrock milling component (P-37-027350), an artifact scatter component

(P-033497/P-37-033502/P-37-033503), and a lithic scatter component (P-37-040850). Ten historic-era refuse scatter sites and three refuse scatter components of multicomponent sites were also recorded. All historic-era refuse scatters date to the twentieth century, with the majority dating to the mid-century.

Six of the 10 historic-era archaeological sites were recommended ineligible under any of the established CRHR and County criteria because they are not associated with events that have made a significant contribution to broad patterns of the County's and California's history (Criterion 1), are not associated with individuals significant in County or state history (Criterion 2), do not exhibit distinctive design features, innovations, or evolution in building practices (Criterion 3), and are not likely to yield information important to history or prehistory (Criterion 4). The remaining four historic-era archaeological sites are outside the project site and therefore were not evaluated. One previously recorded prehistoric Native American site (P-37-033279) was previously evaluated and determined ineligible for the CRHR. Consistent with project design feature **PDF-CR-1**, artifacts from P-37-033279 would be reinterred within or near the location of the recorded site boundary. All 44 isolated finds are considered ineligible for the CRHR and County Register.

The remaining 18 prehistoric Native American sites, and all three multicomponent sites, are assumed eligible for the CRHR and County Register and therefore are considered historical resources under CEQA. They may also qualify for consideration under the County RPO.

In total, 21 archaeological sites have been assumed eligible for the CRHR and County Register and are considered to be historical resources under CEQA. Therefore, the project has the potential to impact known archaeological resources that qualify as historical resources through ground disturbance associated with project construction, including vegetation removal, excavation, grading, utility installation, and other activities that may damage or destroy known archaeological resources within the project site (**Impact CR-1**). In addition, there is potential for project construction to encounter and impact unknown archaeological resources through ground-disturbing activities (**Impact CR-2**). Therefore, impacts to archaeological resources would be **potentially significant**.

2.3.3.3 Human Remains

Guidelines for the Determination of Significance

For the purpose of this EIR, the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (County of San Diego 2007a:22) provides that a significant impact would occur if:

- The project disturbs any human remains, including those interred outside of formal cemeteries.

Analysis

No human remains were identified during the intensive pedestrian survey of the project site. All 32 archaeological sites (or portions of sites) identified within the project site during the current investigation would either be avoided during project construction or have been evaluated and determined ineligible for the CRHR or County Register, not significant under the County RPO, and not historical resources or unique archaeological resources under CEQA.

The project would comply with PRC Section 5097.98 and State CEQA Guidelines Section 15064.5 in the event any unknown human remains are discovered during ground disturbance. There is potential for project construction to result in impacts to undiscovered human remains through ground-disturbing activities (**Impact CR-3**). Therefore, impacts to human remains would be **potentially significant**.

2.3.4 Cumulative Impact Analysis

The cumulative projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting, and within this geographic area of consideration include other solar projects, a wind project, and a public facilities improvement project. Some of these projects involve related improvements such as electrical substations and subsurface or overhead generation-tie lines. Several of those that have been analyzed under CEQA have the potential to impact cultural resources. Therefore, the project, along with these projects in the cumulative area of analysis, are capable of collectively contributing to impacts to cultural resources. Cumulative projects on state or public lands would be required to comply with PRC Sections 5097–5097.6 pertaining to impacts to cultural resources. Other cumulative projects would be regulated by federal, state, and local regulations, including CEQA and County Code Title 8, Division 7, County Grading, Clearing, and Watercourses.

Archaeological resources that may qualify as significant under CEQA and County guidelines have been identified within the project site. Undiscovered archaeological resources and human remains may be encountered during construction and/or decommissioning. The creation of a dedicated cultural open space easement (**M-CR-1**) will avoid impacts to known archaeological resources, while the preparation and implementation of a Treatment Agreement and Preservation Plan (**M-CR-2**) and archaeological and Native American monitoring (**M-CR-3**) will ensure proper identification, documentation, evaluation, treatment, and reporting of inadvertent discoveries. As a result, the project **would not contribute to a cumulatively considerable impact** to cultural resources.

2.3.5 Significance of Impacts Prior to Mitigation

2.3.5.1 Built Environment Resources

The project site does not contain historic-era built environment resources that qualify as historical resources eligible for designation under any of the established CRHR or County Register criteria. Therefore, there would be **no impacts** to historic-era built resources during construction, operation, and decommissioning of the project.

2.3.5.2 Archaeological Resources

Construction of the project could impact known archaeological resources assumed eligible for the CRHR and County Register within the project site and impacts would be **potentially significant** (**Impact CR-1).**

Construction of the project could encounter and impact undiscovered archaeological resources eligible for listing in the CRHR and County Register within the project site and impacts would be **potentially significant** (**Impact CR-2)**.

2.3.5.3 Human Remains

Construction of the project could encounter and impact undiscovered human remains within the project site and impacts would be **potentially significant** (**Impact CR-3)**.

2.3.6 Mitigation Measures and Project Design Features

2.3.6.1 Mitigation Measures

Mitigation measures **M-CR-1** through **M-CR-6** would mitigate potential impacts under **Impacts CR-1** through **CR-3** as follows.

M-CR-1 **Dedicated Cultural Open Space Easement for Significant Archaeological Resources**. Prior to grading of Phase I, and in order to protect sensitive cultural resources, a Cultural Resource Open Space Easement shall be granted to the County of San Diego (County) as shown on an approved Open Space Easement exhibit. Within Phase I of the project, this easement is for the protection of archaeological sites P-37-027350, P-37-033497/ P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865. Prior to grading of Phase II, and in order to protect sensitive cultural resources, a Cultural Resource Open Space Easement shall be granted to the County as shown on an approved Open Space Easement exhibit. Within Phase II of the project, this easement is for the protection of archaeological sites P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872.

The easement prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The sole exceptions to this prohibition are:

1. Implementation of a site-capping plan approved by the Director of Planning and Development Services, if necessary
2. Selective clearing of vegetation by hand to the extent required by written order of the fire authorities for the express purpose of reducing an identified fire hazard
3. Activities required to be conducted pursuant to a revegetation, habitat management, or landscaping plan approved by the Director of Planning and Development Services
4. Vegetation removal or application of chemicals for vector control purposes where expressly required by written order of the Department of Environmental Health, in a location and manner approved in writing by the Director of Planning and Development Services
5. Installation of temporary or permanent fencing for the purpose of preventing inadvertent disturbance of archaeological sites during construction, maintenance, and decommissioning activities.

The Applicant shall prepare the legal descriptions of the easements, then submit them for preparation and recordation with the County and pay all applicable fees associated with preparation of the documents prior to the approval of any plan and issuance of any permit. For recordation by separate document, the County Department of General Services shall prepare and approve the easement documents and send them to the County Department of Planning and Development Services for preapproval. Planning and Development Services shall preapprove the language and estimated location of the easements prior to recordation.

Upon recordation of the easements the Department of General Services shall forward a copy of the recorded documents to Planning and Development Services for satisfaction of the condition.

M-CR-2 **Cultural Resources Treatment Agreement and Preservation Plan**. In order to mitigate for impacts to cultural resources and tribal cultural resources (TCRs), the Applicant shall develop and enter into a Cultural Resources Treatment Agreement and Preservation Plan with the consulting Native American tribes.

A Cultural Resources Treatment Agreement and Preservation Plan shall be developed between the Applicant or their representative and the consulting Native American tribes. The Cultural Resources Treatment Agreement and Preservation Plan shall be reviewed and agreed to by the County prior to final signature and authorization. The Cultural Resources Treatment Agreement and Preservation Plan shall include but is not limited to the following:

1. Parties entering into the agreement and contact information.
2. Responsibilities of the Property Owner or their representative, Principal Investigator (PI), archaeological monitors, Kumeyaay Native American monitors, and consulting tribes.
3. Requirements of the Archaeological Monitoring Program including unanticipated discoveries. The requirements shall address grading and grubbing requirements including controlled grading and controlled vegetation removal in areas of cultural sensitivity, analysis of identified cultural materials, and on-site storage of cultural materials.
4. Treatment of identified Native American cultural materials and TCRs.
5. Treatment of Native American human remains and associated grave goods.
6. Incorporation of P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 into dedicated open space in Phase I. Incorporation of P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 into dedicated open space in Phase II.
7. Interim treatment and final internment of Native American cultural soils and materials.
8. Confidentiality of cultural information including location and data.
9. Regulations that apply to cultural resources and TCRs that have been identified or may be identified during project construction.

A copy of the implemented agreement shall be submitted to the County for approval, prior to the approval of any plan and issuance of any permit. The County shall review the implemented agreement for compliance this condition.

M-CR-3 **Archaeological and Native American Monitoring**. In order to mitigate for potential impacts to undiscovered buried archaeological resources and human remains, an Archaeological Monitoring Program and potential Data Recovery Program shall be implemented pursuant to the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* and the

California Environmental Quality Act (CEQA). This shall be implemented prior to approval of any grading and or improvement plans and issuance of any Grading or Construction Permits, for both Phases for the period of time that ground-disturbing activities have the potential to uncover or disturb cultural resources, as determined by the Principal Investigator.

A County-approved Principal Investigator known as the "Project Archaeologist" shall be contracted to perform monitoring and a potential data recovery program during all grading, clearing, grubbing, trenching, and earth-disturbing activities for both Phases I and II. The Project Archaeologist shall contract with a Kumeyaay Native American monitor(s) to conduct Native American monitoring for the project.

The monitoring program for both Phases I and II shall include the following:

1. Preconstruction
    a. Contract with a County-approved archaeologist to perform archaeological monitoring and a potential data recovery program during all earth-disturbing activities. The Project Archaeologist shall perform the monitoring duties before, during and after construction.
    b. Hold a preconstruction meeting to be attended by the Project Archaeologist and Kumeyaay Native American monitor(s) to explain the monitoring requirements.
2. Construction Monitoring
    a. Both the Project Archaeologist and Kumeyaay Native American monitor(s) are to be on-site during earth-disturbing activities. The frequency and location of monitoring of native soils shall be determined by the Project Archaeologist in consultation with the Kumeyaay Native American monitor. Both the Project Archaeologist and Kumeyaay Native American monitor shall evaluate fill soils to ensure that they are negative for cultural resources, including those that could be identified as TCRs.
    b. If cultural resources or TCRs are identified:
        i. Both the Project Archaeologist and Kumeyaay Native American monitor(s) have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.
        ii. The Project Archaeologist shall contact the County Archaeologist at the time of discovery.
        iii. The Project Archaeologist in consultation with the County Archaeologist and Kumeyaay Native American monitor(s) shall determine the significance of discovered resources.
        iv. Construction activities shall be allowed to resume after the County Archaeologist has concurred with the significance evaluation.
        v. Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Kumeyaay Native American monitor may collect the cultural material for transfer to a tribal curation facility or repatriation program.
    c. If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project

Archaeologist in consultation with the Kumeyaay Native American monitor(s) and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources or Sacred Sites, including TCRs; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for nonunique cultural resources. The preferred option is preservation (avoidance).

3. Human Remains
    a. The Property Owner or their representative shall contact the County Coroner and the Planning and Development Services Staff Archaeologist.
    b. Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin. If the human remains are to be taken off-site for evaluation, they may be accompanied by the Kumeyaay Native American monitor.
    c. If 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 by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.
    d. The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.
    e. Public Resources Code Section 5097.98, CEQA 15064.5, and Health and Safety Code 7050.5 shall be followed in the event that human remains are discovered.
4. Rough Grading
    a. Monitoring Report. Upon completion of rough grading, a monitoring report shall be prepared identifying whether resources were encountered. A copy of the monitoring report shall be provided to the South Coastal Information Center and any culturally affiliated tribe who requests a copy.
5. Final Grading
    a. Final Report. A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered. A copy of the final report shall be submitted to the South Coastal Information Center and any culturally affiliated tribe who requests a copy.
    b. The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or tribal curation facility that meets federal standards per 36 Code of Federal Regulations (CFR) 79, or alternatively have been repatriated to a culturally affiliated tribe.
    c. The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR 79.

The Applicant shall provide a copy of the Archaeological Monitoring Contract or letter of acceptance, cost estimate, and memorandum of understanding (MOU) to the County. Additionally, the cost amount of the monitoring work shall be added to the grading bond cost estimate for both Phases I and II.

Planning and Development Services shall review the contract or letter of acceptance, MOU, and cost estimate or separate bonds for compliance with this condition. The cost estimate should be forwarded to the County for inclusion in the grading bond cost estimate, and grading bonds and the grading monitoring requirement shall be made a condition of the issuance of the grading or construction permit.

M-CR-4 **Temporary Fencing**. To prevent inadvertent disturbance of archaeological sites, temporary fencing shall be installed around the archaeological sites where they are located within 50 feet of the project area of direct impact (ADI). The temporary fencing shall include the following requirements:

1. Prior to the commencement of any grading and/or clearing in association with the grading and/or improvement plan, temporary construction fencing shall be placed at a distance of 50 feet around the known boundaries of archaeological sites, to protect archaeological sites or portions of sites from inadvertent disturbance. This temporary fencing shall be placed around the following sites in Phase I: P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 adjacent to the project ADI during earth-disturbing activities. This temporary fencing shall be placed around the following sites in Phase II: P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 adjacent to the project ADI during earth-disturbing activities. Temporary fencing shall be installed prior to the preconstruction meeting and any clearing, grubbing, trenching, grading, or ground disturbance during both construction and decommissioning. The temporary fencing shall remain for the duration of project earth-disturbing activities.
2. Temporary fencing shall be required in all locations of the project where proposed grading or clearing is within 50 feet of any archaeological site outside of the project ADI.
3. The placement of such fencing shall be approved by the County. Upon approval, the fencing shall remain in place until the conclusion of grading activities, after which the fencing shall be removed.
4. Installation and maintenance of temporary fencing shall require the presence of monitor(s) (archaeological and Native American) pursuant to **M-CR-3**.
5. A signed and stamped statement from a California Registered Engineer, or licensed surveyor, shall be submitted to Planning and Development Services for approval. The statement shall identify that temporary fencing has been installed in all required locations where grading or clearing is within 50 feet of an archaeological site outside of the project ADI.

M-CR-5 **Permanent Fencing**. To prevent inadvertent disturbance of archaeological sites within the avoidance areas and to the unimpacted portions of the site outside of the ADI, permanent fencing shall be installed at a distance of 50 feet from the boundaries of archaeological sites as indicated on the approved project plans. The fencing shall be a three-strand barbed

wire fence with a total height of four feet once constructed to keep an unobstructed view and to keep with the rural character of the region. The installation of the permanent fencing shall occur by Phase.

This permanent fencing shall be placed around the following sites in Phase I: P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 adjacent to the project ADI. This permanent fencing shall be placed around the following sites in Phase II: P-37-010476/P-37-034159, P-37-033310, , P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 adjacent to the project ADI.

The permanent fencing shall include the following requirements:

1. Installation of permanent fencing shall require the presence of monitor(s) (archaeological and Native American) pursuant to **M-CR-3**.
2. A signed and stamped statement from a California Registered Engineer, or licensed surveyor shall be submitted to Planning and Development Services for approval. The statement shall identify that temporary fencing has been installed in all required locations where grading or clearing is within 50 feet of an archaeological site outside of the project ADI.

M-CR-6 **Long-Term Preservation of Resources**. All operation and maintenance (O&M) and decommissioning activities shall be performed within the proposed project ADI—no ground-disturbing activities shall occur outside the proposed project ADI or in the conservation areas. Employees and contractors performing O&M and decommissioning activities shall receive training or instructions regarding the archaeological and cultural sensitivity of the project site to ensure no inadvertent impacts occur to the potentially significant sites (or portions thereof) that are adjacent to the proposed project ADI.

2.3.6.2 Project Design Features

The Applicant has identified and committed to including the following project design features as part of the project to alleviate adverse cultural resources effects, to the extent feasible.

PDF-CR-1 **Reinterment of Artifacts from P-37-033279**. At the request of the Campo Tribe, before Phase II occupancy, artifacts from P-37-033279 will be reinterred. The artifacts will be removed (deaccessioned) from curation from the San Diego Archaeological Center (Tierra del Sol Project – Collection #657) by the consulting archaeologist. The collection will be reinterred within or near the location of the recorded boundary for P-37-033279 at a depth as determined appropriate through consultation with the Campo Tribe and the County.

2.3.7 Conclusion

The project has the potential to affect both known and undiscovered archaeological resources that may qualify as significant under CEQA and County guidelines (**Impact CR-1** and **Impact CR-2**). These impacts would be mitigated to **less than significant** with implementation of mitigation measures **M-CR-1** (Dedicated Cultural Open Space Easement for Significant Archaeological Resources), **M-CR-2** (Cultural Resources Treatment Agreement and Preservation Plan), **M-CR-3** (Archaeological and Native American Monitoring), **M-CR-4** (Temporary Fencing), **M-CR-5** (Permanent Fencing), and **M-CR-6** (Long-Term Preservation of Resources). The project also has the potential to affect undiscovered human remains

(**Impact CR-3**). This impact would be mitigated to less than significant with implementation of mitigation measures **M-CR-2** (Cultural Resources Treatment Agreement and Preservation Plan), **M-CR-3** (Archaeological and Native American Monitoring), **M-CR-4** (Temporary Fencing), **M-CR-5** (Permanent Fencing), and **M-CR-6** (Long-Term Preservation of Resources)**.**

The project site does not contain historic-era built resources eligible for designation under any of the established CRHR or County criteria. Therefore, there would be **no impacts** to historic-era built resources as a result of the project**.** Impacts to cultural resources and human remains would not be cumulatively considerable.

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2.4 Hydrology and Water Quality

This section of the Environmental Impact Report (EIR) discusses potential impacts to hydrology, water quality, and groundwater resources resulting from the implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project in accordance with the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* (County of San Diego 2021a) and *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2023):

- Starlight Solar preliminary grading plans (Michael Baker International 2024a; Appendix B.2 of this EIR)
- *Preliminary Drainage Study, Starlight Solar* (Michael Baker International 2024b; Appendix G.1 of this EIR)
- *Groundwater Monitoring and Mitigation Plan for the Starlight Solar Project* (INTERA Incorporated [INTERA] 2025c; Appendix G.2 of this EIR)
- County of San Diego Stormwater Quality Management Plan (SWQMP) For Standard Projects (Standard SWQMP), prepared for the Starlight Solar Project, March 15, 2024 (Appendix G.3 of this EIR)
- *Revised Construction Water, Operations and Maintenance and Decommissioning Water Demand Estimate – Starlight Solar* (INTERA 2025a; Appendix G.4 of this EIR)
- *Updated Draft Groundwater Resources Investigation Report – Flat Creek Watershed Analysis* (INTERA 2025b; Appendix G.5 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding potable water use by the project during construction and operation, adverse effects of pumping and other activities on off-site wells, potentially increased stormwater runoff and pollutant discharge, and impacts to local bodies of water. These concerns are addressed in this section of the EIR where applicable and within the preliminary drainage study (see Appendix G.1) and the Ground Water Investigation Report (see Appendix G.5). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

2.4.1 Existing Conditions

2.4.1.1 Regional Climate

The regional climate of the project site consists of warm summer months and cool winters. Average temperatures vary greatly within the region. Mean maximum temperatures in the summer months reach the high 80s to low 90s degrees Fahrenheit (°F). Temperatures may fall below freezing in the winter months, with snow levels occasionally below 2,500 feet (Western Regional Climate Center 2019). Monthly precipitation records were obtained from the County of San Diego (County) for a rain gauge previously located in Jacumba at 32.515557°N, 116.183333°W, and an elevation of 2,800 feet. The period of record available is from March 1963 until March 2011.

2.4.1.2 Regional Hydrology and Drainage

The project site is within the Carrizo Creek watershed (Hydrologic Unit Code [HUC] 8: 18100202) (U.S. Geological Survey 2023). The project site is located within the Jacumba Valley Hydrologic Subarea

(722.72) of the Jacumba Hydrologic Area (722.70), all within the Anza Borrego Hydrologic Unit (722.00) of the Colorado River Basin (Regional Water Quality Control Board [RWQCB] 1986) (Figure 2.4-1). The contributing watershed to the project site covers an approximately 119-square-mile area with a significant portion of the watershed in the state of Baja California, Mexico (Swenson 1981). The project site is located within the Boundary Creek subwatershed and the Walker Canyon–Carrizo Creek subwatershed (Figure 2.4-2).

The project site topography is lowest in the center of the project site along a drainage course at approximately 3,450 feet above mean sea level (amsl). The elevation of the site north of Jewel Valley Road ranges from 3,450 to 3,600 feet amsl with drainage toward the south (near the drainage course) and to the northwest for the remainder of the site. The elevation of the site south of Jewel Valley Road ranges from 3,450 to 3,650 feet amsl with drainage to the north/northwest (Michael Baker International 2024; see Appendix G.1). Throughout the project site, there are various dirt roads and scattered culverts sized for low-flow conditions. The existing culverts are not designed to convey the 100-year peak flow without overtopping; rather, they allow for dry-weather crossing during moderate storms. In large storms, runoff overtops the respective dirt road in all cases.

The region is relatively arid, and surface waters are dominated by ephemeral drainages that convey runoff during and/or shortly after rain events. The project site contains two historic drainages: Boundary Creek just south of Jewel Valley Road and an unnamed tributary of Boundary Creek in the southernmost portion of the project. Jewel Valley Road parallels what was likely once a well-defined Boundary Creek as evidenced by imagery from 1953 (SWCA Environmental Consultants 2022). No National Wetlands Inventory–mapped features are mapped within the survey area north of Jewel Valley Road, although there are some ephemeral intermittent features. Boundary Creek conveys flow in a southeasterly direction toward the community of Jacumba, California, near the U.S.–Mexico border. Near Jacumba, Boundary Creek changes trajectory and conveys flow in a northerly direction toward Carrizo Creek. Flow direction varies within the project site; however, flow within the broader watershed is generally conveyed in a northeasterly direction toward the Salton Sea.

2.4.1.3 Surface Water Quality

The beneficial uses of the surface water bodies in the project area have been designated by the Colorado River Basin RWQCB in the *Water Quality Control Plan for the Colorado River Basin Region* (Basin Plan) (RWQCB 2019). The Basin Plan also includes water quality objectives that are protective of the identified beneficial uses; the beneficial uses and water quality objectives collectively make up the water quality standards for the region.

Under the Clean Water Act (CWA) Section 303(d), the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. No water bodies within the project vicinity are listed on the CWA 303(d) List (impaired water bodies) (State Water Resources Control Board [SWRCB] 2021), although surface waters would eventually discharge indirectly to the Salton Sea, which has several identified impairments. CWA Section 303(d) impairments associated with the Salton Sea include arsenic, selenium, nutrients, salinity, chlorpyrifos, DDT, and enterococcus; these are impairments typically associated with agricultural activities, ranching, and/or surface mining (SWRCB 2016). A total maximum daily load (TMDL) defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. No TMDLs have been established for the aforementioned pollutants/stressors (SWRCB 2016). The project is not in a watershed with a high receiving water risk, as defined in the Construction General Permit (CGP) Guidance (SWRCB 2018). High-risk watersheds are mapped HUC Level 12 watersheds that drain to water bodies that are:

1. CWA 303(d)–listed as being impaired for sediment/siltation;

2. Have a U.S. Environmental Protection Agency (EPA)–approved, sediment-related TMDL; or
3. Have the existing beneficial uses of fish spawning, fish migration, and cold freshwater habitat according to the Basin Plan (RWQCB 2019).

2.4.1.4 Groundwater Resources

The project is proposing to use nonpotable groundwater imported from the Jacumba Community Services District's (JCSD's) Highland Center Well with a potential backup supply provided by the Park Well. JCSD is approximately 5 miles east of the project site. The JCSD service area consists of approximately 423 acres south of Interstate 8, immediately north of the U.S.–Mexico Border, and within the town of Jacumba Hot Springs.

The imported water is sourced from groundwater storage in the Quaternary alluvium, referred to as the Jacumba Valley alluvial aquifer. The Flat Creek watershed consists of approximately 52,405 acres, with 1,058 acres (2%) of the watershed located in the United States. The Flat Creek watershed ranges from 4,265 feet amsl at its headwaters along the Sierra Juarez Mountains to 2,777 feet amsl northeast of the Highland Center Well. Current groundwater demand from the Jacumba Valley alluvial aquifer includes extraction by JCSD, Jacumba Valley Ranch Water Company, and a few potential domestic well owners. Since 1985, JCSD has extracted potable water from up to four groundwater wells within its approximately 423-acre boundary (San Diego Local Agency Formation Commission 2013). In 2023, the Jacumba Valley Groundwater Basin was estimated to have 8,639 acre-feet (af) in storage. Based on the current pumping capacity of the Highland Center and Park Wells, the maximum nonpotable annual production from JCSD wells screened in the Jacumba Valley alluvial aquifer is 410 acre-feet per year (af/yr). This estimate is based on continuous pumping for 1 year at a maximum flow rate of 174 gallons per minute (gpm) and 80 gpm from the Highland Center Well and Park Well, respectively (INTERA 2025b; see Appendix G.5).

Regionally, the project site is not underlain by a California Department of Water Resources (DWR)–defined groundwater basin. The project is located between the Jacumba Valley Groundwater Basin (DWR Basin No. 7-47), approximately 4.5 miles east and the Campo Valley Groundwater Basin (DWR Basin No. 9-028), approximately 9 miles west (RWQCB 2022). JCSD and the source of water for the project are within the Jacumba Valley Groundwater Basin. This basin has a surface area of 6,400 acres and is bounded by faults on the east and west and by the international border with Mexico on the south. Average annual rainfall within the area ranges from about 14 to 16 inches. It is recharged from the Boundary Creek drainage and the Flat Creek drainage (DWR 2004).

As described below in Section 2.4.2, Regulatory Setting, the Sustainable Groundwater Management Act (SGMA) requires basins identified as medium and high priority to be sustainably managed by local public agencies (e.g., counties, cities, and water agencies), who become groundwater sustainability agencies (GSAs). The primary purpose of the GSAs is to develop and implement a groundwater sustainability plan (GSP) to achieve long-term groundwater sustainability. However, the Jacumba Valley Groundwater Basin and the Campo Valley Groundwater Basin are both categorized as very low priority; GSAs are not required to prepare a GSP for basins categorized as low or very low priority (California Water Code Section 10727).

2.4.1.5 Groundwater Quality

The JCSD supplies nonpotable water from the Highland Center Well and the Park Well and supplies potable water from JCSD Wells 7 and 8, which source water from a fractured rock aquifer west of the Jacumba Valley Groundwater Basin.

Water quality samples collected from the Highland Center Well in 2016 and 2023 had measured total dissolved solids concentrations of 400 and 450 milligrams per liter, respectively. A wide range of

constituents, including general minerals, inorganic minerals, and volatile organic compounds, were analyzed. Laboratory results indicated that no volatile organic compounds were detected and that groundwater produced from the Highland Center Well is suitable for construction water supply (see Appendix G.5).

The Park Well was initially intended for use as a potable water well; however, low concentrations of volatile organic compounds were detected during drilling. Toluene was detected at concentrations of 291 micrograms per liter (µg/L), 199 µg/L, and 520 µg/L in water quality samples collected from the Park Well in 2006 (see Appendix G.5). A subsequent water quality sample was collected from the Park Well on November 5, 2015. Results from this sample indicated no detections above the reporting limits for all constituents analyzed, including toluene, which was previously detected in the Park Well above the drinking water maximum contaminant level (MCL) of 150 µg/L (see Appendix G.5).

2.4.1.6 Flood Hazard Zones

The Federal Emergency Management Agency (FEMA) has not mapped a special flood hazard area for any portion of the project site. The project site is located on Flood Insurance Rate Map (FIRM) 06073C2075F and is designated as Zone D (undetermined flood hazard), as no analysis of flood hazards has been conducted (FEMA 2024). Although the site does not have a determined flood level, multiple drainages traverse the site.

2.4.2 Regulatory Setting

2.4.2.1 Federal Regulations

Federal Clean Water Act

The CWA (33 United States Code 1251 et seq.), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the nation's waters." Numerous agencies have responsibilities for administration and enforcement of the CWA. At the federal level, this includes the EPA, U.S. Army Corps of Engineers (USACE), U.S. Bureau of Reclamation, and major federal land management agencies, such as the U.S. Forest Service and Bureau of Land Management. At the state level, with the exception of tribal lands, the California Environmental Protection Agency and its subagencies, including the SWRCB, have been delegated primary responsibility for administering and enforcing the CWA. The California Legislature has assigned the primary responsibility to administer and enforce statutes for the protection and enhancement of water quality to the SWRCB and its nine RWQCBs. The SWRCB provides state-level coordination of the water quality control program by establishing statewide policies and plans for the implementation of state and federal regulations. The nine RWQCBs throughout California adopt and implement water quality control plans that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The RWQCB adopts and implements a basin plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (California Water Code, Sections 13240–13247). The project site is within the jurisdiction of the Colorado River Basin Region RWQCB.

Important sections of the CWA are as follows:

- **CWA Sections 303 and 304** provide for water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, the State of California is required to present the EPA with a list of impaired water bodies that do not meet water quality standards and objectives. California is

required to establish TMDLs for each pollutant/stressor. An essential component of a TMDL is the calculation of the maximum amount of a pollutant that a water body can receive while still meeting water quality standards. Based on the TMDL, the state allocates a loading capacity among the various point and non-point sources that discharge into the impaired water body. Permits for point sources are issued through the EPA's National Pollutant Discharge Elimination System (NPDES) program, as discussed below.

The Colorado River Basin RWQCB is responsible for the protection of the beneficial uses of waters in eastern San Diego County and therefore within the project vicinity. The RWQCB uses its planning, permitting, and enforcement authority to meet its responsibilities adopted in the Basin Plan (RWQCB 2019) 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 identifies existing and potential beneficial uses supported by the key surface water drainages throughout the Colorado River Basin Region RWQCB jurisdiction. Existing uses of groundwater in the vicinity of the project site, which includes the Anza Borrego Hydrologic Unit, consist of municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); Groundwater Recharge (GWR); Water Contact Recreation (REC-1); Non-Water Contact Recreation (REC-2); Warm Freshwater Habitat (WARM); Wildlife Habitat (WILD); and Rare, Threatened, or Endangered Species (RARE) (RWQCB 2019). The Basin Plan also includes water quality objectives that are protective of the identified beneficial uses; the beneficial uses and water quality objectives collectively make up the water quality standards for the region.

- **CWA Section 401 (Water Quality Certification)** requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the act. The project site does contain aquatic resources which are anticipated to meet the criteria of waters of the state regulated under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) and/or Section 401 of the CWA.
- **CWA Section 402** establishes the NPDES program, a permitting system for the discharge of pollutants through a point source into waters of the United States. Such discharge is prohibited unless it is in compliance with an NPDES permit. The NPDES program regulates the discharge of pollutants from municipal and industrial wastewater treatment plants and sewer collection systems, as well as stormwater discharges from industrial facilities, municipalities, and construction sites. In California, implementation and enforcement of the NPDES program is conducted through the SWRCB and nine RWQCBs. The RWQCBs set standard conditions for each permittee in their region, which includes effluent limitations and monitoring programs. The proposed project would be subject to NPDES permits as described under the state regulatory framework, below.
- **CWA Section 404** establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is jointly administered by the USACE and EPA.

Federal Emergency Management Agency

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer-funded disaster relief for flood victims and the increasing amount of damage caused by floods. FEMA manages the NFIP and creates FIRMs that designate 100-year floodplain zones and delineate other flood hazard areas. A FEMA 100-year flood hazard zone is an area that has a 1-in-100 (1%) chance of being flooded in any year based on historical data. The FIRMs indicate the regulatory floodplain to assist communities with land use and floodplain management decisions, so that the requirements of the NFIP are

met in the event of damaging floods. The FIRMs guide location of housing development, the amount of grading/regulation necessary for housing placed on a floodplain, and a city's Uniform Building Code.

2.4.2.2 State Regulations

California Department of Water Resources

The DWR is the state agency that studies, constructs, and operates regional-scale flood protection systems, in partnership with federal and local agencies. The DWR also provides technical, financial, and emergency response assistances to local agencies related to flooding.

Several bills were signed by Governor Schwarzenegger in 2007, adding to and amending state flood and land use management laws. The laws contain requirements and considerations that outline a comprehensive approach to improving flood management at state and local levels.

FloodSAFE California is a strategic multifaceted program initiated by DWR in 2006. FloodSAFE is guiding the development of regional flood management plans, which encourage regional cooperation in identifying and addressing flood hazards. Regional flood plans include flood hazard identification, risk analyses, review of existing measures, and identification of potential projects and funding strategies. The plans emphasize multiple objectives, system resiliency, and compatibility with state goals and integrated regional water management plans. DWR has the lead role in implementing FloodSAFE and works closely with federal, state, tribal, and local partners to improve integrated flood management systems statewide. DWR's role is to advise and provide assistance as a resource to local jurisdictions as they pursue compliance.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (Division 7 of the California Water Code) is the primary water quality control law for California, regulating the quality of the waters of the state. The SWRCB is given authority to enforce the Porter-Cologne Act as well as Section 401 of the CWA and has adopted a statewide general permit that applies to almost all stormwater discharges. This general permit, which is implemented and enforced by the Colorado River Basin RWQCB and San Diego RWQCB in San Diego, requires all owners of land where construction activity occurs to

- Eliminate or reduce non-stormwater discharges to stormwater systems and other waters of the United States;
- Develop and implement a stormwater pollution control plan emphasizing stormwater best management practices (BMPs); and
- Perform inspections of stormwater pollution prevention measures to assess their effectiveness.

In addition, SWRCB regulations mandate a "non-degradation policy" for state waters, especially those of high quality. The RWQCB establishes requirements prescribing the quality of point sources of discharge and establishes water quality objectives. These objectives are established based on the designated beneficial uses for a particular surface water or groundwater.

In accordance with the California Water Code, the Colorado River Basin RWQCB developed the Basin Plan (RWQCB 2019), designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Water quality objectives for the Colorado River Basin satisfy state and federal requirements established to protect waters for beneficial uses and are consistent with existing statewide plans and policies.

The Colorado River Basin RWQCB has permitting authority over the project site. Construction in California that disturbs 1 or more acres of land surface is required to comply with the NPDES CGP for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (as amended by Order No. 2010-0014- DWQ and 2012-006-DWQ) (CGP). As the Colorado River Basin RWQCB has not adopted a municipal permit for the project site, the project will be subject to the postconstruction standards in the CGP, as well as the County's Jurisdictional Runoff Management Program (County of San Diego 2019).

In either case, dischargers are required to submit a Notice of Intent (NOI) in order to obtain coverage under the CGP, at the discretion of the SWRCB and the applicable RWQCB. Dischargers are responsible for notifying the relevant RWQCB of violations or incidents of noncompliance, as well as for submitting annual reports identifying deficiencies of the BMPs and how the deficiencies were corrected.

The CGP requires a risk-based permitting approach, dependent upon the likely level of risk imparted by a project. To ensure compliance and protection of water quality, the permit implements monitoring, reporting, and training requirements for management of potential stormwater pollutants. The permit contains several compliance items, including

1. Mandatory BMPs to reduce erosion and sedimentation, which may include incorporation of vegetated swales, setbacks and buffers, rooftop and impervious surface disconnection, bioretention cells, rain gardens, rain cisterns, implementation of pollution/sediment/spill control plans, training, and other structural and nonstructural actions;
2. Sampling and monitoring for non-visible pollutants;
3. Effluent monitoring and annual compliance reports;
4. Development and adherence to a Rain Event Action Plan;
5. Requirements for the postconstruction period;
6. Numeric action levels and effluent limits for pH and turbidity;
7. Monitoring of soil characteristics on-site; and
8. Mandatory training under a specific curriculum.

The proposed project would disturb more than 1.0 acre of soil and would thus be subject to the provisions and requirements of the CGP. The applicant would submit an NOI to the SWRCB and obtain coverage under, and comply with, the CGP. The preparation of a stormwater pollution prevention plan (SWPPP) would be required in accordance with the CGP. The SWPPP would include, but not be limited to, relevant measures, conditions, and obligations which would reduce or eliminate the impacts of construction activities on stormwater and receiving water quality and quantity. The CGP also contains requirements for the postconstruction period. The proposed project will need to obtain approval for their postconstruction plans from both the County and the Colorado River Basin RWQCB.

Sustainable Groundwater Management Act

The SGMA is a package of three bills (Assembly Bill [AB] 1739, Senate Bill [SB] 1168, and SB 1319) that provides local agencies with a framework for managing groundwater basins in a sustainable manner. The SGMA establishes standards for sustainable groundwater management, roles and responsibilities for local agencies that manage groundwater resources, and priorities and timelines to achieve sustainable groundwater management. Central to the SGMA are the identification of critically overdrafted basins and the prioritization of groundwater basins, establishment of GSAs, and preparation and implementation of GSPs for medium-priority, high-priority, and critically overdrafted basins. GSP objectives require that

future groundwater use does not cause undesirable results, which include the following: declining water levels, reduction of groundwater storage, seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water. One requirement of a GSP is to establish a monitoring network to track water level changes, groundwater storage, and monitor predetermined water level thresholds within each basin. Water level data for these basins will be available to the public through online portals. A basin may be managed by a single GSP or multiple coordinated GSPs.

At the state level, DWR has the primary role in the implementation, administration, and oversight of the SGMA, with the SWRCB stepping in should a local agency be found to not be managing groundwater in a sustainable manner.

In San Diego County, three groundwater basins are designated as medium or high priority and subject to SGMA: Borrego Valley (Borrego Springs Subbasin), San Luis Rey Valley (Upper San Luis Rey Valley Subbasin), and San Pasqual Valley (County of San Diego 2022). As discussed in Section 2.4.1, Existing Conditions, the proposed project is within the region of the Jacumba Valley Groundwater Basin, a very low-priority groundwater basin, and thus does not require a GSP.

Urban Water Management Planning Act

As a part of the California Water Code, the California Urban Water Management Planning Act requires all urban water suppliers with more than 3,000 connections or distributing more than 3,000 af/yr to complete an urban water management plan (UWMP) every 5 years, in years ending in "5" and "0". Each plan must include a description of the service area, existing and planned sources of water available to the supplier, how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding of the agency's plan. In addition, every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its UWMP that includes, but is not limited to, an analysis of water supply reliability over a 20-year planning timeframe, the procedures used in conducting an annual water supply and demand assessment, a definition of standard water shortage levels corresponding to progressive ranges of up to 50% shortages and greater than 50% shortages, and shortage response actions that align with the defined shortage levels.

The JCSD pumps local groundwater from four district-owned wells to 230 connections. The system includes two treated-water reservoirs with an aggregate capacity of 638,000 gallons (San Diego Local Agency Formation Commission 2013). As the JCSD serves less than 3,000 connections, it is not required to prepare an UWMP.

2.4.2.3 Local Regulations

County of San Diego General Plan

The 2011 *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) guides future growth in the unincorporated areas of San Diego County and considers projected growth anticipated to occur within various communities. Goals and policies from several General Plan elements were determined to be applicable to the proposed project; these are discussed below.

Land Use Element

The Land Use Element provides a framework to accommodate future development in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection

of valuable and sensitive natural resources (County of San Diego 2011b). Currently, the County is faced with both significant growth pressures and severe environmental constraints. While population continues to grow, the supply of land capable of supporting development continues to decrease. In accommodating this growth, the land use plan encourages the provision of diverse housing choices while protecting the established character of existing urban and rural neighborhoods. The Land Use Element provides a description of all land use designations applicable to land within San Diego County and specifies the permitted uses on those land use designations.

The following policies in the Land Use Element (County of San Diego 2011b) are applicable to the project:

- **Policy LU-6.5: Sustainable Stormwater Management.** Ensure that development minimizes the use of impervious surfaces and incorporates other Low Impact Development techniques as well as a combination of site design, source control, and stormwater best management practices, where applicable and consistent with the County's LID [Low Impact Development] Handbook.
- **Policy LU-6.9: Development Conformance with Topography.** Require development to conform to the natural topography to limit grading, incorporate and not significantly alter the dominant physical characteristics of a site, and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.
- **Policy LU-6.12 Flooding.** Document and annually review areas within floodways and 100- and200-year floodplains to ensure areas subject to flooding are accurately mapped in accordance with AB 162 (enacted January 1, 2008).
- **Policy LU-8.2: Groundwater Resources.** Require development to identify adequate groundwater resources in groundwater dependent areas, as follows.
    - In areas dependent on currently identified groundwater over-drafted basins, prohibit new development from exacerbating overdraft conditions. Encourage programs to alleviate overdraft conditions in Borrego Valley.
    - In areas without current overdraft groundwater conditions, evaluate new groundwater dependent development to assure a sustainable long-term supply of groundwater is available that will not adversely impact existing groundwater users.
- **Policy LU-12.1 Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.
- **Policy LU-12.2 Maintenance of Adequate Services.** Require development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. Provide improvements for Mobility Element roads in accordance with the Mobility Element Network Appendix matrices, which may result in ultimate build-out conditions that achieve an improved LOS [level of service] but do not achieve a LOS of D or better.
- **Policy LU-13.2: Commitment of Water Supply**. Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.

Conservation and Open Space Element

The primary focus of the Conservation and Open Space Element is to provide direction to future growth and development in San Diego County with respect to conservation, management, and utilization of natural and cultural resources, protection and preservation of open space, and provision of park and recreation resources (County of San Diego 2011c).

The following policies of the Conservation and Open Space Element (County of San Diego 2011c) are applicable to the project:

- **Policy COS-4.1: Water Conservation.** Require development to reduce the waste of potable water through use of efficient technologies and conservation efforts that minimize the County's dependence on imported water and conserve groundwater resources.
- **Policy COS-4.2: Drought-Efficient Landscaping.** Require efficient irrigation systems and in new development encourage the use of native plant species and non-invasive drought tolerant/low water use plants in landscaping.
- **Policy COS-4.3 Stormwater Filtration**. Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces. This policy shall not apply in areas with high groundwater, where raising the water table could cause septic system failures, moisture damage to building slabs, and/or other problems.
- **Policy COS-4.4 Groundwater Contamination.** Require land uses with a high potential to contaminate groundwater to take appropriate measures to protect water supply sources.
- **Policy COS-5.2: Impervious Surfaces.** Require development to minimize the use of directly connected impervious surfaces and to retain stormwater runoff caused from the development footprint at or near the site of generation.
- **Policy COS-5.3: Downslope Protection.** Require development to be appropriately sited and to incorporate measures to retain natural flow regimes, thereby protecting downslope areas from erosion, capturing runoff to adequately allow for filtration and/or infiltration, and protecting downstream biological resources.
- **Policy COS-5.5: Impacts of Development to Water Quality.** Require development projects to avoid impacts to the water quality in local reservoirs, groundwater resources, and recharge areas, watersheds, and other local water sources.
- **Policy COS-19.1 Sustainable Development Practices.** Require land development, building design, landscaping, and operational practices that minimize water consumption.

Safety Element

The purpose of the Safety Element is to provide safety considerations that will help minimize the risk of personal injury, loss of life, property damage, and environmental damage associated with natural and human-made hazards within San Diego County (County of San Diego 2021b).

The following policies of the Safety Element (County of San Diego 2021b) are applicable to the project:

- **Policy S-10.3 Development in Floodplains.** Limit development in designated floodplains to decrease the potential for property damage and loss of life from flooding and to avoid the need for engineered channels, channel improvements, and other flood control facilities. Require development to conform to federal floodproofing standards and siting criteria to prevent flow obstruction.
- **Policy S-10.4 Development in Flood Hazard Areas.** Require development within mapped flood hazard areas to be sited and designed to minimize on and off-site hazards to health, safety, and property due to flooding.
- **Policy S-11.4 Stormwater Management.** Require development to incorporate low impact design, including site design, source control, and other measures to minimize stormwater impacts on

drainage and flood control facilities and promote groundwater recharge, where feasible. In addition, require projects that are classified as Priority Development Projects to also incorporate pollutant control and hydromodification management measures.

- **Policy S-11.5 Development Site Improvements.** Require development to provide necessary on- and off-site improvements to stormwater runoff and drainage facilities.
- **Policy S-11.6 Stormwater Hydrology.** Ensure development avoids diverting drainages, increasing velocities, and altering flow rates to off-site areas to minimize adverse impacts to the area's existing hydrology.

Environmental Justice Element

The Environmental Justice Element includes requirements related to incorporating environmental justice into local land use planning processes. SB1000 requires local governments to address pollution and other hazards that disproportionately impact low-income communities and communities of color within their jurisdiction.

The following policy from the Environmental Justice Element (County of San Diego 2024a) is applicable to the proposed project:

- **EJ-4.3 Green Infrastructure Standards (all unincorporated areas)**. Develop green infrastructure standards that rely on natural processes for stormwater drainage, groundwater recharge, and flood management. Explore feasibility of expanding green infrastructure projects on public, underutilized land.

Mobility Element

The Mobility Element provides a framework for a balanced, multimodal transportation system for the movement of people and goods within the unincorporated areas of the County. The Mobility Element identifies the county road network so that rights-of-way can be preserved for future motorized and non-motorized roadway purposes (County of San Diego 2011d).

The following policies from the Mobility Element (County of San Diego 2011d) are applicable to the proposed project:

- **Policy M-2.5 Minimize Excess Water Runoff.** Require road improvements to be designed and constructed to accommodate stormwater in a manner that minimizes demands upon engineered stormwater systems and to maximize the use of natural detention and infiltration techniques to mitigate environmental impacts.
- **Policy M-10.7 Parking Area Design for Stormwater Runoff.** Require that parking areas be designed to reduce pollutant discharge and stormwater runoff through site design techniques such as permeable paving, landscaped infiltration areas, and unpaved but reinforced overflow parking areas that increase infiltration. Require parking areas located within or adjacent to preserve areas to also include native landscaping and shielded lighting.

Boulevard Subregional Plan

The project site lies within the subregional planning area of Boulevard, within the Mountain Empire Subregion. The Boulevard Subregional Planning Area includes approximately 55,350 acres and contains the communities of Boulevard, Manzanita, Live Oak Springs, Tierra Del Sol, Crestwood, Jewel Valley, McCain Valley, Miller Valley, and a portion of Bankhead Springs (County of San Diego 2013).

The following policies of the *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (Boulevard Subregional Plan) (County of San Diego 2013) are applicable to the proposed project:

- **Goal CM 8.1** Preservation of the quality and quantity of ground and surface water resources to serve the Boulevard community.
    - **Policy CM 8.1.1** Prohibit development and the exportation or sale of groundwater that would adversely impact the ground and surface water resources.
    - **Policy CM 8.1.2** Coordinate with LAFCO [Local Agency Formation Commission] to oppose the development of new water districts and annexation to existing water districts to avoid growth inducement and overdraft conditions.
- **Goal CM 8.2** Prevention of like or similar projects that have closely spaced septic systems feeding and infiltrating the same aquifer that is used for withdrawal of drinking water.
    - **Policy CM 8.2.1** Require that any new proposed development require sufficient set back from each other to avoid the potential to contaminate and/or overload the aquifer with pollutants.
- **Goal CM 8.3** Protection of existing groundwater resources from intrusion of potentially contaminated imported water.

San Diego Municipal Separate Storm Sewer System Permit

Per federal regulations, the State of California issues a municipal stormwater permit (also known as a NPDES permit) to municipalities that must be renewed every 5 years. Under this permit, each municipality must develop a stormwater management program designed to control the discharge of pollutants into and from the municipal separate storm sewer systems (MS4) (or from being discharged directly into the MS4). The purpose is to protect local water bodies since storm drains typically discharge their water into streams, bays, and/or the ocean without treatment. Order R9-2013-0001 was adopted by the San Diego RWQCB on May 8, 2013, and established waste discharge requirements (WDRs) for discharge of urban runoff from the County MS4, the 18 incorporated cities of San Diego County, the San Diego Unified Port District, and the San Diego County Regional Airport Authority. Order R9-2015-0001 was adopted on February 11, 2015, amending the regional MS4 permit to extend coverage to the Orange County co-permittees. Order R9-2015-0100 was adopted on November 18, 2015, amending the regional MS4 permit to extend coverage to the Riverside County co-permittees (County of San Diego 2024b).

The regional MS4 permit is not applicable to the project because its scope is limited to the watersheds that drain to the coast within the San Diego RWQCB. The watershed in which the project is located generally conveys flow to the Salton Sea and is in the Colorado River Basin RWQCB, which does not have an equivalent MS4 permit that covers the project area.

County of San Diego Grading Ordinance

San Diego County Code of Regulatory Ordinances (County Code) Title 8, Division 7, Grading, Clearing and Watercourses (County Grading Ordinance), echoes protections at the federal level by prohibiting any actions or development that would impede water flows and addresses grading and clearing near watercourses. As outlined in Section 87.208 of the County Grading Ordinance, projects involving more than 200 cubic yards of grading, clearing, and/or removal of natural vegetation must obtain a Major Grading permit.

Chapter 4 of the County Grading Ordinance (starting at Section 87.401) includes requirements for the maximum slope allowed for cut and fill slopes, the requirement for drainage terraces on cut or fill slopes exceeding 40 feet in height, expansive soil requirements for cuts and fills, minimum setback requirements

for buildings from cut or fill slopes, and reporting requirements including a soil engineer's report and a final engineering geology report by an engineering geologist, which includes specific approval of the grading as affected by geological factors. Consistent with Section 87.428, the proposed project would also include a variety of measures to minimize fugitive dust (particulate matter 10 microns or smaller in diameter [PM_{10}]) during the construction phase.

Chapter 6 of the County Grading Ordinance (starting at Section 87.601) exists to protect persons and property against flood hazards by prohibiting the alteration of the surface of land so as to reduce the capacity of a watercourse and prohibit any action that impairs, impedes, or accelerates the flow of water in a watercourse in such manner that adversely affects adjoining properties. The ordinance prohibits any land alteration or construction of structures in, upon, or across a watercourse without first obtaining a permit. Enforcement occurs at the time that grading plans or improvement plans are reviewed during the grading permit process. The County Official shall not approve the grading plans or improvement plans without determining that the proposed grading does not create an unreasonable hazard of flood or inundation to persons or property. Even though the project site is not within an identified flood hazard area, as defined by either FEMA or the County, the provisions of this ordinance would apply to the project because they would result in land alteration and construction of structures within a watercourse as defined in the ordinance.

San Diego County Groundwater Ordinance

County Code Title 6, Division 7, Chapter 7, Groundwater, establishes regulations for the protection, preservation, and maintenance of groundwater resources. The purpose of the ordinance is to ensure that development would not occur in groundwater-dependent areas of San Diego County unless adequate supplies are available to serve both existing and proposed uses. Section 67.721 (Groundwater Impacted Basins) requires mapping of any potentially impacted groundwater basins. Any groundwater-impacted basin requires a groundwater investigation report. Section 67.722 regulates all areas within unincorporated San Diego County outside Borrego Valley. For applicable discretionary permit applications, the following findings must be included:

1. Groundwater Investigation. The application shall not be approved unless the approving authority finds, based upon the Groundwater Investigation or other available information, either:
    a. For a water intensive use, that groundwater resources are adequate to meet the groundwater demands both of the project and the groundwater basin if the basin were developed to the maximum density and intensity permitted by the General Plan; or
    b. For all other projects, that groundwater resources are adequate to meet the groundwater demands of the project.

San Diego County Watershed Protection, Stormwater Management, and Discharge Control Ordinance

County Code Sections 67.801 through 67.821, the Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO) was adopted in March 2008 and revised in February 2016. The purpose of the WPO is to protect water resources and improve water quality by controlling the non-stormwater discharges to the stormwater conveyance system and receiving waters, to cause the use of management practices by the County and its citizens that would reduce the adverse effects of polluted runoff discharges on waters of the state, to secure benefits from the use of stormwater as a resource, and to ensure the County is compliant with state and federal law. The WPO establishes standards and requirements that are legally enforceable by the County within the County's jurisdiction. Projects that require a permit (e.g., administrative permit, major use permit, grading permit) are required to demonstrate compliance with the WPO. Section 67.804, for example, specifically addresses waste discharge and prohibits the discharge of

pollutants to the stormwater system unless they are permitted through the NPDES program. Section 67.806 identifies minimum required construction and postconstruction water quality BMPs applicable to all dischargers.

County of San Diego BMP Design Manual

The 2020 *County of San Diego BMP Design Manual* (BMP Design Manual) (County of San Diego 2020) provides guidance for land development projects to comply with the 2013 MS4 permit. It is focused on project design requirements and related postconstruction requirements, not on the construction process itself. The BMP Design Manual addresses, and provides guidance for complying with, updated postconstruction stormwater requirements for Standard Projects and Priority Development Projects, and provides updated procedures for planning, preliminary design, selection, and design of permanent stormwater BMPs based on the performance standards presented in the MS4 permit and the County WPO. The proposed project is located east of the Pacific/Salton Divide and is not classified as a Priority Development Project. Requirements that apply to all projects including Standard Projects include implementation of source control and site design BMPs as described in Chapter 4 of the BMP Design Manual. Detailed submittal requirements including documentation of each selected BMP are provided in Chapter 8 of the BMP Design Manual.

2.4.3 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

For the purpose of this EIR, the following significance thresholds for hydrology and water quality are taken from the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* (County of San Diego 2021a). A significant impact would result if the project would:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface water quality
- 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;
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    - 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
    - Impede or redirect flood flows
- In a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation
- Conflict with or obstruct implementation of a water quality control plan
- Result in substantial soil erosion or the loss of topsoil.

Additionally, the following significance thresholds for groundwater are taken from the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2023). A significant impact would result if the project results in any of the following:

- For proposed projects in fractured rock basins, a soil moisture balance, or equivalent analysis, conducted using a minimum of 30 years of precipitation data, including drought periods, concludes that at any time groundwater storage is reduced to a level of 50% or less as a result of groundwater extraction.
- As an initial screening tool, offsite well interference will be considered a significant impact if after a five year projection of drawdown, the results indicate a decrease in water level of 5 feet or more in the offsite wells. If site-specific data indicates alluvium or sedimentary rocks exist which substantiate a saturated thickness greater than 100 feet in offsite wells, a decrease in saturated thickness of 5% or more in the offsite wells would be considered a significant impact.

The remaining thresholds from the County's groundwater resources guidelines (County of San Diego 2023), provided below, are not applicable to the project. The significance guidelines for SGMA are not applicable as the Jacumba Valley Groundwater Basin is a very low-priority basin and not subject to SGMA. The Jacumba Valley Groundwater Basin is not in an overdraft condition, so the significance thresholds related to groundwater overdraft are also not applicable. The residential or subdivision projects involving multiple owners are excluded from the analysis below since the project is nonresidential. Additionally, the Highland Center Well and the Park Well are nonpotable water sources; therefore, the potable groundwater quality guidelines are not applicable.

- Applicants for projects using groundwater resources in a basin subject to the Sustainable Groundwater Management Act (SGMA) with an adopted groundwater sustainability plan are required to confirm the Project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; or conflict with or obstruct implementation of a Sustainable Groundwater Management Plan. Proposed projects that cannot meet this guideline will be considered to have a significant impact.
- For fractured rock basins that have been demonstrated to be in an overdraft condition, any additional groundwater use will be considered a significant impact.
- Applicants for projects using groundwater resources in the Borrego Springs Subbasin are required to obtain the necessary water rights (i.e., Baseline Pumping Allocations) prior to extracting groundwater. Prior to approval of a Project, the Applicant shall demonstrate to the satisfaction of the Director the ability to obtain necessary BPA.
- (Fractured Rock Basins) As an initial screening tool, offsite well interference will be considered a significant impact if after a five-year projection of drawdown, the results indicate a decrease in water level of 20 feet or more in the offsite wells. If site-specific data indicates water bearing fractures exist which substantiate an interval of more than 400 feet between the static water level in each offsite well and the deepest major water bearing fracture in the well(s), a decrease in saturated thickness of 5% or more in the offsite wells would be considered a significant impact.
- Proposed projects requiring groundwater resources for uses associated with single-family residences require well production during the well test to be no less than 3 gallons per minute (gpm) for each well tested. Proposed projects that cannot meet this requirement will be considered to have a significant impact.
- Where analysis of a residential well test indicates that greater than 0.5 feet of residual drawdown is projected, the project will be considered to have a significant impact.
- The analysis of the residential well test must indicate that the amount of drawdown predicted to occur in the well after five years of continual pumping at the rate of projected water demand (a) will not interfere with the continued production of sufficient water to meet the needs of the anticipated residential use(s), and (b) must be less than the saturated depth of water above the pump intake or

100 feet, whichever is less. (The pump intake is assumed to be 50 feet above the bottom of the well). Proposed projects that cannot meet this guideline will be considered to have a significant impact.

- Groundwater resources for proposed projects requiring a potable water source must not exceed the Primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants. Proposed projects that cannot demonstrate compliance with applicable MCLs will be considered to have a significant impact. In general, projects will be required to sample water supply wells for nitrate, bacteria (fecal and total coliform), and radioactive elements. Projects may be required to sample other contaminants of potential concern depending on the geographical location within the County.

2.4.3.1 Hydrology and Drainage Patterns

Guidelines for the Determination of Significance

The following significance thresholds are taken from the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* (County of San Diego 2021a). A significant impact would result if the project would:

- 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 in a manner which would result in flooding on- or off-site;
    - 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
    - Impede or redirect flood flows
- Result in substantial soil erosion or the loss of topsoil.

Analysis

To analyze the potential impacts of the project in relation to the hydrology and drainage patterns threshold, watershed hydrologic runoff calculations were performed for the 100-year storm event using the San Diego Unit Hydrology (SDUH) software. Additionally, an analysis of the 100-year flood level was conducted using the Hydrologic Engineering Centers River Analysis System (HEC-RAS) software (see Appendix G.1).

The project site currently consists primarily of undeveloped land and scattered brush; most areas of the project receive run-on from undeveloped tributary watersheds. Throughout the project site, there are various dirt roads and scattered culverts sized for low-flow conditions. The existing culverts are not designed to convey the 100-year peak flow without overtopping; rather, they allow for dry-weather crossing during moderate storms. In large storms, stormwater runoff overtops the respective dirt road in all cases (see Appendix G.1).

Project construction would involve clearing and grubbing of the existing vegetation within the 588-acre project site. Proposed improvements within the project site include minor grading limited to at-grade access roads, small pads for electrical equipment, and the softening of contours to support installation of the photovoltaic panels. Grading is expected to be balanced, with approximately 350,000 cubic yards of cut redistributed across the site. Project conditions following construction are estimated to increase impervious

surface by approximately 10.49 acres (see Appendix G.1). Proposed impervious areas include concrete pads for electrical equipment, solar panel posts, and water tanks. Consistent with project design feature **PDF-HY-1**, all project components located within the 100-year floodplain would comply with the County Flood Damage Prevention Ordinance (County Code Sections 811.101 through 811.602) and would be elevated 1 foot above base flood elevation.

The project would not increase runoff velocities or peak flow rates leaving the site (see Appendix G.1). Existing contours of the site would be softened to reduce the potential for rill erosion. Stormwater runoff, sheet flow, and shallow-concentrated flow would flow overland across the project site in a similar manner as it does in its existing state. Runoff would discharge from each respective area of the site as shallow concentrated flow. Two detention basins and subgrade storage pipes would reduce peak flow to less than existing conditions before runoff is discharged from the project site. One detention basin would be in Area A-2 adjacent to the battery energy storage system (BESS) and the other would be adjacent to the project substation.

The project would not cause flooding downstream, nor would it hydraulically impact downstream stormwater infrastructure. The project's preliminary grading plans (see Appendix B.2) and SWQMP (see Appendix G.3) include details on the location and type of BMPs necessary to further reduce the potential for erosion control and stormwater velocity reduction. These include temporary BMPs to be implemented during construction and permanent BMPs to be installed and maintained, per the Standard SWQMP and the California Department of Transportation (Caltrans) *Construction Site Best Management Practices (BMP) Manual* (Caltrans 2017). These BMPs include spillways, hydroseeding, fiber rolls, silt fencing, construction road stabilization, and other erosion control methods. Therefore, grading on the project site would not change the overall drainage pattern or result in the diversion of flow, as compared to existing conditions.

The project site access roads would be primarily constructed with decomposed granite; however, in areas where noticeable concentrated stormwater flow crosses over a road, concrete would be used for short lengths to reduce maintenance, prevent erosion, and prolong usage for a majority of runoff-producing storm events. Concrete and upstream/downstream riprap would be added to locations where concentrated flow crosses the on-site access roads to protect against erosion. Three existing on-site private culverts would be upgraded and lengthened to accommodate the on-site access roads. Additionally, rock-lined flow paths would be in specific locations through the site, to protect the natural banks from scour and increase the roughness of the channel to slow the velocity of flows exiting the site. In addition, infiltration swales may be installed within certain subbasins within the project site to accommodate small, localized increases in peak flow under a 100-year storm event. Further, the portions of the project site not overlain by roads, inverters, battery storage containers, the substation, and the switchyard facilities shall be reseeded with a native hydroseed mix to provide vegetation cover during project operations in accordance with project design feature **PDF-HY-3**. These measures would be effective at minimizing the potential adverse effects of all project-related increases in localized peak flow rates (i.e., around the base of solar panels).

The project proposes to fence the individual panel areas with chain-link fencing. Sediment, detritus, and/or other debris that becomes trapped on one side of the perimeter fencing during high flows could cause flow to back up behind the impediment, potentially redirecting and/or concentrating flow outside the boundaries of currently mapped washes. Therefore, proposed breakaway chain-link fencing will be located where flows are perpendicular to the fencing, thus not altering drainage patterns and/or block or redirect flood flows, which would cross ephemeral washes at a perpendicular angle and potentially trap sediment and detritus during heavy rainfall. It could result in additional scour and/or sedimentation that would not have otherwise occurred absent the panel area fencing. For this reason, project impacts related to alteration of drainage patterns would be **potentially significant (Impact HY-1).**

The existing condition and proposed condition peak flows calculated for the 100-year, 24-hour storm event using the SDUH for each of the project subbasins previously described indicates that there would not be an increase in peak discharge or peak velocities (see Appendix G.1). As such, impacts that result from increased velocities and peak flow rates exiting the project site that would cause flooding downstream or exceed the stormwater drainage system capacity are **less than significant**.

2.4.3.2 Flood Hazards and Risk of Pollutant Release

Guidelines for the Determination of Significance

The following significance thresholds are taken from the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* (County of San Diego 2021a). A significant impact would result if the project would:

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation

Analysis

No portion of the project site is located within a special flood hazard area (FEMA 2024). The project site is designated as Zone D, areas in which flood hazards are undetermined, as no analysis of flood hazards has been conducted. However, the DWR Flood Awareness Map indicates that the area is within an Awareness Floodplain, based on non-detailed studies identifying potential 100-year flood hazard areas outside of FEMA-mapped zones.

Although the site does not have a determined flood level or detailed studies identifying potential 100-year flood hazard areas, multiple drainages traverse the site and may cause flooding after rain or a storm. Flow and flooding related to the project developed upon existing conditions were modeled in relation to the 100-year flood using the SDUH and HEC-RAS (see Appendix G.1). On-site flood depths estimated for a 100-year flood event are less than 5 feet; the average depth is about 3 feet across the portion of the project site subject to flooding. The project would implement **PDF-HY-1** which avoids localized impediments to flow and damage to project components by placing on-site electrical equipment 1 foot above base flood elevation or outside the limit of the 100-year flood hazard zone.

In addition, the project site is not downstream of a dam or located in an area likely to be affected by mudflows or debris flows. Likewise, the project is not located within flood hazard, tsunami, or seiche zones and does not risk release of pollutants due to project inundation (California Department of Conservation 2024). Therefore, with the implementation of **PDF-HY-1**, the project would not risk the release of pollutants due to project inundation. Impacts would be **less than significant**.

2.4.3.3 Water Quality and Water Quality Control Plan

Guidelines for the Determination of Significance

The following significance thresholds are taken from the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* (County of San Diego 2021a). A significant impact would result if the project would:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface water quality
- Conflict with or obstruct implementation of a water quality control plan

Analysis

The project site is located within the Jacumba Valley Groundwater Basin. DWR has designated the basin as very low priority (DWR 2019). Thus, neither the basin nor the groundwater extracted from the basin would be subject to a GSP, mandated by SGMA for DWR basins determined to be of medium to high priority.

Per the CGP, a SWPPP must be prepared and implemented during the construction phase. The SWPPP would include the project risk determination, identification of site runoff sampling locations, discussion of potential site pollutants, minimum BMPs, construction site monitoring plan, and the water pollution control drawings. The exact location and type of temporary BMPs to be installed during construction would depend on site-specific conditions, the construction schedule, and proposed activities, all of which would be outlined in the construction SWPPP. Typical BMPs for similar projects include energy dissipaters, silt fences, fiber rolls, gravel/sandbags, construction road stabilization, and stabilized construction entrances. As the project-specific SWPPP is prepared, the location, type, and number of specific BMPs may be refined based on the final designs to most effectively achieve the objective of reducing turbidity and other pollutant loads in stormwater runoff. The provisions of the CGP would ensure that site-specific conditions are taken into consideration when developing the construction SWPPP, that personnel developing and implementing the construction SWPPP are qualified, and that BMPs are adequately monitored and maintained.

Permanent water quality BMPs to be installed and maintained on the project site, per the BMP Design Manual, are also identified in the Standard SWQMP prepared for the project (see Appendix G.3). Private development projects are required to implement measures to ensure that pollutant discharges and runoff flows from development are reduced to the maximum extent practicable; and receiving water quality objectives are not violated throughout the life of the project. The Standard SWQMP includes details of construction and postconstruction BMPs to address potential and anticipated water quality impacts. Control measures to reduce the discharge of stormwater pollutants to the maximum extent practicable would include the following:

- Implementation of site design and source control BMPs
- Inclusion of low-impact development features that conserve natural features, set back development from natural water bodies, minimize imperviousness, maximize infiltration, and retain and slow runoff
- Compliance with requirements for construction-phase controls on sediment and other pollutants
- Outlet protection (e.g., energy dissipaters and velocity dissipation devices)
- Inclusion of infiltration swales where feasible to reduce localized increases in peak runoff

Construction of the project would have the potential to result in substantial additional sources of polluted runoff that would have short-term impacts on surface water quality through activities such as clearing and grading, stockpiling of soils and materials, concrete pouring, painting, and asphalt surfacing. Typically, solar facility construction includes equipment such as bulldozers, graders, water trucks, rollers, backhoe/trenching machine, excavator, heavy-duty rock trench, truck-mounted drilling rig, concrete trucks/concrete pumps, cranes, dump trucks, flatbed and low-bed trucks, pickup trucks, small hydraulic cranes, and rough-terrain cranes/forklifts. Pollutants associated with these construction activities that would substantially degrade water quality include soils, debris and other materials generated during clearing, fuels and other fluids associated with the equipment used for construction, paints, concrete slurries, asphalt, and other hazardous materials.

Pollutants associated with construction would degrade water quality if they are mobilized by stormwater or non-stormwater flows into surface waters. Sediment is often the most common pollutant associated with

construction sites because of the associated earthmoving activities and areas of exposed soil. Sediment that is washed off-site can result in turbidity in surface waters, which can impact aquatic species. In addition, when sediment is deposited into receiving water it can smother species, alter the substrate and habitat, and alter the drainage course. Hydrocarbons such as fuels, asphalt materials, oils, and hazardous materials such as paints and concrete slurries discharged from construction sites could also impact aquatic plants and animals downstream. Debris and trash could be washed into existing storm drainage channels to downstream surface waters and could impact wildlife and aesthetic value. However, as stated in Section 2.4.1, Existing Conditions, the average annual precipitation for the project area is low at 9.64 inches per year. Therefore, runoff from the project site is anticipated to be minimal during construction and would likely be concentrated in the ephemeral Boundary Creek, where planned construction is minimal. However, it is recognized that infrequent floods have the potential to inundate portions of the project site.

Under the NPDES CGP permit program, SWPPPs are prepared and the BMPs identified in the SWPPPs are implemented for construction sites greater than 1 acre to reduce the occurrence of pollutants in surface water. In compliance with applicable construction permits, the project would implement BMPs that minimize ground disturbance, protect slopes, reduce soil erosion, and limit or prevent various pollutants from entering surface water runoff.

The project's grading plans shall include details on the location and type of BMPs necessary to reduce the potential for project-induced erosion and scour, including temporary BMPs to be implemented during construction (per the statewide CGP), and permanent BMPs to be installed and maintained (per the Standard SWQMP). The exact location and type of temporary BMPs to be installed during construction depend on site-specific conditions, construction schedule, and proposed activities, all of which are outlined in the construction SWPPP that has been prepared for the project. Typical temporary BMPs used for similar projects include energy dissipaters, silt fences, fiber rolls, gravel/sandbags, construction road stabilization, and stabilized construction entrances. As the project-specific SWPPP is prepared, the location, type, and number of specific BMPs may be refined based on the final designs to most effectively achieve the objective of reducing turbidity and other pollutant loads in stormwater runoff. The provisions of the CGP ensure that site-specific conditions are taken into consideration when developing construction SWPPPs, that personnel developing and implementing construction SWPPPs are qualified, and that BMPs are adequately monitored and maintained.

During operations and maintenance (O&M), non-stormwater discharges would mainly include solar panel washing. At a rate of 0.81 af per year, applied over the solar facility's approximate 588 developed acres, water from panel washing would amount to less than 0.001 inch of wash water that might reach the soil. Such a small quantity would most likely not be sufficient to infiltrate to groundwater and would, instead, evaporate from the wetted soil. Thus, water applied for during O&M is unlikely to appreciably affect groundwater or surface water features and would have little to no potential to cause or contribute to exceedances of water quality objectives. Therefore, these activities would not violate Basin Plan standards or otherwise cause a significant threat to water quality.

The Standard SWQMP prepared as part of the project (see Appendix G.3) includes details of construction and postconstruction BMPs to address potential and anticipated water quality impacts. By implementing the pollution control measures to be included in the SWPPP and SWQMP, as well as the appropriate monitoring program included there within, the project would limit the possibility of contributing contaminants that might exceed local water quality objectives or contribute to the degradation of beneficial uses. The project would comply with the County stormwater standards manual (County of San Diego 2003a), County Code Section 67.813 (Inspection/Sampling), as amended, and County Code Section 67.811 (Additional Requirements for Land Disturbance Activities). Release of trash, sediment, and other construction-related pollutants from the project site would be controlled and minimized through preparation and implementation of a construction SWPPP and a Standard SWQMP, as previously described.

Impaired Water Bodies

As discussed in Section 2.4.1.3, Surface Water Quality, there are no impaired water bodies in the vicinity of the project site. However, the watershed in which the project site is located generally conveys flow indirectly to the Salton Sea, which is an impaired water under the CWA Section 303(d). CWA Section 303(d) impairments associated with the Salton Sea include arsenic, selenium, nutrients, salinity, chlorpyrifos, DDT, and enterococcus. These are impairments typically associated with agricultural activities, ranching, and/or surface mining (SWRCB 2022).

As discussed in Section 2.4.1.3, Surface Water Quality, stormwater runoff and non-stormwater discharges associated with construction and operation of the proposed project are unlikely to cause or contribute to water quality impairments related to these impairments as listed on the CWA 303(d) List of Water Quality Limited Segments. Additionally, while the project site may be indirectly connected to the Salton Sea watershed, due to the arid climate and the site's distance from the Salton Sea (approximately 45 miles), stormwater runoff from the project site is unlikely to reach these features before infiltrating into the ground or evaporating. The project would also not likely contribute to sediment loads since the stormwater and authorized non-stormwater discharges from the project site would represent a negligible fraction of the watershed.

Drinking Water Reservoirs

The project site does not drain into a drinking water reservoir. As discussed above, the project would implement measures to minimize adverse effects to water quality runoff exiting the project site. Regardless, the amount of water discharged from the project site in response to local rainfall is negligible when considered in the context of the total discharge from the entire watershed. Therefore, the project's contribution of pollutants to a hypothetical drinking water reservoir, if any, would not be substantial enough to exceed primary state or federal MCLs.

Stormwater Quality

As discussed in Section 2.4.1.2, Regional Hydrology and Drainage, a range of state and local water quality regulations and ordinances apply to the project that require the applicant to submit and implement a project-specific SWPPP during construction and a Standard SWQMP for O&M activities.

Because the project would consist of more than 1 acre, the applicant would be required to submit an NOI to the SWRCB to obtain approval to carry out construction activities under the CGP. This permit would include a number of design, management, and monitoring requirements for the protection of water quality and the reduction of construction-phase impacts related to stormwater (and some non-stormwater) discharges. Permit requirements would include preparation of a SWPPP, implementation and monitoring of BMPs, implementation of best available technology for toxic and non-conventional pollutants, implementation of best conventional technology for conventional pollutants, and periodic submittal of performance summaries and reports to the Colorado River Basin RWQCB. The SWPPP would apply to the project as a whole and would include reference to the major construction areas, temporary materials staging areas, access roads, and work associated with generation-tie (gen-tie) line facilities. BMPs to be implemented in accordance with the SWPPP and the Standard SWQMP would address alteration of drainage patterns, velocity and peak flow rates, and erosion control.

Non-Stormwater Discharges

Non-stormwater discharges during construction would include periodic application of water for dust control. Since the practice of dust control is necessary during windy and dry periods to prevent wind erosion and dust plumes, water would be applied in sufficient quantities to wet the soil, but not so excessively so

as to produce runoff from the construction site. Water applied for dust control would either quickly evaporate or locally infiltrate into shallow surface soils. This means that water applied for dust control is unlikely to appreciably affect groundwater or surface water features and thus would not cause or contribute to exceedances of water quality objectives contained in the Basin Plan. The project is not classified as a facility requiring coverage under the General Permit for Storm Water Discharges Associated with Industrial Activities.

Conclusion

For the previously stated reasons, the project would not violate applicable water quality objectives or WDRs and would comply with all federal, state, and local laws addressing water quality in stormwater and non-stormwater discharges. As implementation of the Standard SWQMP (and the construction and operational BMPs described therein) is a condition of the project, adverse impacts associated with water quality would be **less than significant**.

2.4.3.4 Groundwater Resources

Guidelines for the Determination of Significance

The following thresholds of significance are taken from the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2023). A significant impact would result if the project results in any of the following:

- For proposed projects in fractured rock basins, a soil moisture balance, or equivalent analysis, conducted using a minimum of 30 years of precipitation data, including drought periods, concludes that at any time groundwater storage is reduced to a level of 50% or less as a result of groundwater extraction.
- As an initial screening tool, offsite well interference will be considered a significant impact if after a five year projection of drawdown, the results indicate a decrease in water level of 5 feet or more in the offsite wells. If site-specific data indicates alluvium or sedimentary rocks exist which substantiate a saturated thickness greater than 100 feet in offsite wells, a decrease in saturated thickness of 5% or more in the offsite wells would be considered a significant impact.

Analysis

50% Reduction of Groundwater in Storage

Construction

During construction activities, the project would primarily use water for dust control during earthwork and grading. Concrete used during construction would be imported from off-site, and no concrete mixing would take place. No pre-wetting of the ground surface prior to grading would take place, and no water demand for noxious weed mitigation is assumed.

Phase I of the project would be constructed over 125 acres with 75,314 cubic yards of grading. The Phase I gen-tie line construction would disturb an additional 0.2 acres. Water used for hydroseeding would be applied at 2,500 gallons per acre to the disturbed area and daily dust control water would be applied. The Phase I construction water demand estimate is 14.8 af (Table 2.4-1). See Appendix G.4 for additional details regarding construction water demand.

Table 2.4-1. Estimated Construction Water Demand for Phase I

Activity	Description	Total Water Demand (af)
Mass Grading	Grading of 75,314 cubic yards. Uses an estimated on-site soil moisture content of 2% and optimum soil moisture content of 9% to gain compaction to determine required input of water	**11.2**
Daily Dust Control	Assumes 3,300 gallons per acre with or without tackifier. Half of the construction area, would not be continuously disturbed, and one application of water with tackifier would be sufficient for dust suppression per day. Water and tackifier would be applied to the remaining area three times per day.	**2.5**
Other Construction Needs	Water necessary for other construction needs, such as filling tanks for fire protection and hydroseeding	**1.05**
Total Phase I Construction Water Use		**14.8**

Source: INTERA (2025a) (see Appendix G.4)

Phase II of the project would be constructed over 436 acres with 274,686 cubic yards of grading. The Phase II gen-tie line construction would disturb an additional 0.2 acres. Water used for hydroseeding would be applied at 2,500 gallons per acre to the disturbed area, and daily dust control water would be applied. The Phase II construction demand estimate is 53.1 af (Table 2.4-2). See Appendix G.4 for additional details regarding construction water demand.

Table 2.4-2. Estimated Construction Water Demand for Phase II

Activity	Description	Total Water Demand (af)
Mass Grading	Grading of 75,314 cubic yards. Uses an estimated on-site soil moisture content of 2% and optimum soil moisture content of 9% to gain compaction to determine required input of water	**40.8**
Daily Dust Control	Assumes 3,300 gallons per acre with or without tackifier. Half of the construction area, would not be continuously disturbed, and one application of water with tackifier would be sufficient for dust suppression per day. Water and tackifier would be applied to the remaining area three times per day.	**8.8**
Other Construction Needs	Water necessary for other construction needs, such as filling tanks for fire protection and hydroseeding	**3.4**
Total Phase II Construction Water Use		**53.1**

Source: INTERA (2025a) (see Appendix G.4)

Operations and Maintenance

Project operation would require water for nonpotable use, dust control, panel washing, and fire protection. No landscaping irrigation is proposed for the operation and maintenance (O&M) of the proposed project. During operation, the project would require water for panel washing up to one time per year. Similar solar photovoltaic operations use approximately 0.3 gallons of water per square yard of panel. Based on the planned 20-MW capacity of the proposed project during Phase I, approximately 50,700 panels at approximately 30.8 square feet per panel totaling 1,560,000 square feet (173,333 square yards) may be washed up to one time per year. Annual water demand for Phase I panel washing would be up to approximately 0.16 af. Based on the planned 80-MW capacity of the proposed project during Phase II, approximately 202,744 panels at approximately 30.8 square feet per panel totaling 6,383,440 square feet (709,271 square yards) may be washed up to one time per year. Annual water demand for Phase II panel

washing would be approximately 0.65 af. Once both phases are operational, the annual panel washing water demand would be 0.81 af (see Appendix G.4).

Decommissioning

Activities associated with decommissioning would not include substantial earthmoving. It is estimated that the amount of water necessary to dismantle the solar facility would be less than that required for construction because there would be no need to use water to hydrate and compact on-site fills. The activities associated with decommissioning would not include grading. The only water demand during decommissioning would be for dust suppression and would be supplied by two 6,000-gallon water trucks. Phase I would require a water demand of 2.4 af for decommissioning, and Phase II would require 4.2 af for decommissioning for a total of 6.6 af (see Appendix G.4).

Conclusion

The Phase I construction water demand estimate is 14.8 af, and the Phase II construction demand estimate is 53.1 af. The total estimated construction water demand is 67.9 af. Once both phases are operational, annual panel washing water demand would be 0.81 af per year. Decommissioning of both phases would require 6.6 af of water. Overall, the project would use approximately 98.8 af of nonpotable water during construction, O&M, and decommissioning, assuming a project lifetime of 30 years.

The groundwater resources investigation report for the project (see Appendix G.5) presents an updated estimate of groundwater in storage, including methodology, calculations, and results. The estimate evaluates whether the water demands would maintain at least 50% of groundwater in storage over the 2,061-acre Jacumba Valley alluvial aquifer. Groundwater recharge is not included in the methodology to evaluate a worst-case scenario during a drought period with little to no recharge to the Jacumba Valley alluvial aquifer. The total nonpotable JCSD water demand for the proposed project and reasonably foreseeable projects over a 35-year period is 487.6 af.

JCSD extracts nonpotable groundwater from the Jacumba Valley alluvial aquifer on a limited basis. Nonpotable groundwater extraction is not suitable for human use, and its sale is used to defray the operating costs of the JCSD system for its residential and commercial customers. The groundwater basin in 2023 is estimated to have 8,639 af in storage, approximately 73.4% of the 11,870 af in storage that was estimated in 2007. Assuming no recharge to the aquifer, the proposed groundwater extraction of 487.6 af would reduce groundwater in storage in the basin to 8,151 af, approximately 68.7% of the storage that was estimated in 2007. Basin groundwater storage would remain above the County's determination of significance criterion of 50%. Therefore, impacts to groundwater storage would be **less than significant**.

Well Interference for Wells in Alluvial Basins

To assess the potential for groundwater extraction to draw down the groundwater table to the detriment of nearby groundwater-dependent habitat, or to cause well interference, projected drawdown within a 0.5-mile radius of the Highland Center Well and the Park Well was estimated. Pumping scenarios of 1 year and 5 years were used to calculate the potential long-term impacts on nearby groundwater-dependent habitats and off-site production wells. The closest active off-site well to both the Highland Center Well and Park Well is Well Km, owned by the Jacumba Valley Ranch Water Company.

Drawdown at the nearest off-site well and potential groundwater-dependent habitat was estimated under 1-year and 5-year scenarios for both the Highland Center Well and Park Well. The Highland Center 1-year scenario estimated drawdown based on the construction water demand of 139 af extracted from the Highland Center Well for 1 year. The Park Well 1-year scenario also estimated drawdown based on the

construction water demand of 139 af. The 5-year scenario, used for both the Highland Center Well and Park Well, estimates drawdown based on the combined total of construction water demand (278 af) and 3 years of O&M demand (5.06 af/yr). The total 5-year demand would be 293.18 af spread out over 5 years, equal to 58.65 af/yr or a continuous 36.5 gpm.

Drawdown at the closest off-site groundwater well (Well Km) to the Highland Center Well under the 1-year and 5-year scenarios would be 1.56 feet and 0.75 feet, respectively. Drawdown at the closest off-site groundwater well (Well Km) to the Park Well under the 1-year and 5-year scenarios is predicted to be 1.56 feet and 0.75 feet, respectively. Therefore, the estimated drawdown from both the Highland Center Well and the Park Well at the nearest off-site well, Well Km, would be less than the County threshold of significance of a decrease in groundwater level of 5 feet or more for an alluvial well.

Since actual conditions during groundwater extraction may vary from theoretical analysis, a groundwater monitoring and mitigation plan (GMMP) is a typical condition of approval for by the County for utility-scale renewable projects that are groundwater-dependent and ensures that pumping does not significantly impact existing well users. Thus, a GMMP has been prepared for the proposed project (see Appendix G.2). Incorporation of **PDF-HY-2** would ensure that the project would implement the GMMP (Section 2.4.6, Mitigation Measures and Project Design Features). With the implementation of **PDF-HY-2**, the total volume and rate of groundwater extracted from Highland Center Well and Park Wells would be monitored and documented throughout the duration of the project pumping. The implementation of **PDF-HY-2** would also provide for monitoring of the overall groundwater level in the project area. Therefore, impacts related to well interference would be **less than significant.**

2.4.4 Cumulative Impact Analysis

The geographic scope of cumulative effects on hydrology and water quality differs somewhat depending on the issue being addressed. The geographic scope for surface water quality and hydrology is typically watershed-based, whereby projects contributing flow to the same water bodies as the project would be considered. For groundwater impacts, the geographic scope of cumulative effects would be the groundwater aquifer affected by the project.

Project impacts to both surface water and groundwater resources were found to be less than significant. In the cumulative context, for wells within the same subbasin, each well's extraction adds to the cumulative drawdown of the basin as a whole, even if the volume relative to total basin storage is negligible or minor. Projects considered in the cumulative scenario include other known utility-scale renewable energy projects supplied nonpotable water by JCSD.

2.4.4.1 Cumulative, Hydrology, Drainage Patterns, and Water Quality

In the absence of regulatory controls, the primary impact of the project in the cumulative scenario would be alteration of the natural hydrology of the region through increases in the area covered by impervious surfaces, development of access driveways and utility corridors, and the release of non-point-source pollutants (e.g., motor fuels, trash, sediment). The typical impact of substantial increases in impervious surfaces is that peak flows within the watershed's drainages are greater in magnitude, shorter in duration, and more responsive to storm events, since a greater portion of precipitation is carried by surface runoff rather than percolated into the soil. New roads and/or transmission line corridors can often block or redirect stormwater flows if improperly designed. These impacts are undesirable with respect to flood hazards, water quality, and habitat quality.

However, the preliminary drainage study (see Appendix G.1) determined that the project would produce approximately 10.49 acres (0.0163 square mile) of impervious area. The impervious area would include the proposed concrete pads for electrical equipment, solar panel posts, and water tanks. The proposed all-weather access road would remain pervious. The preliminary drainage study determined that the additional impervious area represents 0.0068% of the watershed that is contributing to the drainage passing through the proposed site. This increase in impervious area constitutes a small enough area that would not change the overall drainage pattern. The water runoff would flow overland across the project site in a similar manner as it does in the predeveloped state. Thus, the additional impervious area would have minimal to no impact on existing watershed hydrologically (see Appendix G.1). Therefore, hydrology and drainage pattern impacts **would not be cumulatively considerable**.

2.4.4.2 Cumulative, Flood Hazards and Risk of Pollutant Release

A flood hazard analysis has not been conducted by FEMA for the project site, nor for much of the surrounding areas, and thus, a federally established flood risk has not been determined. The project site is not located within a 100-year floodplain area or other special flood hazard area as shown on a FIRM, a County Flood Plain Map, or County Alluvial Fan Map. In addition, no dams upstream of either the proposed project site or surrounding project sites have been identified; thus, these projects would not be subject to inundation in the event of a dam failure. Also, these sites would not be subject to seiche or tsunami (due to the great distance to the ocean or large body of water).

Flood hazard of the proposed project was evaluated in the preliminary drainage study (see Appendix G.1) using SDUH and HEC-RAS to estimate on-site flood inundation limits and depths for a 100-year flood 24-hour storm. The report determined that on-site flood depths estimated for a 100-year flood event are less than 5 feet for Area A (North) Node 106, Area A (North) Node 128, Area A (North) Node 156, Area A (North) Node 165, and Area A (North) Node 129. The average depth is about 3 feet across the portion of the project site subject to flooding. The proposed project would implement **PDF-HY-1**, which avoids localized impediments to flow and damage to project components by placing on-site electrical equipment above or outside the limit of potential 100-year flood hazard zones. Therefore, with the implementation of **PDF-HY-1**, the proposed project would not contribute to any cumulative alteration of a floodway or increase flood depths and would not place any habitable structures nor unanchored impediments to flow in a 100-year floodplain area. In addition, the only potential impact caused by the proposed project (potential alteration of drainage patterns and flood flows by the panel area fencing) is localized in nature and would not compound any other watershed impacts. Therefore, the proposed project, along with other projects occurring in the area, would not cumulatively contribute to the alteration of a floodway, nor increased flood depth, and impacts **would not be cumulatively considerable**.

2.4.4.3 Cumulative, Water Quality and Water Quality Control Plan

The project, along with other projects occurring in the area, would be required to comply with applicable federal, state, and local water quality regulations. The project, along with other projects of greater than 1 acre (which includes most of the projects in the cumulative scenario), would be required to obtain coverage under the NPDES CGP, which requires project proponents to identify and implement stormwater BMPs that effectively control erosion and sedimentation and other construction-related pollutants. Further, nearly all projects identified in the cumulative scenario would meet the definition of "new development and redevelopment projects" under the San Diego County MS4 Permit. Such projects are required to implement site design; source control; and, in some cases, treatment control BMPs to control the volume, rate, and water quality of stormwater runoff from the project during long-term operations. This is implemented locally by the County by requiring new development projects to submit and implement a SWQMP. In addition, the only potential impact caused by the proposed project (potential alteration of drainage

patterns and flood flows by the panel area fencing) is localized in nature and would not compound any other watershed impacts.

The project site overlies the Jacumba Valley Groundwater Basin, which would not be subject to a GSP, mandated by the SGMA. As noted above, the proposed project is not expected to violate any water quality standards, and measures would be taken both during construction and throughout operation to prevent potential contaminants from leaving the site by runoff. All projects in the general vicinity of the proposed project would equally be required to comply with these regulations and standards; thus, through compliance with RWQCB requirements and a NPDES permit, implementation of a SWPPP, and coordination with the USACE for any applicable permits, the project would not cumulatively conflict with or obstruct implementation of the Basin Plan. For these reasons, impacts of the project on water quality and any applicable water planning document (i.e., Basin Plan and/or GSP) would **not be cumulatively considerable**.

2.4.4.4 Cumulative, Groundwater Resources

The analysis completed in the groundwater resources investigation report (see Appendix G.5) to evaluate the cumulative impacts of pumping to supply construction water included all current and future projects with an appreciable water demand within the watershed study area, and therefore constitutes a cumulative impact analysis. The groundwater resources analysis incorporated historical climate data, which includes historical periods of increased rainfall and periods of extended drought. The results of this analysis concluded that reduction in groundwater storage, well interference impacts, and impacts to groundwater-dependent habitat and water quality would be less than significant. In addition, other renewable projects occurring in the area, would be required to prepare a GMMP similar to the proposed project that would ensure that groundwater-level monitoring would be performed in groundwater wells and that groundwater levels would be recorded during groundwater extraction. Therefore, the proposed project, along with other projects occurring in the area, would **not be cumulatively considerable**.

2.4.5 Significance of Impacts Prior to Mitigation

2.4.5.1 Hydrology and Drainage Patterns

The proposed project would result in an increase of 10.49 acres of impervious surfaces, and thus would not result in substantial changes to the rate, volume, and location of stormwater runoff. The proposed project would intersect the Boundary Creek watercourse and an unnamed tributary of the creek; however, these features have been altered and are now discontinuous or disconnected within the survey area. The project would also implement **PDF-HY-3** and the required Standard SWQMP, SWPPP, and requirements to obtain permits from the USACE and RWQCB pursuant to the CWA.

Impacts to water surface elevation in a watercourse would be less than significant. Impacts that result from increased velocities and peak flow rates exiting the project site that would cause flooding downstream or exceed the stormwater drainage system capacity would also be less than significant. Because implementation of the Standard SWQMP (and the construction and operational BMPs described therein) is a condition of the Major Use Permit, adverse impacts associated with hydrology would be **less than significant**.

The project proposes to fence the individual panel areas with chain-link fencing. Proposed breakaway chain-link fencing would be located where flows are perpendicular to the fencing and thus would not alter drainage patterns and/or block or redirect flood flows, which would cross ephemeral washes at a perpendicular angle and potentially trap sediment and detritus during heavy rainfall. Sediment, detritus,

and/or other debris that becomes trapped on one side of the panel area fencing during high flows could cause flow to back up behind the impediment and potentially alter drainage patterns (**Impact HY-1**).

2.4.5.2 Flood Hazards and Risk of Pollutant Release

The project site is not located within a 100-year floodplain area or other special flood hazard area as shown on a FIRM, a County flood plain map, or County alluvial fan map. In addition, the project site is not downstream of a dam or located in an area likely to be affected by mudflows or debris flows. The project also does not propose any habitable structures. **PDF-HY-1**, as described in Section 2.4.6, has been incorporated into the proposed project design to ensure that solar panel structures, inverter/transformer platforms, battery storage containers and other electrical components would not be impediments to flow. The only element of the proposed project that might locally alter drainage patterns and/or block or redirect flood flows would be the perimeter fencing, which would cross ephemeral washes at a perpendicular angle, and potentially trap sediment and detritus during heavy rainfall. Sediment, detritus and/or other debris that becomes trapped on one side of the perimeter fencing during high flows could cause flow to back up behind the impediment, potentially redirecting and/or concentrating flow outside the boundaries of currently mapped washes. It could result in additional scour and/or sedimentation that would not have otherwise occurred absent the perimeter fencing. For this reason, the impact of the proposed project (perimeter fencing element) with respect to altering drainage patterns and/or blocking or redirecting flood flows would be **potentially significant** (Impact HY-1).

2.4.5.3 Water Quality and Water Quality Control Plan

The proposed project would have a less than significant impact with respect to water quality because (1) the proposed project would not directly discharge to an impaired water body; (2) construction and operational sources of pollutants, including sediment, trash, and fuels, would be addressed through implementation of both a SWPPP and a Standard SWQMP for the proposed project; (3) the project site does not drain to a drinking water reservoir in the United States; (4) the potential non-stormwater discharges associated with the proposed project would require approval from the Colorado River RWQCB or the SWRCB (General WDRs for Discharges to Land with a Low Threat to Water Quality); and (5) adverse effects to groundwater quality would not occur because potential threats to groundwater quality as a result of construction, operation, and maintenance of the proposed project would be addressed through compliance with a construction SWPPP during construction and an operational SWPPP during the operating life. Therefore, with compliance of existing regulations the proposed project would result in **less-than-significant impacts** to surface water and groundwater quality.

The project site overlies the Jacumba Valley Groundwater Basin, DWR Basin No. 7-47 (DWR 2016). DWR, however, has designated the basin as very low priority (DWR 2019). Thus, the basin and groundwater extracted from the basin would not be subject to a GSP, mandated by the SGMA for DWR basins determined to be of medium to high priority. The project is not expected to violate any water quality standards, and measures would be taken both during construction and throughout operation to prevent potential contaminants from leaving the site by runoff. Through compliance with RWQCB requirements and a NPDES permit, implementation of a SWPPP, and coordination with the USACE for any applicable permits, the project would not conflict with or obstruct implementation of the Basin Plan. Impacts would be **less than significant**.

2.4.5.4 Groundwater Resources

During operation of the project, water demand would not exceed the threshold of 50% reduction in groundwater storage, nor would the project result in well interference above significance criterion or significantly impact groundwater-dependent ecosystems. In addition, a GMMP has been prepared for the

proposed project (see Appendix G.2). Incorporation of **PDF-HY-2** would ensure that the project would implement the GMMP. The GMMP details groundwater thresholds for off-site well interference and groundwater-dependent habitat; with the implementation of **PDF-HY-2**, groundwater-level monitoring would be performed in several wells to record groundwater levels during groundwater extraction. Therefore, impacts to groundwater as a result of the proposed project would be **less than significant**.

2.4.6 Mitigation Measures and Project Design Features

2.4.6.1 Mitigation Measures

Mitigation measure **HY-1** would mitigate potential impacts under **Impact HY-1** as follows.

M-HY-1 **Flood Fencing**. Prior to approval of final design plans, the applicant shall demonstrate to the satisfaction of the County Department of Public Works (DPW) Flood Control through hydrologic and hydraulic analyses, acceptable to DPW Flood Control and performed by a California-licensed engineer in accordance with standard engineering practice, that the design features for the perimeter fencing avoids the blockage and/or redirection of storm flows resulting from the accumulation of debris and/or detritus at wash crossings. This can be accomplished through a number of means such as a) use of breakaway fencing perpendicular to flood flows to prevent obstruction and accumulation of debris, b) use of fencing that spans washes (without posts) above the anticipated peak flow depth, or c) an alternative design measure that would avoid accumulations of detritus at perimeter fence wash crossings, subject to County approval.

The applicant shall show the proposed fencing design or alternative design measure on the final grading plans. The associated drainage study shall contain hydrologic and hydraulic analyses, acceptable to DPW Flood Control and performed by a California-licensed engineer in accordance with standard engineering practice, that model the proposed fencing and/or design measures and demonstrate that the fencing shall not cause alteration of drainage patterns and/or flood hazards from pre-project conditions. The drainage study shall be in compliance with the County hydrology manual (County of San Diego 2003b) and the County hydraulic design manual (County of San Diego 2014).

Prior to the approval of any grading and/or improvement plans and issuance of grading or construction permits, the drainage study and plans shall be approved. The County DPW Flood Control shall review and approve the hydrologic and hydraulic analyses contained in the drainage study and the final fencing design and layout to ensure the flood flow is fully mitigated to pre-project conditions.

2.4.6.2 Project Design Features

The Applicant has identified and committed to including the following project design features as part of the project to alleviate adverse hydrology and water quality effects, to the extent feasible.

PDF-HY-1 **Compliance with Flood Damage Prevention Ordinance**. Prior to approval of final design plans, the County DPW will verify that all project components located within the 100-year floodplain will comply with the County of San Diego Flood Damage Prevention Ordinance, County hydrology manual (County of San Diego 2003b), and County hydraulic design manual (County of San Diego 2014), which includes elevating all solar panels at maximum tilt, inverter/transformer platforms, battery storage containers, and all electrical components 1 foot above base flood elevation.

PDF-HY-2 **Implementation of GMMP for JCSD**. To ensure nonpotable water purchased from the Jacumba Community Services District (JCSD) does not result in impacts to the aquifers accessed by JCSD's nonpotable water production wells (Highland Center Well and Park Well), the Starlight Solar Developer will implement the Groundwater Mitigation Monitoring and Mitigation Plan (GMMP) for the Flat Creek watershed.

A groundwater monitoring report will be completed by a Professional Geologist or Professional Engineer licensed in the state of California and will be submitted to County Planning and Development Services (PDS) annually no later than 28 days following the end of the calendar year. Groundwater monitoring reports should be submitted for 5 years after proposed project construction has commenced. After 5 years, County PDS should determine if continuous reporting is required based on the effects of groundwater extraction from the previous 5 years. The annual reports will include the following information:

- Groundwater-level hydrographs and tabulated groundwater-level data for each accessible well in the groundwater-monitoring network
- Tabulated groundwater production volumes from JCSD nonpotable wells
- Documentation of any changes in well pumping or groundwater well conditions for wells in the groundwater-monitoring network
- Documentation of groundwater-dependent habitat monitoring, if necessary, as described in the GMMP

If the baseline groundwater levels at the wells included in the groundwater monitoring network are exceeded by 5 feet, County PDS will be notified via letter and email within 1 working day of the exceedance, or immediately after the exceedance is recognized. Additionally, if groundwater-level thresholds at the off-site wells are exceeded by their respective thresholds, pumping of JCSD nonpotable wells for the project will cease and County PDS will be notified via letter and email within 1 working day, or immediately after the exceedance is recognized.

PDF-HY-3 **Vegetative Cover On-Site During Operation**. In order to provide dust control and minimize erosion during project operation, at least 70% vegetation cover will be maintained during project operation on the portions of the solar facility development footprint within the perimeter fencing not overlain by vehicle access driveways and internal access, inverter/transformer platforms, battery storage containers, and the substation. These areas will be reseeded with a native hydroseed mix that will be approved by the County Landscape Architect prior to reseeding. A biologist will also review the native hydroseed mix prior to reseeding for compatibility with native habitats in the project area. The Applicant will ensure that at least 70% of the hydroseeded area is covered with vegetation within 1 year of occupancy. If this coverage threshold is not met, additional native hydroseed applications must be conducted in order to meet the 70% threshold. The applicant will submit a written report with photographic evidence of the vegetative cover to the County Landscape Architect 1 year after occupancy. This report will also include documentation of the date of hydroseeding and the type of native hydroseed mix. Subsequently, a report with photographic evidence will be submitted to the County Landscape Architect biannually (every other year) during operation.

2.4.7 Conclusion

2.4.7.1 Hydrology and Drainage Patterns

Impacts to water surface elevation in a watercourse and impacts that result from increased velocities and peak flow rates would be less than significant. Because implementation of the Standard SWQMP (and the construction and operational BMPs described therein) is a condition of the Major Use Permit and the because the project would implement project design feature **PDF-HY-3** (vegetative cover during project operation), adverse impacts associated with hydrology would be **less than significant**.

Sediment, detritus and/or other debris that becomes trapped on one side of the proposed perimeter fencing during high flows could cause flow to back up behind the impediment and potentially alter drainage patterns. With implementation of mitigation measure **M-HY-1** (perimeter fence design), this impact would be reduced to **less than significant**.

2.4.7.2 Flood Hazards and Risk of Pollutant Release

The project site is not located within a 100-year floodplain area or other special flood hazard area as shown on a FIRM, a County flood plain map, or County alluvial fan map. In addition, the project site is not downstream of a dam or located in an area likely to be affected by mudflows or debris flows. The project also does not propose any habitable structures. Thus, under this guideline, **no impacts** would occur.

PDF-HY-1, as described in Section 2.4.6, has been incorporated into the proposed project design to ensure that solar panel structures, inverter/transformer platforms, battery storage containers and other electrical components would not be impediments to flow. The only element of the proposed project that might locally alter drainage patterns and/or block or redirect flood flows is the perimeter fencing. The impact of the perimeter fencing element with respect to altering drainage patterns and/or blocking or redirecting flood flows would be potentially significant. With implementation of mitigation measure **M-HY-1**, this impact would be reduced to **less than significant**.

2.4.7.3 Water Quality and Water Quality Control Plan

The proposed project would not violate applicable water quality objectives or WDRs and would comply with all federal, state, and local laws addressing water quality in stormwater and non-stormwater discharges. Therefore, the proposed project would not exceed the significance thresholds identified earlier, and impacts would be **less than significant**.

Through compliance with RWQCB requirements and NPDES permit, implementation of a SWPPP, and coordination with the USACE for any applicable permits, the project would not conflict with or obstruct implementation of the Basin Plan. Impacts would be **less than significant**.

2.4.7.4 Groundwater Resources

During operation of the project, water demand would not exceed the threshold of 50% reduction in groundwater storage, nor would the project result in well interference above significance criterion or significantly impact groundwater-dependent ecosystems. In addition, a GMMP has been prepared and included in the project. The GMMP details groundwater thresholds for off-site well interference and groundwater-dependent habitat; with the implementation of **PDF-HY-2**, groundwater-level monitoring would be performed in several wells to record groundwater levels during groundwater extraction. Therefore, impacts to groundwater as a result of the project would be **less than significant**.

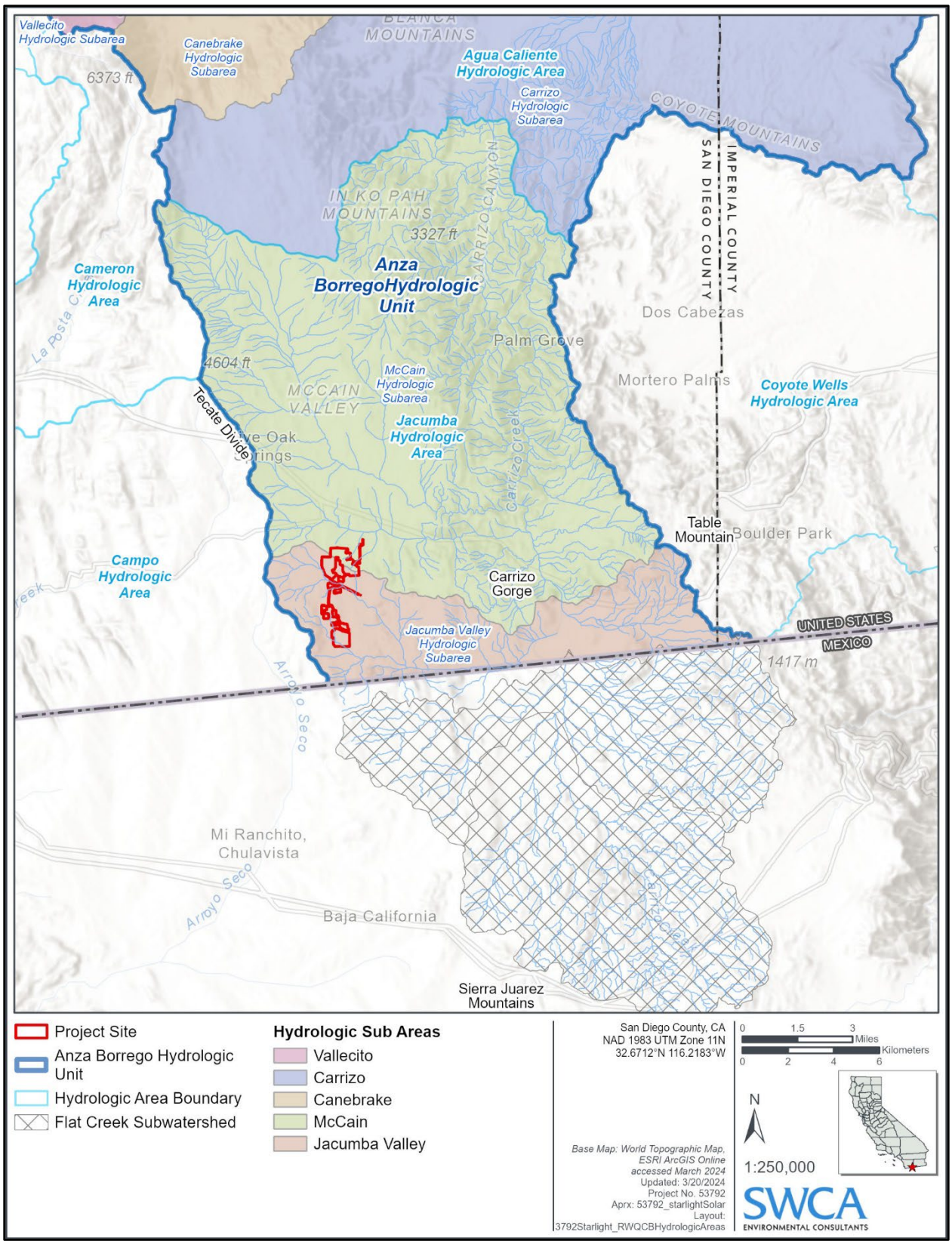

Figure 2.4-1. Hydrologic Subareas in the Project Vicinity

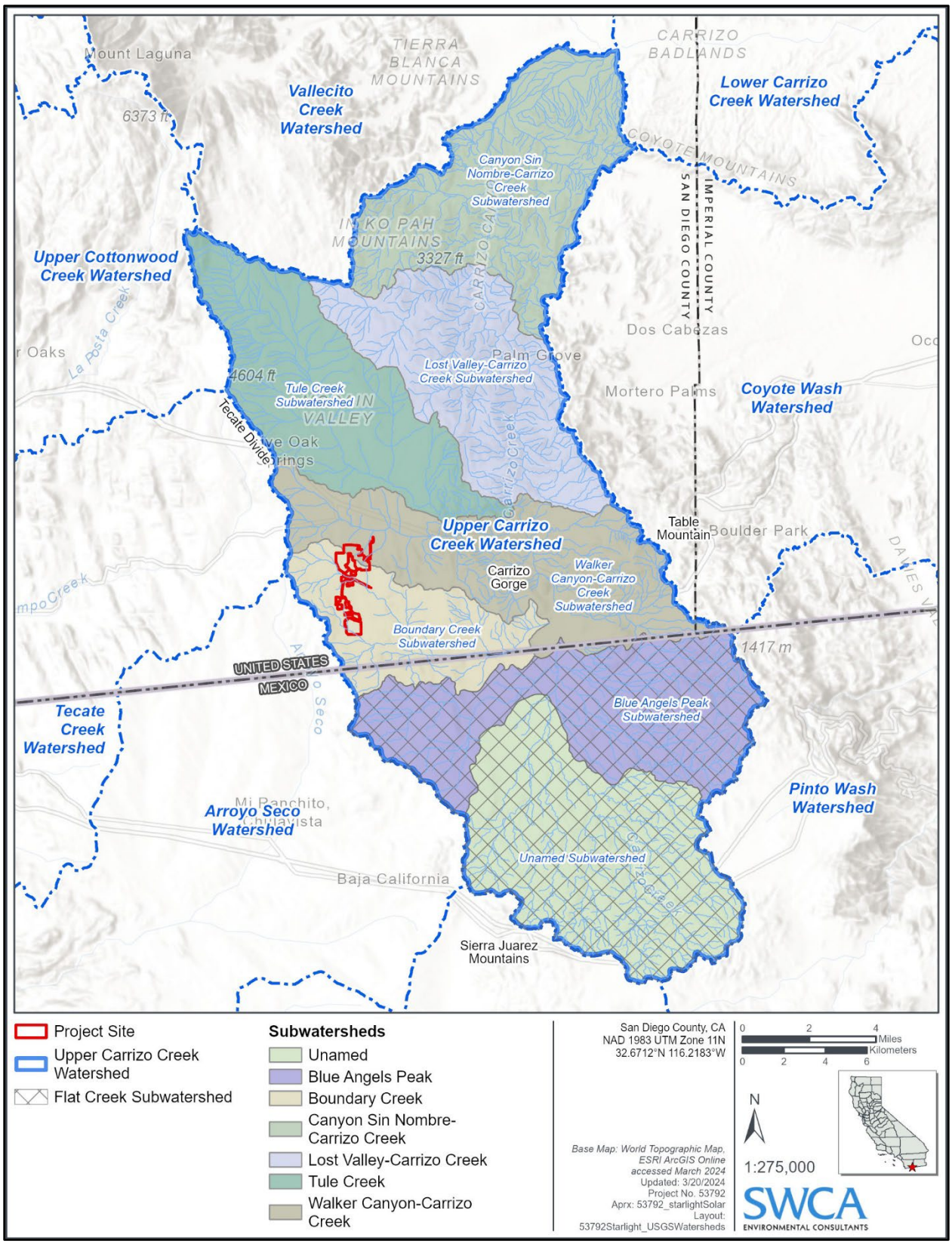

Figure 2.4-2. Subwatersheds in the Project Vicinity

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2.5 Noise

This section of the Environmental Impact Report (EIR) discusses and evaluates potential noise and vibration impacts resulting from the implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical study prepared for the project in accordance with the *County Guidelines for Determining Significance – Noise* (County of San Diego 2009a) and *County of San Diego Report Format and Content Requirements – Noise* (County of San Diego 2009b):

- *Noise Analysis Report, Starlight Solar Project* (dBF Associates 2024) (Appendix J.1 of this EIR)
- *Construction Traffic Noise Memorandum, Starlight Solar Project* (dBF Associates 2025) (Appendix J.2 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the impacts of noise during construction and operation to nearby residents and wildlife. These concerns are addressed in this section of the EIR where applicable and within the noise analysis report (see Appendix J.1). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

2.5.1 Existing Conditions

2.5.1.1 Environmental Noise Background

Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity and that interferes with or disrupts normal activities. The human environment is characterized by a certain consistent noise level which varies by location and is termed ambient noise. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, perceived importance of the noise and its appropriateness in the setting, time of day and type of activity during which the noise occurs, and sensitivity of the individual.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air, and are sensed by the human ear. Sound is generally characterized by several variables, including frequency and intensity. Frequency describes the sound's pitch and is measured in cycles per second, or hertz (Hz), whereas intensity describes the sound's loudness and is measured in decibels (dB), which are measured using a logarithmic scale. A sound level of 0 dB is approximately the threshold of human hearing. Normal speech has a sound level of approximately 60 dB. Sound levels above about 120 dB begin to be felt inside the human ear as discomfort and eventually as pain at still higher levels. The minimum change in the sound level of individual events that an average human ear can detect is about 3 dB. The average person perceives a change in sound level of about 10 dB as a doubling (or halving) of the sound's loudness; this relation holds true for sounds of any loudness. Sound levels of typical noise sources and environments are provided in Table 2.5-1.

Because of the logarithmic nature of the dB unit, sound levels cannot be added or subtracted directly and are somewhat cumbersome to handle mathematically. A simple rule is useful, however, in dealing with sound levels. If a sound source generating a sound level is added to another sound source generating the same sound level, the resultant sound level increases by 3 dB, regardless of the initial sound level. Thus, for example, 60 dB + 60 dB = 63 dB, and 80 dB + 80 dB = 83 dB.

The normal human ear can detect sounds that range in frequency from about 20 Hz to 20,000 Hz. However, all sounds in this wide range of frequencies are not heard equally well by the human ear, which is most

sensitive to frequencies in the range of 1,000 Hz to 4,000 Hz. This frequency dependence can be taken into account by applying a correction to each frequency range to approximate the human ear's sensitivity within each range. This is called A-weighting and is commonly used in measurements of community environmental noise. The A-weighted sound pressure level (abbreviated as dBA) is the sound level with the "A-weighting" frequency correction. In practice, the level of a noise source is conveniently measured using a sound level meter that includes a filter corresponding to the dBA curve.

Table 2.5-1. Sound Levels of Typical Noise Sources and Noise Environments

Noise Source (at Given Distance)	Noise Environment	A-Weighted Sound Level (dBA)	Human Judgment of Noise Loudness (Relative to Reference Loudness of 70 dB)
Military jet take-off with afterburner (50 feet)	Carrier flight deck	140	128 times as loud
Civil defense siren (100 feet)		130	64 times as loud
Commercial jet take-off (200 feet)		120	32 times as loud **Threshold of Pain**
Pile driver (50 feet)	Rock music concert inside subway station (New York)	110	16 times as loud
Ambulance siren (100 feet) Newspaper press (5 feet) Gas lawn mower (3 feet)		100	8 times as loud **Very Loud**
Food blender (3 feet) Propeller plane flyover (1,000 feet) Diesel truck (150 feet)	Boiler room Printing press plant	90	4 times as loud
Garbage disposal (3 feet)	Noisy urban daytime	80	2 times as loud
Passenger car, 65 miles per hour (25 feet) Living room stereo (15 feet) Vacuum cleaner (10 feet)	Commercial areas	70	**Reference Loudness** **Moderately Loud**
Normal speech (5 feet) Air-conditioning unit (100 feet)	Data processing center Department store	60	1/2 as loud
Light traffic (100 feet)	Large business office Quiet urban daytime	50	1/4 as loud
Bird calls (distant)	Quiet urban nighttime	40	1/8 as loud **Quiet**
Soft whisper (5 feet)	Library and bedroom at night Quiet rural nighttime	30	1/16 as loud
	Broadcast and recording studio	20	1/32 as loud **Just Audible**
		0	1/64 as loud **Threshold of Hearing**

Source: dBF Associates (2024) (see Appendix J.1)

Because community noise fluctuates over time, a single measure called the equivalent sound level (Leq) is often used to describe the time-varying character of community noise. The Leq is the energy-averaged A-weighted sound level (dBA) during a measured time interval. It is equal to the level of continuous steady sound containing the same total acoustical energy over the averaging time period as the actual time-varying sound. Additionally, it is often desirable to know the acoustic range of the noise source being measured. This is accomplished through the maximum sound level (Lmax) and minimum sound level (Lmin) indicators, which represent the root-mean-square (RMS) maximum and minimum noise levels obtained

during the measurement interval. The Lmin value obtained for a particular monitoring location is often called the "acoustic floor" for that location.

The Community Noise Equivalent Level (CNEL) is a descriptor representing a 24-hour, time-weighted, annual average noise level based on the dBA. In the calculation process, noise occurring in the evening time period (7:00 p.m. to 10:00 p.m.) is penalized by adding 5 dB, while noise occurring in the nighttime period (10 p.m. to 7 a.m.) is penalized by adding 10 dB. These time periods and dB increases are intended to reflect a typical person's increased sensitivity to noise during late night and early morning hours. This descriptor is used by the State of California and the County of San Diego (County) to evaluate land-use compatibility with regard to noise (County of San Diego 2009a).

2.5.1.2 Environmental Vibration Background

Structures, both above and below ground are susceptible to vibration impacts. Vibrations may be caused by the movement of heavy equipment, or from explosive energy such as blasting. Energy escapes blasting to generate air blast vibrations as well as ground vibrations through the soil and rock. Both air and ground vibrations create waves which move and disturb the medium through which they travel. When these waves encounter a structure, they may cause it to shake. Ground vibrations enter a building through its basement or foundation. Air blast enters through walls and roof. Since air blast waves travel faster than ground vibrations, occupants in structures far from a blast site may experience shaking from vibration and air blast as two separate events.

Ground-borne vibration is defined as any oscillatory motion induced in a structure or mechanical device as a direct result of some type of input excitation. Vibration consists of waves transmitted through solid material. There are several types of wave motion in solids, unlike in air, including compressional, shear, torsional, and bending. The solid medium can be excited by forces, moments, or pressure fields.

Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may consist of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hz. Most environmental vibrations consist of a composite, or "spectrum" of many frequencies, and are generally classified as broadband or random vibrations. The normal frequency range of most ground-borne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz.

Ground-borne vibrations are expressed in terms of the peak particle velocity (PPV) in inches per second (in/sec). The particle velocity is the velocity of the soil particles resulting from a disturbance. Agencies such as the federal Office of Surface Mining (OSM) use the PPV descriptor because it has been shown to correlate with both structural damage thresholds and human perception of vibration, which often leads to complaints. PPV has a close to linear relationship with the stresses that buildings are subjected to when exposed to vibration (see Appendix J.1).

Noise and airborne vibration energy that escapes during blasting is called an air blast. An air blast is a pressure disturbance that travels through the air like any other sound, and it is quantified in the same manner as any noise event. Because of the impulsive nature of the blast, it is commonly referred to as an "over-pressure" (a temporary increase in air pressure over the standard atmospheric pressure). Generally, air blasts are of short duration, usually 2 to 10 seconds. Because the air blast contains mostly low frequencies (typically less than 250 Hz), it is often felt rather than heard. The over-pressure (and resultant noise) is a function of the source strength (charge weight), weather conditions, and distance to the receiver. The peak sound level (Lpeak) is the maximum instantaneous sound level during a stated time and is often used for measurement of blast noise (see Appendix J.1).

2.5.1.3 Environmental Setting and Location

The 588-acre project site is located south of Old Highway 80, between Jewel Valley Road and Tule Jim Lane, in the Boulevard Subregional Planning Area of unincorporated San Diego County. Surrounding land uses consist of single-family residences and vacant land. The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) designates the project site as Rural Lands 80 (RL-80) and Semi-Rural Residential (SR-10), and the County's Zoning Ordinance identifies the site as General Rural (S92).

2.5.1.4 Existing Noise Conditions

Some land uses are considered sensitive to noise. Noise-sensitive receptors are land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise. They often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries. Industrial, commercial, agricultural, and urban reserve land uses are generally not considered sensitive to ambient noise.

Noise-sensitive land uses (NSLUs) near the site include the single-family residences to the north, east, and west; and Clover Flat Elementary School approximately 0.78 mile to the northwest. The nearest sensitive receptors to the project include residences approximately 150 feet west, in the vicinity of sound Measurement Location (ML) 2 in Figure 2.5-1. The primary noise source in the project vicinity is distant vehicular traffic on Interstate 8 (I-8) and vehicular traffic on Old Highway 80. There are no additional NSLUs that are reasonably foreseeable in the project area.

2.5.1.5 Noise Measurement Survey

A noise measurement survey of the existing ambient noise environment consisting of a series of sound level measurements was conducted at nine locations (ML1 through ML9) in the project area on Wednesday, June 8, 2022. The measurement results are shown in Table 2.5-2 below and correspond to the locations depicted on Figure 2.5-1. The measured sound levels in the project area ranged from approximately 30 dBA Leq to 43 dBA Leq.

Methodology

A RION Model NL-31 American National Standards Institute (ANSI) Type 2 Integrating Sound Level Meter was used as the data-collection device. The meter was mounted to a tripod and placed roughly 5 feet above local ground to simulate the average height of the human ear. The sound level meter was calibrated before and after the measurement periods.

Weather conditions during the measurements were 80 to 95 degrees Fahrenheit (°F), 50% to 60% relative humidity, clear skies, and 1 to 4 miles per hour (mph) wind from the west. The measured sound levels in the project area ranged from approximately 30 to 43 dBA Leq.

The Cadna/A Noise Prediction Model was used to estimate project-generated hourly noise levels. Cadna/A is a Windows-based software program that predicts and assesses noise levels near noise sources. The model uses industry-accepted propagation algorithms and accepts sound power levels (in dB with reference level of 1 picoWatt) based on International Organization for Standardization (ISO) standard 9613-2 (ISO 1996). ISO 9613-2 is an internationally recognized standard that establishes a method for calculating the attenuation of sound during propagation outdoors, in order to predict the levels of environmental noise at a distance from a variety of sources. The method predicts the equivalent continuous dBA.

The project site configuration, including ground elevations and equipment heights, was imported into Cadna/A from the project CAD files. Because of the uncertainty associated with any computer model, the site operating parameters were designed to evaluate a worst-case condition. Model receptors were placed at project property lines closest to the given activities, 5 feet above ground level.

Table 2.5-2. Ambient Sound Levels and Noise Sources in the Project Area

Measurement Location		Time	Leq	Lmin	Lmax	L10	L50	L90	Noise Sources
ML1	32.6465548°N, 116.2886682°W 1758 Jewel Valley Road	11:00–11:15	43.0	30.9	55.4	46.4	40.1	34.2	Wind in trees, birds, light vehicle, two high overhead jets
ML2	32.6555851°N, 116.2865613°W	11:30–11:45	35.3	28.3	49.9	38.2	33.3	30.9	Distant I-8, insects, two high overhead jets
ML3	32.6599830°N, 116.2730700°W Tule Jim Lane	12:10–12:25	33.7	25.2	47.3	36.2	32.2	28.9	Distant I-8, wind in trees
ML4	32.6509663°N, 116.2728720°W Tule Jim Lane	14:15–14:30	37.7	25.6	52.3	38.0	32.5	27.2	Distant I-8, wind in bushes, distant overhead jet
ML5	32.6464989°N, 116.2720713°W 1635 Tule Jim Lane	14:35–14:50	42.1	25.2	56.3	40.7	30.9	26.6	Insects, wind, distant roadway traffic
ML6	32.6443169°N, 116.2727774°W 1631 Tule Jim Lane	14:55–15:10	37.0	22.9	50.4	40.7	32.0	26.0	Birds, distant roadway traffic, distant overhead jet
ML7	32.6415691°N, 116.2784664°W	15:10–15:25	32.8	24.6	55.4	35.8	30.2	26.5	Insects, vehicle on Jewel Valley Road, distant overhead jet
ML8	32.6331360°N, 116.2797773°W Hidden Jewel horse ranch	15:30–15:45	29.8	20.7	51.4	29.3	24.3	22.3	Horses, insects, wind
ML9	32.6585602°N, 116.2865962°W	16:10–16:25	37.6	29.1	55.1	40.4	35.0	31.4	Distant I-8 traffic, wind, birds

Note: All sound levels given in dBA.
L10 = sound level that is exceeded for 10% of the measurement time.
L50 = sound level that is exceeded for 50% of the measurement time.
L90 = sound level that is exceeded for 90% of the measurement time.

2.5.2 Regulatory Setting

2.5.2.1 Federal Regulations

Federal Office of Surface Mining

The OSM, formerly known as U.S. Bureau of Mines, recommends a PPV safety level of 2.0 in/sec for residential structures. As stated in 30 Code of Federal Regulations (CFR) 816.67(b)(1)(i), which contains the limits included in U.S. Bureau of Mines publication RI8485, "airblast shall not exceed the maximum sound limits listed below at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area," as shown in Table 2.5-3 (see Appendix J.1).

Table 2.5-3. Federal Maximum Allowable Sound Levels for Airblasts

Lower Frequency Limit of Measuring System, in Hz (±3 dB)	Maximum Level (dB)
0.1 Hz or lower—flat response[1]	134 peak
2 Hz or lower—flat response	133 peak
6 Hz or lower—flat response	129 peak
C-weighted—slow response[1]	105 peak dBC

[1]Only when approved by the regulatory authority.

Source: 30 CFR 816.67(b)(1)(i)

As stated in 30 CFR 816.67(d)(2)(i), which contains the limits included in U.S. Bureau of Mines publication RI8508, the "maximum ground vibration shall not exceed the following limits at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area," as shown in Table 2.5-4.

Table 2.5-4. Federal Maximum Allowable Ground Vibrations

Distance (*D*) from the Blasting Site (feet)	Maximum Allowable Peak Particle Velocity (*V*max) for Ground Vibration (in/sec)[1]	Scaled Distance Factor to Be Applied without Seismic Monitoring (*Ds*)
0 to 300	1.25	50
301 to 5,000	1.00	55
5,001 and beyond	0.75	65

[1]Ground vibration shall be measured as the particle velocity. Particle velocity shall be recorded in three mutually perpendicular directions. The maximum allowable peak particle velocity shall apply to each of the three measurements.

Source: 30 CFR 816.67(d)(2)(i)

2.5.2.2 State Regulations

California Noise Control Act

Section 46000 of the California Health and Safety Code finds that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

2.5.2.3 Local Regulations

County of San Diego General Plan

The County establishes noise compatibility guidelines in the Noise Element of its General Plan (County of San Diego 2011b). The Noise Element characterizes the noise environment in San Diego County, establishes noise and land use compatibility standards, sets limitations on sound levels to be received by NSLUs, and outlines goals and policies to achieve these standards. The Noise Element also describes the County's goals for achieving the standards and introduces policies designed to implement the goals. Under implementation of the General Plan update, the County would use the noise compatibility guidelines to determine the compatibility of land uses when evaluating proposed development projects. The noise

compatibility guidelines indicate ranges of compatibility and are intended to be flexible enough to apply to a range of projects and environments.

In the Single-Family Residential land use category, noise levels up to 60 dBA CNEL are considered Acceptable at outdoor use areas; noise levels up to 75 dBA CNEL are considered Conditionally Acceptable.

The following policies from the Noise Element are relevant to the project:

- **N-1.2 Noise Management Strategies.** Require the following strategies as higher priorities than construction of conventional noise barriers where noise abatement is necessary:
    - Avoid placement of noise sensitive uses within noisy areas
    - Increase setbacks between noise generators and noise sensitive uses
    - Orient buildings such that the noise sensitive portions of a project are shielded from noise sources
    - Use sound-attenuating architectural design and building features
    - Employ technologies when appropriate that reduce noise generation (i.e., alternative pavement materials on roadways).
- **N-2.1 Development Impacts to Noise Sensitive Land Uses.** Require an acoustical study to identify inappropriate noise level where development may directly result in any existing or future noise sensitive land uses being subject to noise levels equal to or greater than 60 CNEL and require mitigation for sensitive uses in compliance with the noise standards listed in Table N-2 of the County's General Plan Noise Element.
- **N-3.1 Groundborne Vibration**. Use the Federal Transit Administration and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that sensitive uses may have to ground-borne vibration from trains, construction equipment, and other sources.
- **N-6.2 Recurring Intermittent Noise**. Minimize impacts from noise in areas where recurring intermittent noise may not exceed the noise standards listed in Table N-2, but can have other adverse effects.
- **N-6.4 Hours of Construction.** Require development to limit the hours of operation as appropriate for non-emergency construction and maintenance, trash collection, and parking lot sweeper activity near noise sensitive land uses.

County of San Diego Noise Ordinance

The San Diego County Code of Regulatory Ordinances (County Code) Sections 36.401–36.435 (County Noise Ordinance) establishes prohibitions for disturbing, excessive, or offensive noise as well as provisions such as sound level limits for the purpose of securing and promoting the public health, comfort, safety, peace, and quiet for its citizens. Planned compliance with sound level limits and other specific parts of the ordinance allows presumption that the noise is not disturbing, excessive, or offensive. Limits are specified depending on the zoning placed on a property (e.g., varying densities and intensities of residential, industrial, and commercial zones). Where two adjacent properties have different zones, the sound level limit at a location on a boundary between two properties is the arithmetic mean of the respective limits for the two zones, except for extractive industries. The 1-hour average sound level limit applicable to extractive industries, including but not limited to borrow pits and mines, shall be 75 dBA at the property line regardless of the zone in which the extractive industry is located. It is unlawful for any person to cause or allow the creation of any noise that exceeds the applicable limits of the County Noise Ordinance at any point on or beyond the boundaries of the property on which the sound is produced.

Section 36.404, General Sound Level Limits, of the County Noise Ordinance contains sound level limits specific to types of land uses. Sound level limits are in terms of a 1-hour average sound level. The allowable noise limits depend upon the County's zoning district and time of day. The proposed project and adjacent properties would be located in County Noise Ordinance Zone (1), as they are within areas zoned S92 (General Rural). Table 2.5-5 lists the sound level limits for each zone within San Diego County.

Table 2.5-5. County of San Diego Noise Ordinance, Sound Level Limits in dBA

Zone	Time Period	1-Hour Average Sound Level Limits (dBA)
R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92 and R-V and R-U with a density of less than 11 dwelling units per acre	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	50 45
R-RO, R-C, R-M, S-86, V-5 and R-V and R-U with a density of 11 or more dwelling units per acre	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	55 50
S-94, V-4 and all other commercial zones	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	60 55
V1, V2 V1, V2 V1 V2	7:00 a.m. to 7:00 p.m. 7:00 p.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m. 10:00 p.m. to 7:00 a.m.	60 55 55 50
V3	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	70 65
M-50, M-52 and M-54	Any time	70
S-82, M-56 and M-58	Any time	75
S-881	–	–

Source: County of San Diego Noise Ordinance Section 36.404: Table 36.404

[1] S-88 zones are Specific Planning Areas. The sound level limits that apply in an S-88 zone depend on the use of the property.

Section 36.404 of the County Noise Ordinance also includes the following regulations:

(b) Where a noise study has been conducted and the noise mitigation measures recommended by that study have been made conditions of approval of a Major Use Permit, which authorizes the noise generating use or activity and the decision making body approving the Major Use Permit determined that those noise mitigation measures reduce potential impacts to a level below significance, implementation and compliance with those noise mitigation measures shall constitute compliance [with the 1-hour average sound levels identified in Table 2.5-5].

(d) If the measured ambient noise level exceeds the applicable limit in Table 36.404 [Table 2.5-5], the allowable one-hour average sound level shall be the one-hour average ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.

(e) The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones. The one-hour average sound level limit applicable to extractive industries, however, including but not limited to borrow pits and mines, shall be 75 decibels at the property line regardless of the zone in which the extractive industry is located.

(f) A fixed-location public utility distribution or transmission facility located on or adjacent to a property line shall be subject to the sound level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the facility is located.

Section 36.408. Hours of Operation of Construction Equipment. This section sets limits on the time of day and days of the week that construction can occur, as well as setting noise limits for construction activities. In summary, the allowable hours for the operation of construction equipment are 7:00 a.m. to 7:00 p.m. Monday through Saturday. No construction is allowed on Sundays and holidays except at private residences.

Section 36.409 Sound Level Limitations on Construction Equipment. This section requires that except for emergency work, between the hours of 7:00 a.m. and 7:00 p.m., no equipment shall be operated so as to cause an 8-hour average construction noise level in excess of 75 dBA when measured at the boundary line of the property where the noise source is located, or on any occupied property where the noise is being received.

Section 36.410. Sound Level Limitations on Impulsive Noise. In addition to the noise regulations under Section 36.404 and the limitations on construction equipment in Sections 36.408 and 36.409, the County Noise Ordinance includes the following sound limitations for blasting and other activities that generate impulsive noise. Under this section, except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 2.5-6, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25% of the minutes in any 1-hour measurement period. The maximum sound level depends on the use being made of the occupied property as shown in Table 2.5-6.

Table 2.5-6. County of San Diego Maximum Allowable Sound Levels (Impulsive) Measured at Occupied Property in dBA

Occupied Property Use	Maximum Level (dBA)
Residential, village zoning or civic use	82
Agricultural, commercial or industrial	85

Source: County of San Diego Noise Ordinance Section 36.410: Table 36.410A

County of San Diego Consolidated Fire Code – Blasting Regulations

Blasting activity must conform to the guidelines specified in the County Consolidated Fire Code, Section 96.1.5607.16 (County of San Diego 2023). Blasting must be conducted by a blaster who has been approved by the Sheriff to conduct blasting operations and who has been placed on the list of approved blasters. Residents within 600 feet of blasting must be notified at least 24 hours prior to the blast. Blasting shall only be allowed Monday through Saturday, between the hours of 7:00 a.m. and 6:00 p.m. or half an hour before sunset, whichever occurs first, unless special circumstances warrant another time or day and the Issuing Officer grants approval of the change in time or day.

The owner of any property in an unincorporated area of San Diego County on which any blasting is intended to occur, shall give, or cause to be given, a one-time notice in writing, for any proposed blasting to the local fire agency and dispatch center and to all residences, including mobile homes, and businesses within 600 feet of any potential major blast location or 300 feet from any potential minor blast location. The notice shall be given not less than 24 hours, but not more than 1 week, before a blasting operation and shall be in a form approved by the Issuing Officer. The minimum 24-hour notice requirement may be reduced to a lesser period but not less than 1 hour if the Issuing Officer determines that special circumstances warrant

the reduction in time. Adequate precautions shall be taken to reasonably safeguard persons and property before, during and after blasting operations. These precautions shall include the following:

1. The blaster shall retain an inspector to inspect all buildings and structures, including mobile homes, within 300 feet of the blast site before blasting operations, unless inspection is waived by the owner and/or occupant.
2. An inspector shall complete and sign pre-blast inspection reports identifying all findings and inspection waivers.
3. The blaster shall retain an inspector to conduct a post-blast-inspection of any building and structure for which a written complaint alleging blast damage has been received. A written report of the inspection shall be immediately filed with the Issuing Officer and provided to any person who made a complaint for damages.
4. All major blasting operations shall be monitored by an approved seismograph located at the nearest structure within 600 feet of the blasting operation. All daily seismograph reports shall be maintained by the blaster for 3 years from the blasting.

County Guidelines for Determining Significance: Noise

The County of San Diego published guidelines for determining the significance of noise-sensitive uses affected by airborne noise (County of San Diego 2009a). The guidelines consider a significant impact to occur if a project were to cause the exterior noise to exceed 60 dB (CNEL) or cause an increase of 10 dB (CNEL) over preexisting noise levels at outdoor living areas or private usable open space.

This document also provides guidelines for determining the significance of ground-borne vibration and noise impacts for use during the preparation of California Environmental Quality Act (CEQA) documents. Vibration is considered significant if project implementation would expose specific uses (organized into three categories) to ground-borne vibration or noise equal to or in excess of levels determined by the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment* (Federal Transit Administration 2006).

2.5.3 Analysis of Project Effects and Determination as to Significance

2.5.3.1 Guidelines For Determination of Significance

The following thresholds are summarized from the County Noise Ordinance and the *County of San Diego, Guidelines for Determining Significance – Noise* (County of San Diego 2009a). A significant impact would result if the project would result in any of the following:

- **Construction Noise:** Per the County Noise Ordinance Section 36.409, construction noise would be significant if it exceeded an average sound level of 75 dB for an 8-hour period, between 7:00 a.m. and 7:00 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.
- **Impulse Noise:** Per the County Noise Ordinance Section 36.410, impulse noise or air blast would be significant if it exceeded 82 dBA for 25% of a 1-hour measurement (L25) at the boundary of the residential, village zoning or civic use from which the sound emanates; or 85 dBA L25 if measured during an hour at the boundary of the commercial, agricultural, or industrial use from which the sound emanates.

- **Exterior Locations:** Per the Noise Element of the County General Plan, operational noise levels would be significant if they exceed 60 dB (CNEL) or create an increase of more than 10 dB (CNEL) over preexisting noise. In the case of single-family residential detached NSLUs, exterior noise shall be measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum area:
    - Net lot area up to 4,000 square feet: 400 square feet
    - Net lot area 4,000 square feet to 10 acres: 10% of net lot area
    - Net lot area over 10 acres: 1 acre
        - For all other projects, exterior noise shall be measured at all exterior areas provided for group or private usable open space.
- **Interior Locations:** Per the Noise Element of the County's General Plan, operational noise levels would be significant if they exceeded 45 dB (CNEL) in interior spaces, except for the following cases:
    - Rooms which are usually occupied only a part of the day (schools, libraries, or similar facilities); the interior 1-hour average sound level due to noise outside should not exceed 50 dB.
    - Corridors, hallways, stairwell, closets, bathrooms, or any room with a volume less than 490 cubic feet.
- **Exterior, hourly:** Per the County Noise Ordinance Section 36.404, operational noise would be significant if it exceeded 50 dBA hourly Leq during the day (7:00 a.m. to 10:00 p.m.) or 45 dBA hourly Leq at night (10:00 p.m. to 7:00 a.m.). If the outdoor ambient sound level (without project contribution) is already higher than these limits, up to a 3 dBA increase above preexisting outdoor ambient sound level is permissible.
- **Ground-borne Vibration:** The OSM recommends a PPV safety level of 2.0 in/sec for residential structures.
- **Ground-borne Vibration:** Per County guidelines for significance (County of San Diego 2009a), ground-borne vibration from isolated events such as blasting would be significant if it exceeds 1 in/sec PPV at occupied facilities, including residences and buildings where people normally sleep (hotels, hospitals, residences, and other sleeping facilities) or institutional land uses with primarily daytime use (schools, churches, libraries and other institutions, and quiet offices).
- **Cumulative:** Cumulative noise impacts would be significant if more than a 1.5 dBA difference occurs when the "cumulative + existing" sound level (i.e., measured outdoor ambient plus acoustical contribution from any past, present, or foreseeable future projects in the project vicinity) is contrasted with the "cumulative + existing + project" sound level. A cumulative impact would occur when the combined sound level exceeds 60 dBA CNEL.

2.5.3.2 Project Blasting Details

A licensed blasting contractor who has been approved by the Sheriff to conduct blasting operations and who has been placed on the list of approved blasters would be responsible for performing and supervising all blasting activities, including the following:

- Pre-blast notifications and warning signaling
- Pre-blast inspection
- Drill pattern design

- Loading of explosives
- Blasting safety procedures
- Blasting site security
- Post-blast inspections and re-entry procedures
- Blast log and history

As outlined in the County Consolidated Fire Code, Section 96.1.5607.16 and project design feature **PDF-N-1** (Section 2.5.6.2, Project Design Features), blasting would only be allowed Monday through Saturday, between the hours of 7:00 a.m. and 6:00 p.m. or half an hour before sunset, whichever occurs first. Blasting would occur at 2- to 3-day intervals, with no more than one blast per day. No explosives would be stored on-site.

The blasting contractor would inspect all drill holes and maintain a drill log. Each drill log would be reviewed prior to loading any explosive or detonation device into any hole. Explosives used for blasting usually consist of a primer, secondary explosive, and an initiator. The blasting contractor would use ammonium nitrate mixed with fuel oil (ANFO) as the primary blasting agent. Non-electric delay blasting caps would be used to initiate the blasting agent. Delays are used to allow sufficient rock movement to create a free face to which subsequent delays can move and still provide the interaction between periods to increase rock breakage from the collision of the moving rock.

Pattern blasting is a common technique used in production blasting. This method is used when rock materials occur over a wide area. As implied by the name, blasting holes are drilled to follow a pre-designed pattern. The depth and spacing of holes are controlled to provide the maximum fracture with the minimum amount of ground vibration. Blasting activities would typically involve drilling multiple 2-inch-diameter holes into a boulder or bedrock to a depth of approximately 40 inches. Charges, typically weighing between 2.5 and 5 pounds each, would then be inserted into each drilled hole and detonated sequentially. Depth of the drill holes in these patterns are specific to each application as determined by the blasting contractor.

Using California Department of Transportation guidance, blasting vibration would be less than 1 in/sec PPV at distances beyond 15 feet from a blast (see Appendix J.1). All residences and the school are over 15 feet from potential blasts; thus, all blasts would result in vibration levels less than 1 in/sec PPV.

Ground vibrations, noise level, and air over-pressure would be monitored during each blast for compliance with the limits outlined in 30 CFR 816.67(b)(1)(i) and 816.67(d)(2)(i). Following each blast, seismographs would be checked to ensure that the blasting has not exceeded applicable noise and vibration criteria at the residential structures within 600 feet of the blast activity. In compliance with 30 CFR 816.7 (d)(2)(ii), the blast log would include a seismographic record of each blast. If residents request, homes within 600 feet of the blasting operations will be inspected for damage.

Since all residences and the school are located more than 15 feet from potential blasts, and blasting would use charges up to 5 pounds in weight, the resulting vibration levels would be less than 1 in/sec PPV at these distances. Therefore, vibrations are not expected to exceed the thresholds.

2.5.3.3 Noise Sensitive Land Uses Affected by Airborne Noise

Guidelines for the Determination of Significance

The project would have a significant noise impact if it would result in the exposure of any on- or off-site, existing or reasonably foreseeable future NSLUs to exterior or interior noise, in excess of the following (County of San Diego 2011b):

- **Exterior Locations:** 60 dB (CNEL) or an increase of 10 dB (CNEL) over preexisting noise. In the case of single-family residential detached NSLUs, exterior noise shall be measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum area:
    - Net lot area up to 4,000 square feet: 400 square feet
    - Net lot area 4,000 square feet to 10 acres: 10% of net lot area
    - Net lot area over 10 acres: 1 acre
        - For all other projects, exterior noise shall be measured at all exterior areas provided for group or private usable open space.
- **Interior Locations:** 45 dB (CNEL) except for the following cases:
    - Rooms which are usually occupied only a part of the day (schools, libraries, or similar facilities); the interior 1-hour average sound level due to noise outside should not exceed 50 dB.
    - Corridors, hallways, stairwell, closets, bathrooms, or any room with a volume less than 490 cubic feet.

Analysis

The nearest NSLUs near the site include the single-family residences to the north, east, and west, and Clover Flat Elementary School approximately 0.78 mile to the north. As shown in Table 2.5-2, the measured sound levels in the project area during the noise measurement survey ranged from approximately 30 dBA Leq to 43 dBA Leq. The noise level at the property line for the nearest residential structure would be approximately 32 dBA Leq (see Appendix J.1. All other residences would have substantially lower noise exposure. Additionally, the project is not located in the vicinity of an active airstrip or one that may become active, or within an airport land use plan or within 2 miles of a public airport or public use airport. The project would increase the noise level at nearby NSLUs by up to 5 dBA CNEL, to a level below 60 dBA CNEL (see Appendix J.1). Therefore, the exterior and interior noise level due to operation of the project within these nearest NSLUs would be compliant with the threshold and impacts would be **less than significant**.

2.5.3.4 Project-Generated Airborne Noise, Construction, and Decommissioning

Guidelines for the Determination of Significance

A significant impact would occur if noise generated by construction activities related to the project will exceed the standards listed in the County Noise Ordinance Section 36.409, Sound Level Limitations on Construction Equipment, and Section 36.410, Sound Level Limitations on Impulsive Noise.

The County Noise Ordinance Section 36.409 states:

> Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 dB for an eight-hour period, between 7 a.m. and 7 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

The County Noise Ordinance Section 36.410 (a) states:

> Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25% of the minutes in the measurement period. The maximum sound level depends on the use being made of the occupied property.

Section 36.410(a) also specifies the following maximum sound levels:

- Residential, village zoning, or civic use – 82 dBA
- Agricultural, commercial, or industrial use – 85 dBA

Section 36.410(c) states:

> The minimum measurement period for any measurements conducted for impulse noise determination shall be one hour. During the measurement period, a measurement shall be conducted every minute from a fixed location on an occupied property. The measurements shall measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise, exceeds the maximum sound level for any portion of any minute it will be deemed that the maximum sound level was exceeded during that minute.

Analysis

The construction (and decommissioning) of the project would consist of several phases, including site preparation, development of staging areas and site access driveways, solar array assembly and installation, and construction of electrical transmission facilities. The highest construction noise levels would be produced by construction traffic, foundation placement, grading, road construction, and blasting. Noise modeling and arithmetic calculations were used to calculate estimated noise levels from construction noise sources and construction traffic noise levels as well as estimated blasting noise levels (Tables 2.5-7 through 2.5-9).

Standard construction equipment would be used during construction, including earth-moving equipment (e.g., bulldozers, excavators, backhoes) and road-building equipment (e.g., compactors, scrapers, graders). Construction equipment would include air compressors, all-terrain passenger vehicles, backhoes, cranes, a drill rig, flatbed trucks, a front-end loader, pick-up trucks, a pile driver, a trencher, and water trucks (see Table 2.5-7). Construction activity and delivery of construction materials and equipment would be limited to the County's allowable hours of operation (Monday through Saturday from 7:00 a.m. to 7:00 p.m.).

Table 2.5-7. Project Construction Equipment Noise Source Levels

Noise Source	Noise Level	Number Allowed
Bulldozer	86 dBA at 10 meters	2
Excavator	80 dBA at 10 meters	2
Backhoe	69 dBA at 10 meters	2
Compactor	80 dBA at 10 meters	2
Scraper	82 dBA at 10 meters	2
Grader	86 dBA Lmax at 10 meters	2
Air compressor	75 dBA at 10 meters	2
Crane	71 dBA at 10 meters	2
Drill rig	82 dBA at 10 meters	1
Loader	79 dBA at 10 meters	1
Pile driver	75 dBA at 10 meters	4
Trencher	78 dBA at 10 meters	1
Water truck	81 dBA at 10 meters	2

Source: Department for Environment, Food, and Rural Affairs (2005)

Construction Traffic

The closest residences to the project construction vehicle route are along Jewel Valley Road, which has a grade of approximately 7% to the north:

- Approximately 2,000 feet south of Old Highway 80, roughly 90 feet east of the centerline
- Approximately 5,000 feet south of Old Highway 80, roughly 70 feet west of the centerline

During Phase I of construction, the project would generate 90 light-duty worker trucks, 164 heavy-duty material trucks, and four water trucks on Jewel Valley Road in each direction per day. During Phase II, the project would generate 225 worker trucks, 466 material trucks, and eight water trucks on Jewel Valley Road in each direction per day. Although truck trips would likely be dispersed through the day, for a conservative, worst-case noise scenario it was assumed that each truck would enter and exit the work area during the same 1-hour period, at a speed of 30 mph. The resulting noise levels at the nearest residences to the project construction vehicle route are detailed in Table 2.5-8.

Table 2.5-8. Project Construction Traffic Noise Levels (dBA)

Phase	Receptor	Morning		Afternoon	
		1-Hour Average	8-Hour Average	1-Hour Average	8-Hour Average
Phase I	East residence	63.9	55.9	69.6	59.6
	West residence	66.1	58.1	69.5	59.5
Phase II	East residence	68.4	60.4	74.1	66.1
	West residence	70.6	62.6	74.0	66.0

Source: dBF Associates (2025) (see Appendix J.2)

The project would result in construction traffic noise levels up to approximately 66 dBA Leq (8-hour average). Therefore, construction traffic noise would be below the allowable level of 75 dBA (8-hour average) at the boundary line of the nearest residences along Jewel Valley Road. Construction traffic would be limited to the hours between 7:00 a.m. and 6:00 p.m. Therefore, the project would comply with County Noise Ordinance Section 36.409, and impacts related to construction traffic noise would be **less than significant**.

Grading

For sound calculations, it is assumed that grading within any given area would be accomplished with one bulldozer, one excavator, and one backhoe. It was assumed that the equipment would operate continuously within a rectangular 5-acre area. No correction was applied for downtime associated with equipment maintenance, worker breaks, or similar situations.

Grading of the project site would occur directly up to the property line. Over the course of a full day of construction in which the equipment continuously moves throughout the work area, the average property line noise level would be approximately 74 dBA Leq (8 hours). Therefore, as construction grading for the project would not exceed the 8-hour average sound level of 75 dBA at the boundary line of the property, noise impacts related to construction would be **less than significant**.

Foundation Placement

The photovoltaic (PV) panels would be placed in rows and supported by driven pile foundations. Each typical 300-foot-long row would have 13 foundations. Rows would be placed at an 18.5-foot spacing. Therefore, there would be one foundation per approximately 427 square feet. As a large majority of the project site would have PV panels, the project would require approximately 59,678 foundations. Over a 12-month construction period with 25 workdays per month, each day approximately 199 foundations would be set within a roughly 1.95-acre area.

Each driven pile foundation would be set using a pile driver. It was assumed that there would be up to four pile drivers simultaneously operating, and each could drive five piles per hour. A mini-piling rig produces a sound level of 75 dBA at 10 meters (about 33 feet) (see Appendix J.1). No downtime for maintenance or breaks was considered in the calculations.

The closest foundations to a project property line would be set approximately 30 feet away. Over the course of a full day of construction in which 200 foundations are set, assuming a square work area, the furthest piles would be driven roughly 315 feet from the same property line; at that distance, the sound level would be approximately 55 dBA. At the closest property line to pile driving, considering the movement of equipment throughout the work area, the average property line noise level would be approximately 67 dBA Leq (8 hours). Therefore, as foundation placement for the project would not exceed the 8-hour average sound level of 75 dBA at the boundary line of the property, noise impacts related to construction would be **less than significant**.

Road Construction

For sound calculations, it is assumed that road construction within any given area would be accomplished with one compactor, one scraper, and one grader. It was assumed that the equipment would operate continuously within a linear 2-acre area. No correction was applied for downtime associated with equipment maintenance, worker breaks, or similar situations.

The closest road construction area to a project property line would occur adjacent to the property line. The property line noise level would be approximately 70 dBA Leq (8 hours; Table 2.5-9). Therefore, as road

construction for the project would not exceed the 8-hour average sound level of 75 dBA at the boundary line of the property, noise impacts related to pile driving would be **less than significant**.

Decommissioning Activities

Upon conclusion of the project's expected 35-year operational lifespan, the solar facility would be dismantled and its materials removed from the project site. For purposes of this noise assessment, sequential activities associated with the decommissioning activities would be considered similar to construction phases. Examples include the following activities:

- Removal of structures and components would involve equipment and activities akin to those that would install the PV system during construction.
- Upon removal and/or recycling of structures and components, restoring the site surface and hydroseeding would be comparable to the site preparation phase during construction.
- Subsurface post elements for the PV system support structure would likely be extracted or otherwise removed by vibratory equipment similar in characteristics and noise generation to the anticipated pile-driving–type post-installation methods and means.

In sum, there are no anticipated decommissioning activities that would be louder than their construction-related counterparts. Therefore, the analysis of construction noise and vibration can conservatively be used to assess noise and vibration from comparable decommissioning activities and equipment. Noise impacts from decommissioning activities would be **less than significant**.

Blasting

Blasting activities may be required to facilitate the construction of solar array foundations and the gen-tie line. Removal of soil and overburden—loose, poorly consolidated materials such as soil, sand, and rock fragments—requires the use of tractors and excavators. Hard rock formations will require drilling and blasting to fracture and to loosen the rock. Blasting was assumed to generate a noise level of up to 94 dBA Lmax at 50 feet (see Appendix J.1). The closest property line is approximately 30 feet from a potential blast location. At this location, the blast noise level would be up to approximately 98 dBA Lmax (Table 2.5-9). Under County Noise Ordinance Section 36.410, impulsive noises may not exceed maximum sound levels (Table 2.5-5) for more than 25% of the minutes (15 minutes) in any 1-hour measurement period. The project would blast no more than once per day. As such, the project would not exceed 82 dBA Lmax for more than 25% of the time in any 1-hour period.

Blasting conducted during construction would be conducted per County Consolidated Fire Code Section 96.1.5607.16 and project design feature **PDF-N-1**, which describes the allowable hours of operation, requirements for public notification, and requirements for inspection and monitoring.

As previously discussed, the project would not generate either operational or construction noise in excess of the standards in County Noise Ordinance Sections 36.404, 36.408, and 36.409. Therefore, impacts related to impulsive noise would be **less than significant**.

Table 2.5-9. Project Noise Levels at Property Line Resulting from Project Construction

Construction Activity	Primary Noise Source	Noise Level	Threshold of Significance	Threshold Exceeded?
Foundation placement	Pile drivers	67 dBA Leq (8 hours)	75 dBA (8 hours)	No
Grading	Bulldozer, excavator, backhoe	74 dBA Leq (8 hours)	75 dBA (8 hours)	No
Road construction	Compactor, scraper, grader	70 dBA Leq (8 hours)	75 dBA (8 hours)	No
Blasting	Blasting using charges up to 5 pounds in weight	98 dBA Lmax (once per day)	82 dBA for more than 25% of 1-hour measurement	No

2.5.3.5 Project-Generated Airborne Noise, Operation

Guidelines for the Determination of Significance

Noise attributed to normal operation of the project would have a significant noise impact if it exceeded daytime (i.e., between 7:00 a.m. and 10:00 p.m.) and nighttime (i.e., between 10:00 p.m. and 7:00 a.m.) hourly Leq thresholds that depend on the zoning district of the receiving property line and/or the property producing the noise per County Noise Ordinance Section 36.404(a). As the project is located in an area zoned S92, the maximum allowable sound levels would be 50 dBA from 7:00 a.m. to 10 p.m. and 45 dBA from 10:00 p.m. to 7:00 a.m.

Analysis

Noise from operation of the proposed project would result primarily from stationary equipment, the transformers, and battery storage containers, including heating, ventilation, and air-conditioning (HVAC) units. There would be 33 inverter/transformer platforms spaced evenly throughout the PV array areas. The collector substation at the northeast corner of the PV module area would include five transformers. National Electrical Manufacturers Association publication ST 20-2014 (National Electrical Manufacturers Association 2014) governs maximum allowable noise levels from transformers; a transformer may not produce more than 67 dB at 1 foot.

There would be 378 battery storage containers in two areas near the northeast corner of the PV array area. It was assumed that each container would be fitted with one HVAC unit that produces a sound pressure level of 63 dBA or less at 5 feet. This assumption is based on previous experience with projects involving cooling for similar-sized electrical equipment boxes in similar environments. The noise source height is assumed to be approximately 3 feet above ground.

Based on the modeling results, noise levels at the project boundary would range up to 37 dBA Leq at the property line corner closest to the battery energy storage system (BESS) area (southwest corner of Assessor's Parcel Number 612-090-570) (see Appendix J.1). Therefore, noise levels would not exceed 50 dBA from 7:00 a.m. to 10 p.m. and 45 dBA from 10:00 p.m. to 7:00 a.m., and the project would comply with County Noise Ordinance Section 36.404. Therefore, the project would not generate noise in excess of levels specified by Section 36.404, and noise impacts from on-site operations would be **less than significant**.

2.5.3.6 Ground-borne Vibration Impacts

Guidelines for the Determination of Significance

The project would have a significant noise impact if it would expose NSLUs and other vibration-sensitive uses to existing and future ground-borne vibration, including vibration sources caused by new development impacting existing or foreseeable future NSLUs. The ground-borne vibration and noise standards in *County of San Diego, Guidelines for Determining Significance – Noise* (County of San Diego 2009a) identify the following three land use categories with increasing sensitivity to ground-borne vibration and noise impacts:

- Category 1: Buildings where low ambient vibration is essential for interior operations (research and manufacturing facilities with special vibration constraints)
- Category 2: Residences and buildings where people normally sleep (hotels, hospitals, residences, and other sleeping facilities)
- Category 3: Institutional land uses with primarily daytime use (schools, churches, libraries, other institutions, and quiet offices)

Therefore, the project would result in a significant impact if the PPV for frequent events (more than 70 vibration events per day) would exceed 0.0018 in/sec RMS for Category 1 land uses, 0.004 in/sec RMS for Category 2, and 0.0056 in/sec RMS for Category 3. Occasional or infrequent events (fewer than 70 vibration events per day) would be considered a significant impact if they would exceed 0.0018 in/sec RMS for Category 1 land uses, 0.010 in/sec RMS for Category 2, and 0.014 in/sec RMS for Category 3.

For Categories 2 and 3 with occupied facilities, isolated events such as blasting are significant when the PPV exceeds 1 in/sec. Non-transportation vibration sources such as impact pile drivers or hydraulic breakers are significant when their PPV exceeds 0.1 in/sec.

Analysis

Construction

Depending on the type and method of use of equipment, construction activity can result in varying degrees of ground vibration. Ground vibrations are caused by the operation of construction equipment and diminish in strength with distance from the vibration source. Buildings founded on the soil in the vicinity of the construction site can experience these vibrations in a manner ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage at the highest levels. Ground vibrations from construction activities do not often reach the levels that can damage structures, but they can achieve the sensible range in buildings very close to the site.

Typical vibration-inducing construction equipment used during construction of the project would likely include bulldozers, pile drivers, graders, and miscellaneous trucks. A typical vibratory pile driver produces 0.17 in/sec PPV at 25 feet (see Appendix J.1). Pile driving would occur as close as 175 feet from the closest residence (1909 Jewel Valley Road) and would generate vibration levels of 0.02 in/sec PPV or below at both the closest residence and the school. The piece of construction equipment expected to generate the highest level of vibration is a large bulldozer, which produces a vibration level of 87 vibration decibels (VdB) (see Appendix J.1). The bulldozer could operate as close as 125 feet from the closest residence (1909 Jewel Valley Road) and approximately 4,450 feet from the school. At 125 feet, the vibration level would be approximately 66 VdB, which is equal to approximately 0.002 in/sec RMS. Since, the strength of earth-bound vibrations attenuate over distance, the level of vibration at 4,450 feet would be less than the level at 125 feet, which is 0.002 in/sec RMS. Therefore, vibration levels from construction equipment would not exceed 0.01 in/sec RMS at all residences or 0.014 in/sec RMS at the school.

The primary source of vibration from the project would be from blasting, which would be conducted in compliance with the 2023 County of San Diego Consolidated Fire Code and San Diego County Sheriff's Office regulations for licensed blasting contractors. Ground vibrations and airblast over-pressure are part of the output of the rock blasting operations. No two blasts on-site would be identical. Blast designs would be modified to reflect the unique conditions of each locality. Factors that affect noise and vibration transmission include explosive composition, charge weight and delays, distance, depth of burial of the charge, and geologic formations. Air over-pressure transmission is also affected by intensity, terrain features (trees, foliage, and other screening) orientation of the blast face, atmospheric conditions, temperature gradients, and wind direction and velocity. The blasting contractor would ensure compliance with County Consolidated Fire Code Section 96.1.5607.16 and 30 CFR 816.67(b)(1)(i) and 816.67(d)(2)(i) which limit sound and ground vibrations at sensitive receptors outside the permit area (Table 2.5-3 and Table 2.5-4). Therefore, impacts related to construction ground-borne vibration and noise would be **less than significant**.

Operational Activities

No operational components of the project include significant ground-borne noise or vibration sources, and no significant vibration sources currently exist, or are planned, in the project vicinity. Therefore, there would be **no impact** related to operational ground-borne vibration and noise.

2.5.4 Cumulative Impact Analysis

The cumulative impact analysis for noise was performed using the projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting. Noise levels tend to diminish quickly with distance from a source; therefore, the geographic scope for the analysis of cumulative impacts related to noise would be limited to projects within approximately 0.25 mile of project components and access routes. This area is defined as the geographic extent of the cumulative impact area because noise impacts would generally be localized, mainly within approximately 500 feet from any noise source; however, it is possible that noise from different sources within 0.25 mile of each other could combine to create a significant impact to receptors at any point between the projects.

2.5.4.1 Cumulative, Noise Sensitive Land Uses Affected by Airborne Noise

The nearest sensitive receptors to the project include residences approximately 150 feet west, in the vicinity of ML2 in Figure 2.5-1. The primary noise source in the project vicinity is distant vehicular traffic on I-8 and vehicular traffic on SR 94 (Old Highway 80). There are no additional NSLUs that are reasonably foreseeable in the project area. As previously discussed, the project would not individually increase the exterior and interior noise level at any NSLU by more than 10 dBA CNEL or exceed 45 dBA CNEL.

Multiple projects are proposed or operating in the project area that would affect NSLUs. However, any potential cumulative noise impacts would be reduced through compliance with local laws and regulations. Furthermore, cumulative renewable energy projects and other development that are subject to the environmental permitting process would have a detailed analysis of noise and land use conflicts as part of the project-level environmental review. The permitting process normally requires each project to comply with local standards and to avoid noise-related land use conflicts. This means that all projects, even if unrelated to the proposed project, would need to comply with local community noise standards, such as the County Noise Ordinance. Additional mitigation may be applied to the cumulative projects through environmental permitting by lead agencies. Therefore, the impacts of the project, in combination with other cumulative projects, **would not result in a cumulatively considerable impact** regarding adverse noise impacts to NSLUs.

2.5.4.2 Cumulative, Project-Generated Airborne Noise, Construction

The average hourly noise level for construction traffic would be approximately 70.6 dBA and 74.1 dBA at the closest residential property boundaries. Construction noise levels would not exceed the 8-hour average sound level of 75 dBA at the boundary line of the property. At distances greater than 0.25-mile, construction noise would be briefly audible and steady construction noise from the project would generally dissipate into quiet background noise levels. Accordingly, the impacts of the project, in combination with other cumulative projects, **would not be cumulatively considerable** with regard to construction noise.

2.5.4.3 Cumulative, Project-Generated Airborne Noise, Operation

Operational noise, primarily due to the transformers and battery storage containers, including HVAC units, would not exceed the County's Noise Ordinance standards at the project property lines. The only sources of noise associated with the project's operations that could combine with the cumulative projects to result in a potential cumulative impact near sensitive receptors would be employee vehicles accessing the sites. Given the limited number of employees during operations of the project and the nearby cumulative projects, the project **would not result in a cumulatively considerable impact** with regard to operational noise**.**

2.5.4.4 Cumulative, Ground-borne Vibration Impacts

The primary source of vibration from the project would be from blasting, which would be conducted in compliance with the 2023 County of San Diego Consolidated Fire Code and San Diego County Sheriff's Office regulations for licensed blasting contractors. Cumulative effects due to ground-borne vibration would occur only if there were sources of vibration within 200 feet of the boundaries between the project and cumulative project sites, which would also be required to comply with these regulations. As such, the potential overlap of construction-related vibration from cumulative projects is unlikely to create a significant impact on residences near the proposed project. Therefore, the impacts of the project, in combination with other cumulative projects, **would not be cumulatively considerable** with regard to ground-borne vibration.

2.5.5 Significance of Impacts Prior to Mitigation

2.5.5.1 Noise-Sensitive Land Uses Affected by Airborne Noise

As described in Section 2.5.3.1, the operational noise levels from the stationary equipment of the project would be compliant with County thresholds of exterior and interior noise levels at the nearest NSLUs. However, if the stationary equipment was to change and/or the layout is different from what was evaluated, operational noise levels have the potential to exceed the County's Noise Ordinance threshold and impacts may be **potentially significant (Impact N-1)**.

2.5.5.2 Project-Generated Airborne Noise, Construction and Decommissioning

The phases of construction and decommissioning would comply with County Code Section 36.409 construction noise thresholds of 75 dB Leq for an 8-hour metric between 7:00 a.m. to 7:00 p.m., and the impulse noise limit of 82 dBA Lmax, pursuant to the County Noise Ordinance Sections 36.408 through 36.410. However, should project construction phases or other activities overlap in schedule or otherwise occur concurrently, the project does have the potential to exceed these thresholds and impacts may be **potentially significant** (**Impact N-2**).

2.5.5.3 Project-Generated Airborne Noise, Operation

Operational noise not would exceed the County's Noise Ordinance standards at the project property lines; therefore, the project would result in a **less than significant** impact.

2.5.5.4 Ground-borne Vibration Impacts

As described in Section 2.5.3.4, based on the anticipated construction equipment and distance from the equipment to the adjacent NSLUs, construction activities would result in vibration levels below County standards. Hence, County-compliant vibration levels from operation of the construction equipment would be a **less than significant** impact.

No operational components of the project include significant ground-borne noise or vibration sources, and no significant vibrations sources currently exist, or are planned, in the project vicinity. Thus, impacts of ground-borne noise or vibration attributed to the operation of the project would be **less than significant**.

2.5.6 Mitigation Measures and Project Design Features

2.5.6.1 Mitigation Measures

Mitigation measures **M-N-1**, **M-N-2**, and **M-BI-10** would mitigate potential impacts under **Impacts N-1** and **N-2** as follows.

M-N-1 **Stationary Equipment**. The project shall comply with the County of San Diego's Noise Ordinance Section 36.404 based upon the current proposed layout and the anticipated major noise-producing operating stationary equipment (equipment) deployed for the project. The equipment modeled in the noise analysis report prepared for the EIR (Appendix J.1 of the EIR) was selected as representative technology at the time the report was prepared. The Applicant may propose to use different equipment than what was used to perform the noise modeling in the noise analysis report or propose a change in the equipment layout. If different equipment is selected and/or the layout of equipment is changed subsequent to project approval, the Applicant will be required to submit a revised Noise Analysis, and a revised site plan if needed, as follows:

1. The Project Applicant shall retain a County-approved CEQA Noise Consultant to prepare a new predictive operations noise analysis in accordance with the *County of San Diego, Report Format and Content Requirements – Noise* (County of San Diego 2009b). Any alterations or modifications proposed and approved pursuant to this procedure shall be included in the proposed project design plans. Any proposed equipment selections, equipment duty cycles, project layout alterations, and/or the addition, modification, reduction of the preceding equipment noise limits and measures may be approved, if they are demonstrated to comply at the property line with applicable outdoor hourly Leq noise limits per Section 36.404(a) of the County Noise Ordinance.
2. The above-identified measures shall take place prior to approval of any building plans for the project. Any alterations or modifications proposed and approved pursuant to this procedure shall be included in the proposed project design plans.

M-N-2 **Construction Noise Management Plan**. Prior to construction and decommissioning, the Applicant shall prepare a Construction Noise Management Plan (CNMP) which establishes construction activity restrictions in order to reliably achieve compliance with the County's

8-hour 75 dBA Leq standard at the project property lines adjoining existing occupied properties, defined by Section 36.402.(m) as "property on which there is a building for which a certificate of occupancy has been issued". The CNMP shall demonstrate compliance with the County Noise Ordinance for avoiding potential impacts caused by operating construction equipment and vehicle noise sufficiently proximate to these property lines of occupied properties. The CNMP shall be submitted to County Planning and Development Services 30 days prior to any land disturbance. Components of the CNMP shall include the following:

1. Affected property owners shall be notified in writing 2 weeks prior to construction activity within 500 feet of their property boundaries.
2. In order to comply with the County Noise Ordinance (Section 36.409, Construction Equipment), the acoustical usage factors (AUF) of heavy construction equipment used on the project site shall be comparable to those listed in Table 1 of the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) User Guide (FHWA 2017). Lmax values at 50 feet shall be the lower of either the "Spec. 721.560" or "Actual Measured" values in Table 1 of the RCNM User Guide, and duration of heavy equipment operating for construction shall comply with the following limitations by activity, for the specified distance between the indicated heavy equipment operations and a position along the property line of an occupied parcel:
    a. Perimeter fence installation – up to two flatbed trucks and a front-end loader:
        i. Within 15 feet – not permitted
        ii. 15 to 25 feet – no more than 20 minutes per 8-hour period
        iii. 25 to 50 feet – no more than 1 hour per 8-hour period
        iv. 50 to 75 feet – no more than 4 hours per 8-hour period
        v. Beyond 75 feet – no restriction
    b. Site preparation (clearing) – water truck and tractor (mowing attachment):
        i. Within 20 feet – not permitted
        ii. 20 to 25 feet – no more than 20 minutes per 8-hour period
        iii. 25 to 50 feet – no more than 30 minutes per 8-hour period
        iv. 50 to 75 feet – no more than 2 hours per 8-hour period
        v. 75 to 100 feet – no more than 4 hours per 8-hour period
        vi. Beyond 100 feet – no restriction
    c. Site preparation (earth-moving) – bulldozer, water truck, and scraper:
        i. Within 25 feet – not permitted
        ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
        iii. 50 to 75 feet – no more than 1 hour per 8-hour period
        iv. 75 to 100 feet – no more than 3 hours per 8-hour period
        v. 100 to 125 feet – no more than 6 hours per 8-hour period
        vi. Beyond 125 feet – no restriction
    d. Site preparation (grading) – flatbed truck, grader, water truck, and sheepsfoot roller:
        i. Within 25 feet – not permitted

ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
iii. 50 to 75 feet – no more than 1 hour per 8-hour period
iv. 75 to 100 feet – no more than 3 hours per 8-hour period
v. 100 to 125 feet – no more than 6 hours per 8-hour period
vi. Beyond 125 feet – no restriction

e. Underground work (trenching) – excavator, sheepsfoot roller, water truck, 5-kilowatt (kW) generator, and Gradall (4 × 4 forklift):
i. Within 25 feet – not permitted
ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
iii. 50 to 75 feet – no more than 1.5 hours per 8-hour period
iv. 75 to 100 feet – no more than 3 hours per 8-hour period
v. Beyond 100 feet – no restriction

f. Underground work (back-filling) – Aussie padder, sheepsfoot roller, water truck, 5kW generator, and Gradall (4 × 4 forklift):
i. Within 25 feet – not permitted
ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
iii. 50 to 75 feet – no more than 1.5 hours per 8-hour period
iv. 75 to 100 feet – no more than 3 hours per 8-hour period
v. Beyond 100 feet – no restriction

g. System installation – Gradall (4 × 4 forklift), crane, all-terrain vehicle, vibratory pile driver (RGT Model RG21T or comparable), pick-up truck, and 5-kW generator:
i. Within 25 feet – not permitted
ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
iii. 50 to 75 feet – no more than 1.5 hours per 8-hour period
iv. 75 to 100 feet – no more than 4 hours per 8-hour period
v. Beyond 100 feet – no restriction

All construction equipment operations shall incorporate all recommended noise reducing measures such as, but not limited to, limiting construction equipment operations, installation of temporary noise barriers, and implementation of the recommendations within the CNMP to demonstrate compliance with the County Noise Ordinance, Sections 36.408 and 36.409.

Concurrent construction activities may occur so long as next closest construction activity to the same studied property line position is at least four times its "no restriction" distance away. By way of example, if earth moving was occurring near a fixed point on the potentially affected property line, the next closest set of earth-moving equipment performing like work, or perhaps an overlapping and comparable scheduled activity (e.g., grading), shall be permitted if no closer than 500 feet (equal to 4 × 125 feet) from the same receptor point.

3. If distance buffers or duration limits cannot be maintained, then the Applicant or its contractor will implement on-site temporary sound abatement measures, such as a field-erected noise barrier (e.g., sound blankets) of sufficient height and horizontal extent, or the placement of storage containers and other similarly solid

sound-occluding structures, to ensure construction activity noise at the project property line complies with County standards.

4. The CNMP will also include direction for the Applicant or its contractor(s) to implement the following:
    a. Trucks and other engine-powered equipment shall be equipped with noise reduction features, such as mufflers and engine shrouds, which are no less effective than those originally installed by the manufacturer;
    b. Trucks and other engine-powered equipment shall be operated in accordance with posted speed limits and limited engine idling requirements;
    c. Usage of truck engine exhaust compression braking systems shall be limited to emergencies;
    d. Back-up beepers for all construction equipment and vehicles shall be adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration (OSHA) and California OSHA's safety requirements are not violated;
    e. Vehicle horns shall be used only when necessary, as specified in the contractor's specifications; and
    f. Radios and other noise-generating "personal equipment" shall be prohibited.

M-BI-10 **Noise Reduction.** Construction- and decommissioning-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) adjacent to breeding/nesting areas shall incorporate noise-reduction measures (described below) or be curtailed during the breeding/nesting season of sensitive bird species.

1. Trucks and other engine-powered equipment shall be equipped with noise reduction features, such as mufflers and engine shrouds, which are no less effective than those originally installed by the manufacturer.
2. Trucks and other engine-powered equipment shall be operated in accordance with posted speed limits and limited engine idling requirements.
3. Usage of truck engine exhaust compression braking systems shall be limited to emergencies.
4. Back-up beepers for all construction equipment and vehicles shall be adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration's (OSHA's) and the California Division of Occupational Safety and Health's safety requirements are not violated. These settings shall be retained for the duration of construction activities.
5. Vehicle horns shall be used only when absolutely necessary, as specified in the contractor's specifications.
6. Radios and other noise-generating "personal equipment" shall be prohibited.

If construction-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) occur during the period of January 15 through August 31, a County-approved biologist shall conduct preconstruction surveys in suitable nesting habitat adjacent to the construction area to determine the location of any active nests in the area (see M-BI-5).

2.5.6.2 Project Design Features

The Applicant has identified and committed to including the following project design features as part of the project to alleviate adverse noise effects, to the extent feasible.

PDF-N-1 **Blasting Control Measures.** The blasting contractor will control blasting-induced vibration and noise per the requirements of County Consolidated Fire Code Section 96.1.5607.16. General control measures include the following:

1. Stemming will be of uniform size in order to ensure consistency between individual shots.
2. The weight of explosives used per delay will be determined by adherence to the Scaled Distance Equation.
3. Independent delays will be used for each blast hole to control vibration.
4. No blasting will take place when wind velocity equals or exceeds 15 miles per hour. A licensed blasting contractor will determine wind speed using a recording anemometer located a minimum of 10 feet above ground level near the on-site project office.
5. Ground vibrations, noise level, and air over-pressure will be monitored during each blast for compliance with the limits outlined in 30 CFR 816.67(b)(1)(i) and 816.67(d)(2)(i). Following each blast, seismographs will be checked to ensure that the blasting has not exceeded applicable noise and vibration criteria at the residential structures within 600 feet of the blast activity. In compliance with 30 CFR 816.7 (d)(2)(ii), the blast log will include a seismographic record of each blast. If residents request, homes within 600 feet of the blasting operations will be inspected for damage. All daily seismograph reports shall be maintained by the blaster for 3 years from the blasting.
6. The blaster shall retain an inspector to inspect all buildings and structures, including mobile homes, within 300 feet of the blast site before blasting operations, unless inspection is waived by the owner and/or occupant.
7. An inspector shall complete and sign pre-blast inspection reports identifying all findings and inspection waivers.
8. The blaster shall retain an inspector to conduct a post-blast-inspection of any building and structure for which a written complaint alleging blast damage has been received. A written report of the inspection shall be immediately filed with the Issuing Officer and provided to any person who made a complaint for damages.
9. All major blasting operations shall be monitored by an approved seismograph located at the nearest structure within 600 feet of the blasting operation.

PDF-N-2 **Blasting Plan.** Prior to and during construction activities, the applicant shall be required to prepare and implement a blast plan to reduce impacts associated with air blast over-pressure generated by project-related construction activities and to incorporate any required noise reducing measures to comply with County Noise Ordinance regulations.

All blast planning shall be done by a San Diego County Sheriff approved blaster, with the appropriate San Diego County Sheriff blasting permits, and all other applicable local, state, and federal permits, licenses, and bonding. The blasting contractor or owner shall conduct

all notifications, inspections, monitoring, major or minor blasting requirements planning, with seismograph reports as necessary.

Construction equipment associated with blasting (i.e., drilling, pre and post blasting work) shall comply with the County Noise Ordinance, Sections 36.408, 36.409, and 36.410. The blast plan shall include any necessary noise measures such as (but not limited to) temporary noise barriers and blankets, increased setbacks, limiting construction equipment operations, and any other methods specified within the blasting plan must be implemented to comply with County Noise Ordinance requirements.

2.5.7 Conclusion

The following discussion provides a summary of the conclusions reached in each of the above impact analyses and the level of impact that would occur after mitigation measures and project design features, if any, are implemented.

Noise-Sensitive Land Uses Affected by Airborne Noise

The operational noise levels from the stationary equipment of the project, which would potentially affect the permanent ambient noise levels, would not exceed the County's guidelines for determining significance (County of San Diego 2009a) as they would not increase ambient levels by more than 10 dBA CNEL or exceed 45 dBA CNEL at any NSLU. However, if the equipment were to change and/or the layout differs from what was analyzed in the noise analysis report (see Appendix J.1), operational noise levels have the potential to exceed the County Noise Ordinance threshold (Impact N-1). Mitigation measure **M-N-1** would ensure predicted stationary equipment operation noise levels would be compliant with the applicable County Noise Ordinance nighttime noise level standard at the project property lines and at the nearest NSLU per the County's guidelines for determining significance with respect to a CNEL standard.

Implementation of mitigation measure M-N-1 would ensure the project would comply with the County Noise Ordinance Section 36.404, and impacts from noise caused by stationary equipment (Impact N-1) would be reduced to **less than significant**.

Project-Generated Airborne Noise, Construction and Decommissioning

If project construction phases or other activities overlap in schedule or otherwise occur concurrently, the project does have the potential to exceed these thresholds and impacts may be **potentially significant** (Impact N-2). Mitigation measure **M-N-2** would ensure construction and decommissioning noise emission is compliant with County standards. With implementation of mitigation measure M-N-2**,** impacts from construction-related noise (Impact N-2) would be reduced to **less than significant**. Additionally, should project's construction phases or other activities overlap in schedule or otherwise occur concurrently, the CNMP as outlined in M-N-2 would include specified distance restrictions that when implemented would help ensure such concurrence does not cause logarithmically combined noise levels to exceed the County's standard per Section 36.409 of the County Noise Ordinance.

Project-Generated Airborne Noise, Operation

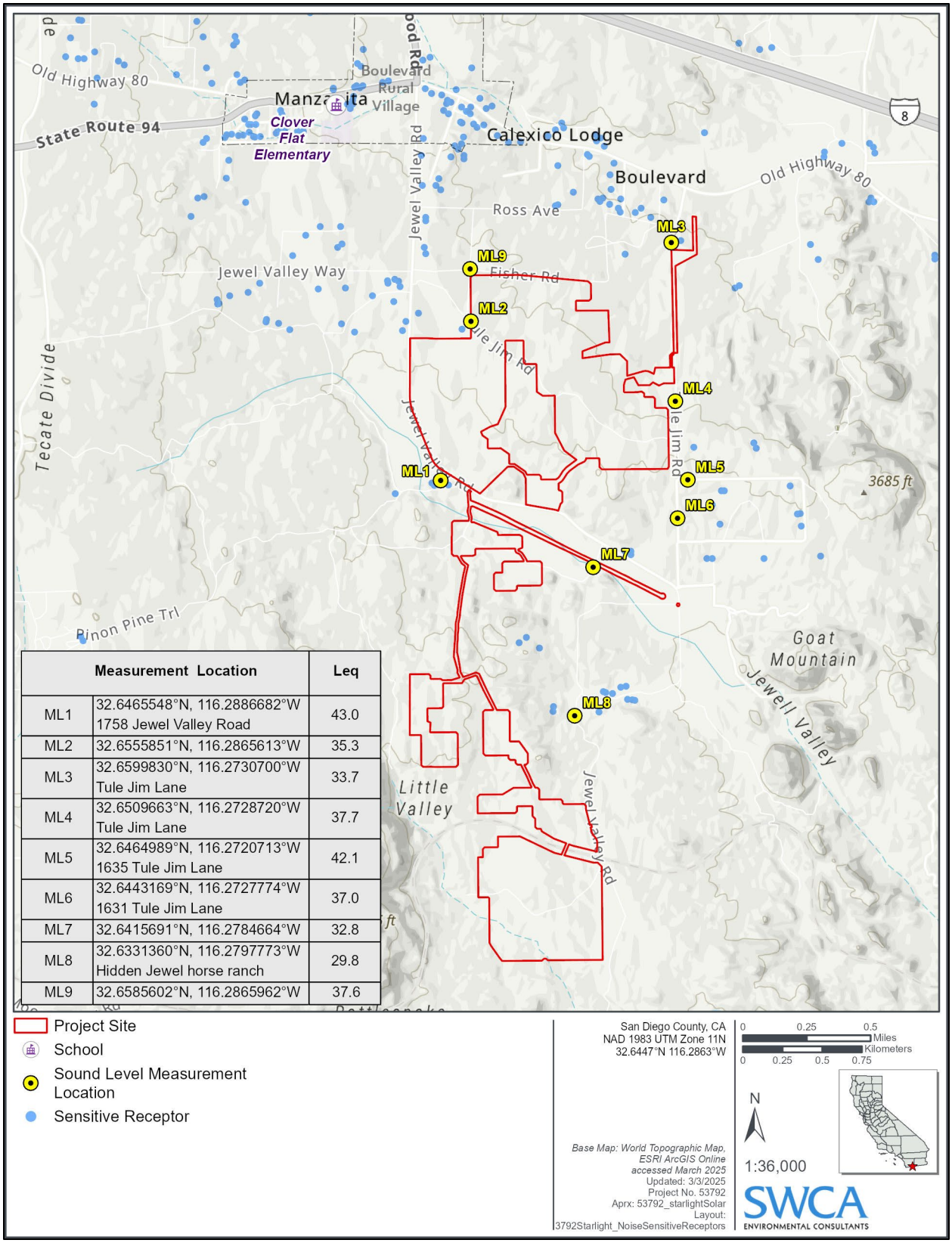
Operational noise, primarily due to the transformers and battery storage containers, including HVAC units, would not exceed the County Noise Ordinance standards at the project property lines; therefore, the project would result in a **less than significant** impact from operational noise.

Ground-borne Vibration Impacts

The primary source of vibration from the project would be from blasting. Blasting would occur no more than once per day. Ground vibrations, noise level, and air over-pressure would be monitored during each blast for compliance with the limits established by 30 CFR 816.67(b)(1)(i) and 816.67(d)(2)(i). Following each blast, seismographs shall be checked to ensure that the blasting has not exceeded applicable noise and vibration criteria at the residential structures within 600 feet of the blast activity. The blasting contractor will ensure compliance with 30 CFR 816.67(b)(1)(i) and 816.67(d)(2)(i). Therefore, construction of the project would result in **less than significant** impacts due to blasting.

Cumulatively Considerable Impacts

Noise levels tend to diminish quickly with distance from a source; therefore, the geographic scope for the analysis of cumulative impacts related to noise would be limited to projects within approximately 0.25 mile of project components and access routes. This area is defined as the geographic extent of the cumulative impact area because noise impacts would generally be localized, mainly within approximately 500 feet from any noise source; however, it is possible that noise from different sources within 0.25 mile of each other could combine to create a significant impact to receptors at any point between the projects. At distances greater than 0.25 mile, construction noise would be briefly audible and steady construction noise from the project would generally dissipate into quiet background noise levels. The temporal scope for cumulative impacts associated with noise would include the construction and operation phases of the project. The baseline for assessing cumulative noise impacts includes the noise sources associated with other projects within 0.25 mile of the project that could be constructed and/or operated at the same time as the project. Based on the foregoing criteria, the only cumulative project included in this cumulative analysis is the Tule Wind Groundwater Permitting Project which includes a generation-tie line to the Boulevard substation, although the majority of the project is located further northeast. The Tule Wind Groundwater Permitting Project is operational, and its current phase includes groundwater monitoring. As such, it has no significant noise impacts; therefore, the project's contribution **would not be cumulatively considerable**.



Measurement Location		Leq
ML1	32.6465548°N, 116.2886682°W 1758 Jewel Valley Road	43.0
ML2	32.6555851°N, 116.2865613°W	35.3
ML3	32.6599830°N, 116.2730700°W Tule Jim Lane	33.7
ML4	32.6509663°N, 116.2728720°W Tule Jim Lane	37.7
ML5	32.6464989°N, 116.2720713°W 1635 Tule Jim Lane	42.1
ML6	32.6443169°N, 116.2727774°W 1631 Tule Jim Lane	37.0
ML7	32.6415691°N, 116.2784664°W	32.8
ML8	32.6331360°N, 116.2797773°W Hidden Jewel horse ranch	29.8
ML9	32.6585602°N, 116.2865962°W	37.6

Figure 2.5-1. Sound Level Measurement Locations

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2.6 Tribal Cultural Resources

This section of the Environmental Impact Report (EIR) discusses potential impacts to tribal cultural resources (TCRs) resulting from the implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical study prepared for the proposed project, which was prepared in accordance with the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (County of San Diego 2007a) and the *County of San Diego Format and Content Requirements, Cultural Resources: Archaeological and Historic Resources* (County of San Diego 2007b):

- *Cultural Resources Survey and Inventory for the Starlight Solar Project, San Diego County, California* (SWCA Environmental Consultants [SWCA] 2024) (Appendix E.1 of this EIR)

The analysis is also based on Native American consultation conducted by the County of San Diego (County) pursuant to provisions in the California Environmental Quality Act (CEQA) pertaining to Assembly Bill (AB) 52. Comments received in response to the Notice of Preparation (NOP) include concerns regarding proper Native American consultation and proper monitoring for TCRs, tribal artifacts, cremation sites and human remains, and the potential disturbance of these resources. These concerns are addressed in this section of the EIR where applicable and within the cultural resources survey and inventory report (see Appendix E.1). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

2.6.1 Existing Conditions

Information in this section is taken from the cultural resources survey and inventory report (SWCA 2024; see Appendix E.1), unless otherwise noted.

2.6.1.1 Natural Setting

The project area is in the Peninsular Ranges geomorphic province, which extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California. Northwest-trending mountain ranges and valleys distinguish the Peninsular Ranges by following faults branching from the San Andreas Fault. The Peninsular Ranges are the remnants of large igneous bodies emplaced approximately 180 million years ago. Rugged mountainous terrain on the east of the province is composed mostly of Mesozoic igneous and metamorphic rocks. The subject site is located within the topographically dynamic eastern portion of the Peninsular Ranges geomorphic province. Specifically, the site is in an area underlain by early and late Cretaceous tonalite of the La Posta Formation.

The terrain in the area is characterized by chaparral-covered hills, with large granitic boulder and bedrock outcroppings, interrupted by small valleys, dry washes, or arroyos. The elevation of the area ranges between approximately 3,300 to 3,600 feet above mean sea level, with the highest elevation located toward the northwest, and the lowest to the southeast. Several small peaks are present in the area, which include Rattlesnake Mountain and Boundary Peak to the south and Old George, Goat, and Music Mountains to the east. Boundary Peak, located south near the international border, adjacent to the Jewel Valley, rises a little over 3,900 feet.

Nearby water sources include Boundary Creek and Walker Creek, as well as several small springs. Climatically, the area is characterized as arid, with a mean annual rainfall averaging about 15 inches. Due to the scarcity of water in the region, most streams are ephemeral and permanent surface water flow is rare. Winter temperatures are as low as 32 degrees Fahrenheit (°F), with summer temperatures exceeding 100°F.

The project site is located near the Tecate Divide in a transitional ecoregion between the peninsular mountains and the Colorado Desert to the east. Vegetation consists of mountain chaparral, characterized by the dominant chaparral vegetation of the lowlands and deserts but lacking the hardwood and conifer woodland of some of the mountain regions around it. Common local fauna includes coyotes, cottontail and black-tailed jackrabbits, deer mouse, and song sparrow, as well as a number of other species of bird, mammals, and reptiles.

2.6.1.2 Cultural Setting

Archaeologists have defined five broad cultural traditions for the upland areas of San Diego County. The earliest is the Paleoindian; these groups had small populations and likely were highly mobile. Scant evidence of occupation of San Diego County by Paleoindian people has been found. The San Dieguito complex is likely the first substantial population of Southern California. While a degree of mobility continued, San Dieguito subsistence strategies focused primarily on coastal shellfish, mountain, and inland game, and plant foods. Artifact assemblages include manos and metates, and the evidence of plant processing differentiates this period from the earlier Paleoindian period. Stemmed (e.g., Lake Mojave or Silver Lake) projectile points, crescents, an abundance of scrapers, a small number of milling tools, and the general use of volcanic lithic materials for the manufacture of flaked stone tools mark the San Dieguito complex.

The San Dieguito complex gave way to the Millingstone Horizon (MSH) as formation of larger settlements increased, long-distance trade networks intensified, and art and personal aesthetics such shell and stone pendants became more elaborate, along with an increasing variety of shell bead types. MSH is thought to represent an ecological adaptation to collecting a wider variety of resources. Ground stone implements for the processing of small seeds, namely metates and slabs paired with manos and mullers, dominated MSH collections. Mortar and pestle, associated with processing acorns, are present, but not common. Hammer stones, chopper tools, various scrapers including scraper planes, and expedient flake cutting tools are abundant.

The Intermediate and Late Prehistoric traditions mark a proliferation of cultures in Southern California. Overall, the Late Holocene regional record is characterized by larger populations with high densities which inhabited larger and more permanent settlements than earlier periods. Artifacts and cultural markers by the Late Prehistoric include pottery, a proliferation of acorn-processing sites in the uplands, the presence of obsidian from Obsidian Butte, the Imperial Valley source, and interment by cremation. The bow and arrow rather than the spear thrower and dart for hunting is inferred from the high densities of small, finely crafted projectile points. Mortar and pestle use expanded and was critical to exploitation of the acorn as a food resource. Since large quantities of acorns were available, which could be stored for long periods of time, the impact on local populations was significant.

2.6.1.3 Ethnographic Setting

The Native American people in the project area at the time of European contact were the Kumeyaay, specifically the Tipai, who spoke a language broadly designated Kumeyaay, which belongs to the Yuman language family. Traditional Kumeyaay territory stretched from the San Diego coast to just beyond the eastern edge of the Salton Basin. The Kumeyaay were divided into exogamous (i.e., marrying outside of) patrilineal clans. The Tipai were 13 clans which had names based on plant, animal, or natural. Each band or clan was autonomous and had a clan chief who oversaw intra- and inter-clan affairs. However, clan membership was fluid, with individuals having affiliation with multiple communities and multiple clans sometimes sharing the same territory. The Tipai managed the landscape, cultivating native grains, burning stubbles, and casting seeds well into the 1880s in inland mountain locations far removed from the mission

establishments near the coast. The indigenous coastal groups were heavily impacted by the Spanish conquest and were subject to control under the Spanish mission system.

The eastern Kumeyaay were not recognized by the federal government and were left on their own to deal with Euro-American encroachment of their homeland. Eventually, the Bureau of Indian Affairs created reservations for the eastern Kumeyaay during the early part of the twentieth century. Today 13 federally recognized bands form the Kumeyaay Nation consisting of Barona, Campo, Capitan Grande (an unoccupied reservation that is part of the Barona Band), Ewiiaapaayp, Inaja Cosmit, Jamul, La Posta, Manzanita, Mesa Grande, San Pasqual, Santa Ysabel, Sycuan, and Viejas. There are also numerous Kumeyaay tribal organizations that are not federally recognized but are recognized by the State of California.

2.6.1.4 Tribal Cultural Resources in the Project Site

Under California's AB 52, TCRs are defined as resources that are eligible for or listed in the California Register of Historical Resources (CRHR), or determined by the CEQA Lead Agency, within its discretion and as supported by substantial evidence, to be a TCR.

As discussed in greater detail in Section 2.3, Cultural Resources and in Appendix E.1, the Native American Heritage Commission (NAHC) was contacted to request a search of their Sacred Lands File on February 4, 2022. The NAHC responded on March 30, 2022, indicating a positive result of the Sacred Lands File. While a positive result does not necessarily indicate the presence of a sacred land within the project site, the NAHC recommended contacting the Ewiiaapaayp Band of Kumeyaay Indians and the Manzanita Band of Kumeyaay Nation for more information.

On January 17, 2024, SWCA sent information-gathering letters via certified mail and email to the 23 individuals from 14 tribes identified by the NAHC, including the two tribes noted above. Follow-up phone calls to the 23 individuals were placed on February 5, 2024, and voicemails were left with contact information if the tribes wanted to reach out. Responses were received from seven of the 23 Tribal contacts. In summary, six of the seven responding tribes, including the Ewiiaapaayp Band of Kumeyaay Indians, Jamul Indian Village (Jamul), Quechan Tribe of the Fort Yuma Reservation, San Pasqual Band of Diegueño Mission Indians (San Pasqual), Sycuan Band of the Kumeyaay Nation, and Viejas Band of Kumeyaay Indians (Viejas) stated they wished to defer consultation to tribes nearer to the project site. The Sycuan Band of the Kumeyaay Nation also requested a copy of the cultural and TCR technical study. The Campo Band of Diegueño Mission Indians (Campo) requested consultation with the County. SWCA also conducted information gathering through subconsultant Loveless and Linton, who provided Kumeyaay Cultural Committee feedback on the initial intensive survey. Finally, Campo provided tribal monitoring during pedestrian survey from September 11 through 29, 2023.

The cultural resources inventory of the project site identified 32 archaeological sites and 41 isolated finds. All 41 of the isolated finds and seven of the archaeological sites have been determined ineligible for listing in the CRHR. An additional four archaeological resources were found to be outside the project site and therefore will not be impacted and were not evaluated for significance. The remaining 21 archaeological resources are assumed eligible for the CRHR. Through project design the resources will be located within dedicated open space easements and impacts will be avoided. None of the archaeological sites has been identified as a TCR.

Pursuant to AB 52, the County initiated tribal outreach and government-to-government consultation with interested California Native American tribes. Nine tribes (Barona Group of Capitan Grande Band of Mission Indians, Campo, Iipay Nation of Santa Ysabel, Jamul, Kwaaymii Laguna Band of Mission Indians, Manzanita Band of the Kumeyaay Nation, San Pasqual, Sycuan Band of the Kumeyaay Nation, and Viejas) were sent notices of the project. Four tribes (Campo, Jamul, San Pasqual, and Viejas) requested formal

government-to-government consultation. The County has met with Campo, Jamul, San Pasqual and Viejas. On February 5, 2024, Jamul concluded its consultation with the County and deferred to Campo. San Pasqual was provided an earlier draft copy of this report on May 30, 2024. To date, no response has been received from San Pasqual. The County and Viejas concluded consultation on March 18, 2025. During consultation with Campo, the Tribe requested a larger, unspecified distance between cultural resource boundaries and construction areas. The County and Campo concluded consultation on December 3, 2024. However, as a result of consultation to date, no TCRs have been identified within the project site.

2.6.2 Regulatory Setting

2.6.2.1 State Regulations

California State Assembly Bill 52

California State AB 52 requires public agencies to consult with tribes during the CEQA process. As of 2015, CEQA established that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Public Resources Code [PRC] Section 21084.2). To be considered a TCR, a resource must be either listed, or determined to be eligible for listing, in the national, state, or local register of historic resources; or a resource that the lead agency chooses, in its discretion, to treat as a TCR.

To help determine whether a project may have such an effect, the lead agency must consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. If a lead agency determines that a project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact. PRC Section 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to TCRs.

PRC Section 21074(a) defines TCRs as follows:

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.
    a. 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.
    b. 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).

The Governor's Office of Land Use and Climate Innovation, formerly known as the Governor's Office of Planning and Research, defines what constitutes *substantial evidence* as follows:

> Evidence that may support such a finding could include elder testimony, oral history, tribal government archival information, testimony of a qualified archaeologist certified by the relevant tribe, testimony of an expert certified by the tribal government, official tribal government declarations or resolutions, formal statements from a certified Tribal Historic Preservation Officer, or historical/anthropological records. (Governor's Office of Planning and Research 2017:5)

PRC Section 5097.5 states that no person shall "knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands." Violation of this section is a misdemeanor. As defined in this section, "public lands" means "lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof."

Native American Human Remains

Sites that may contain human remains important to Native Americans must be identified and treated in a sensitive manner, consistent with state law (i.e., Health and Safety Code Section 7050.5 and PRC Section 5097.98), as outlined below:

If potential human bone or human remains are encountered during project development, and in accordance with Health and Safety Code Section 7050.5, the county coroner must be notified. The coroner will then determine within 2 working days of being notified whether the remains are subject to his or her authority. If the coroner recognizes the remains to be Native American, he or she shall contact the NAHC by phone within 24 hours, in accordance with PRC Section 5097.98. The NAHC will then designate a Most Likely Descendent (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work the means for treating or disposing, with appropriate dignity, the human remains and associated grave goods.

2.6.2.2 Local Regulations

Conservation and Open Space Element of the County's General Plan

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a), presents the County's goals and policies for cultural resources in Chapter 5, Conservation and Open Space Element (County of San Diego 2011b). Archaeological and historic resources, known collectively as cultural resources, are the tangible or intangible remains left by ancestral people who made and used them. Cultural resources, found throughout San Diego County, are irreplaceable reminders of the county's prehistoric and historic past that continue to have value for communities today. These resources can provide clues to prehistoric and historic human behaviors and provide scientific, religious, and other valuable educational information about the cultural past. In addition, these resources such as sacred places and traditional cultural properties continue to influence and have value for San Diego County's living tribal people. The cultural environment encompasses both the built (post-1769) and the archaeological environments, which include both prehistoric and historic archaeological sites. Cultural resources are found throughout San Diego County and include not only physical evidence of the past such as Native American rock shelters and pictographs but the intangible evidence such as traditional cultural lands and sacred sites. Examples of historic cultural resources (the built environment) include homes, barns, bridges, fountains, and silos. In 2008, more than 23,000 recorded cultural resource sites had been recorded within San Diego County, and this number continues to grow.

County goals and policies for cultural resources are as follows (County of San Diego 2011b):

- **GOAL COS-7- Protection and Preservation of Archaeological Resources.** Protection and Preservation of the County's important archaeological resources for their cultural importance to local communities, as well as their research and educational potential.
    - **COS-7.1 Archaeological Protection.** Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the equality and integrity of these resources.
    - **COS-7.2 Open Space Easements.** Require development to avoid archeological resources whenever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources.
    - **COS-7.3 Archaeological Collections.** Require the appropriate treatment and preservation of archaeological collections in a culturally appropriate manner.
    - **COS-7.4 Consultation with Affected Communities.** Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources.
    - **COS-7.5 Treatment of Human Remains.** Require human remains be treated with the utmost dignity and respect and that the disposition and handling of human remains will be done in consultation with the Most Likely Descendant (MLD) and under the requirements of Federal, State and County Regulations.
    - **COS-7.6 Cultural Resource Data Management.** Coordinate with public agencies, tribes, and institutions in order to build and maintain a central database that includes a notation whether collections from each site are being curated, and if so, where, along with the nature and location of cultural resources throughout the County of San Diego.

County of San Diego Resource Protection Ordinance

The County Code of Regulatory Ordinances Sections 86.601 through 86.608 (Resource Protection Ordinance [RPO]) protects significant cultural resources. The RPO defines "Significant Prehistoric or Historic Sites" in Section 86.602(o) as follows:

- Any prehistoric or historic district, site, interrelated collection of features or artifacts, buildings, structure, or object either:
    a) Formally determined eligible or listed in the National Register of Historic Places by the Keeper of the National Register; or
    b) To which the Historic Register ("H" Designator) Special Area Regulations have been applied; or
- One-of-a-kind, locally unique, or regionally unique cultural resources which contained a significant volume and range of data and materials; and
- Any location of past or current sacred religious or ceremonial observances which is either:
    a) Protected under Public Law 95-341, the American Indian Religious Freedom Act or Public Resources Code Section 5097.9 such as burial (s), pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures or,
    b) other formally designated and recognized sites which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

The RPO does not allow nonexempt activities or uses damaging to significant prehistoric or historic lands on properties under County jurisdiction. The only exempt activity is scientific investigation. All discretionary projects are required to be in conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites. Noncompliance would result in a project that does not meet the County standards.

2.6.3 Analysis of Project Effects and Determination as to Significance

2.6.3.1 Methodology

Guidelines for the Determination of Significance

The County's guidelines for determining significance (County of San Diego 2007a) do not include guidance on TCRs. However, as mentioned above, both AB 52 and the County's RPO include protections for certain types of significant cultural resources as well as locations of sacred or ceremonial observances. Therefore, for the purpose of this EIR, Appendix G of the State CEQA Guidelines (14 California Code of Regulations 15000 et seq.) and the County's RPO apply to the direct and indirect impact analysis, as well as the cumulative impact analysis. A significant impact would result if:

- The project, as designed, causes 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:
    - listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC 5020.1(k); or
    - a resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria in PRC 5024.1(c). In applying these criteria, the Lead Agency shall consider the significance of the resource to a California Native American tribe.
- The project proposes activities or uses damaging to cultural resources of tribal significance as defined by the County RPO and fails to preserve those resources.

Analysis

Project-related impacts to TCRs could occur through the destruction or alteration of a TCR such that it no longer qualifies for inclusion on the CRHR or no longer qualifies as a resource that falls under the County RPO. This likely would occur through ground-disturbing activities such as grading, grubbing, excavating, trenching, boring, other activities that disturb or displace TCRs. Construction of the proposed project would involve clearing, grubbing, and grading for installation of project components, and trenching for installation of the gen-tie line and other subsurface utilities. Indirect impacts to TCRs can also occur, including vandalism or inadvertent disturbance due to increased access and visitation to the project site, and adversely affecting the visual setting of a resource, if the setting contributes to the resource's eligibility.

The analysis of potential impacts to TCRs resulting from implementation of the proposed project is based on a review of archival records, Native American outreach, pedestrian field survey accompanied by a tribal observer, and AB 52 consultation conducted by the County. As a result of these efforts, no known TCRs as defined in CEQA have been identified within the project site. Additionally, all archaeological resources within the project site that remain unevaluated and are assumed eligible for the CRHR will be placed in open space easements and impacts will be avoided (see Section 2.3, Cultural Resources).

While no TCRs have been identified, TCRs could be encountered during project construction. If such resources are encountered, they could be impacted both directly through destruction or physical alteration, or indirectly through visual alteration to the surrounding setting. Such impacts would be **potentially significant** (**Impact TCR-1**).

2.6.4 Cumulative Impact Analysis

The cumulative projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting, and within this geographic area of consideration include other solar projects, a wind project, and a water project. Some of these projects involve related improvements such as electrical substations and subsurface or overhead generation-tie lines. Several of those that have been analyzed under CEQA have the potential to impact both cultural resources and TCRs. Therefore, the proposed project, along with these projects in the cumulative area of analysis, are capable of collectively contributing to impacts to TCRs. Cumulative projects on state or public lands would be required to comply with PRC Sections 5097–5097.6 pertaining to impacts to TCRs. Other cumulative projects would be regulated by federal, state, and local regulations, including CEQA and the San Diego County Code of Regulatory Ordinances Title 8, Division 7, Grading, Clearing, and Watercourses.

No TCRs have been identified within the project site. However, TCRs could be encountered during construction. The preparation and implementation of a Treatment Agreement and Preservation Plan (**M-CR-2**), as well as archaeological and Native American monitoring (**M-CR-3**) during project construction would ensure proper identification, documentation, evaluation, treatment, and reporting of inadvertent discoveries, including TCRs. As a result, the project **would not contribute to a cumulatively considerable impact** to TCRs.

2.6.5 Significance of Impacts Prior to Mitigation

Construction of the project could encounter and impact previously undocumented TCRs within the project site, including human remains and archaeological resources that may qualify as TCRs. The project would have a **potentially significant impact** prior to mitigation.

2.6.6 Mitigation Measures

Mitigation measures **M-CR-2** and **M-CR-3**, presented in Chapter 2.3, Cultural Resources, would also mitigate potential impacts under **Impact TCR-1**, as follows:

M-CR-2 **Cultural Resources Treatment Agreement and Preservation Plan**. In order to mitigate for impacts to cultural resources and tribal cultural resources (TCRs), the Applicant shall develop and enter into a Cultural Resources Treatment Agreement and Preservation Plan with the consulting Native American tribes.

A Cultural Resources Treatment Agreement and Preservation Plan shall be developed between the Applicant or their representative and the consulting Native American tribes. The Cultural Resources Treatment Agreement and Preservation Plan shall be reviewed and agreed to by the County prior to final signature and authorization. The Cultural Resources Treatment Agreement and Preservation Plan shall include but is not limited to the following:

1. Parties entering into the agreement and contact information.

2. Responsibilities of the Property Owner or their representative, Principal Investigator (PI), archaeological monitors, Kumeyaay Native American monitors, and consulting tribes.
3. Requirements of the Archaeological Monitoring Program including unanticipated discoveries. The requirements shall address grading and grubbing requirements including controlled grading and controlled vegetation removal in areas of cultural sensitivity, analysis of identified cultural materials, and on-site storage of cultural materials.
4. Treatment of identified Native American cultural materials and TCRs.
5. Treatment of Native American human remains and associated grave goods.
6. Incorporation of P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 into dedicated open space in Phase I. Incorporation of P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 into dedicated open space in Phase II.
7. Interim treatment and final internment of Native American cultural soils and materials.
8. Confidentiality of cultural information including location and data.
9. Regulations that apply to cultural resources and TCRs that have been identified or may be identified during project construction.

A copy of the implemented agreement shall be submitted to the County for approval, prior to the approval of any plan and issuance of any permit. The County shall review the implemented agreement for compliance this condition.

M-CR-3 **Archaeological and Native American Monitoring**. In order to mitigate for potential impacts to undiscovered buried archaeological resources and human remains, an Archaeological Monitoring Program and potential Data Recovery Program shall be implemented pursuant to the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* and the California Environmental Quality Act (CEQA). This shall be implemented prior to approval of any grading and or improvement plans and issuance of any Grading or Construction Permits, for both Phases for the period of time that ground-disturbing activities have the potential to uncover or disturb cultural resources, as determined by the Principal Investigator.

A County-approved Principal Investigator known as the "Project Archaeologist" shall be contracted to perform monitoring and a potential data recovery program during all grading, clearing, grubbing, trenching, and earth-disturbing activities for both Phases I and II. The Project Archaeologist shall contract with a Kumeyaay Native American monitor(s) to conduct Native American monitoring for the project.

The monitoring program for both Phases I and II shall include the following:

1. Preconstruction
    a. Contract with a County-approved archaeologist to perform archaeological monitoring and a potential data recovery program during all earth-

disturbing activities. The Project Archaeologist shall perform the monitoring duties before, during and after construction.

b. Hold a preconstruction meeting to be attended by the Project Archaeologist and Kumeyaay Native American monitor(s) to explain the monitoring requirements.

2. Construction Monitoring

a. Both the Project Archaeologist and Kumeyaay Native American monitor(s) are to be on-site during earth-disturbing activities. The frequency and location of monitoring of native soils shall be determined by the Project Archaeologist in consultation with the Kumeyaay Native American monitor. Both the Project Archaeologist and Kumeyaay Native American monitor shall evaluate fill soils to ensure that they are negative for cultural resources, including those that could be identified as TCRs.

b. If cultural resources or TCRs are identified:

i. Both the Project Archaeologist and Kumeyaay Native American monitor(s) have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.

ii. The Project Archaeologist shall contact the County Archaeologist at the time of discovery.

iii. The Project Archaeologist in consultation with the County Archaeologist and Kumeyaay Native American monitor(s) shall determine the significance of discovered resources.

iv. Construction activities shall be allowed to resume after the County Archaeologist has concurred with the significance evaluation.

v. Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Kumeyaay Native American monitor may collect the cultural material for transfer to a tribal curation facility or repatriation program.

c. If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Kumeyaay Native American monitor(s) and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources or Sacred Sites, including TCRs; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for nonunique cultural resources. The preferred option is preservation (avoidance).

3. Human Remains

a. The Property Owner or their representative shall contact the County Coroner and the Planning and Development Services Staff Archaeologist.

b. Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin. If the human remains are to be taken off-site for evaluation, they may be accompanied by the Kumeyaay Native American monitor.

c. If 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 by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.

d. The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.

e. Public Resources Code Section 5097.98, CEQA 15064.5, and Health and Safety Code 7050.5 shall be followed in the event that human remains are discovered.

4. Rough Grading

a. Monitoring Report. Upon completion of rough grading, a monitoring report shall be prepared identifying whether resources were encountered. A copy of the monitoring report shall be provided to the South Coastal Information Center and any culturally affiliated tribe who requests a copy.

5. Final Grading

a. Final Report. A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered. A copy of the final report shall be submitted to the South Coastal Information Center and any culturally affiliated tribe who requests a copy.

b. The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or tribal curation facility that meets federal standards per 36 Code of Federal Regulations (CFR) 79, or alternatively have been repatriated to a culturally affiliated tribe.

c. The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR 79.

The Applicant shall provide a copy of the Archaeological Monitoring Contract or letter of acceptance, cost estimate, and memorandum of understanding (MOU) to the County. Additionally, the cost amount of the monitoring work shall be added to the grading bond cost estimate for both Phases I and II.

Planning and Development Services shall review the contract or letter of acceptance, MOU, and cost estimate or separate bonds for compliance with this condition. The cost estimate should be forwarded to the County for inclusion in the grading bond cost estimate, and grading bonds and the grading monitoring requirement shall be made a condition of the issuance of the grading or construction permit.

2.6.7 Conclusion

No TCRs have been identified within the project site. However, previously undocumented TCRs could be identified and impacted during project implementation (**Impact TCR-1**). Impacts to TCRs would be mitigated to **less than significant** through implementation of **M-CR-2** (Treatment Agreement and Preservation Plan) and **M-CR-3** (Archaeological and Native American Monitoring). Impacts to TCRs **would not be cumulatively considerable**.

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2.7 Wildfire

This section of the Environmental Impact Report (EIR) discusses potential impacts related to wildfire resulting from construction, operation and decommissioning of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the proposed project in accordance with the *County Guidelines for Determining Significance and Report Format and General Content Requirements – Wildland Fire and Fire Protection* (County of San Diego 2023a):

- *Fire Protection Plan, Starlight Solar Project* (FPP) (SWCA Environmental Consultants 2024) (Appendix L of this EIR)
- *Draft Fire Services Agreement* (County of San Diego 2025) (Appendix P of this EIR)

This analysis is further supplemented by the following technical studies:

- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Battery Energy Storage System NFPA 551 Fire Risk Assessment and Heat Flux Analysis* (Hiller 2025a) (Appendix O.1 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Battery Energy Storage System IEC 60812 Failure Mode and Effects Analysis* (Hiller 2025b) (Appendix O.2 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Balance of Plant NFPA 551 Fire Risk Assessment* (Hiller 2025c) (Appendix O.3 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Balance of Plant IEC 60812 Failure Mode and Effects Analysis* (Hiller 2025d) (Appendix O.4 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Balance of Plant Hazard Mitigation Analysis* (Hiller 2025e) (Appendix O.5 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary First Responders Guide* (Hiller 2025f) (Appendix O.6 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the location of the project site in a high fire risk area and the potential wildfire risks posed by the project. These concerns are addressed in this section of the EIR, where applicable, and within the FPP (see Appendix L). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comment, of this EIR.

2.7.1 Existing Conditions

2.7.1.1 Project Site Setting

The project site and surrounding area were historically a privately owned ranch; the land has been used for various activities, such as livestock grazing, manicured living compounds, developed areas, and open land. Beyond the private ranchland there is mixed land ownership, including federal land (Cleveland National Forest managed by the U.S. Forest Service and Campo Reservation managed by the Bureau of Indian Affairs), as well as the state preserve of Jacumba Wilderness.

Vegetation on the project site has been influenced by topography, climate, weather patterns, and past land use. The project site is predominantly flat with some hilly slopes and drainages; elevation ranges from 3,370 feet to 3,700 feet (see Appendix L). The climate is generally dry with limited precipitation throughout the

year and warm temperatures. The area surrounding the project site has more diverse topography with drainages and steeply sloping mountainous terrain. Rattlesnake Mountain is a notable topographic feature to the south.

Vegetation on-site is mainly grass and shrub species, with areas of coastal live oak. Fuel loadings vary from moderate to heavy, depending on the species present, past activities conducted on-site, and recent weather patterns. Fire behavior modeling was conducted in February 2024 using the Interagency Fuels Treatment Decision Support System (IFTDSS) (see Appendix L; U.S. Department of the Interior 2024). IFTDSS is a web-based application that models fire behavior under a variety of weather conditions and possible fuels treatments for an area of interest or a landscape. IFTDSS uses the following data parameters: 1-hour, 10-hour, and 100-hour dead fuel moistures; herbaceous and woody live fuel moistures; and wind speed and direction. Fuel size classes (1-hour, 10-hour, and 100-hour) used for dead fuel moisture are based on the fuel size diameter and how long it takes for approximately 67% of the moisture content of the woody fuel to reach equilibrium with the environment. Live fuel moistures range from approximately 50% to 300%, depending on the stage of vegetative development. Approximately 42 acres of the project site are non-burnable (either developed or bare ground). Off-site vegetation surrounding the project site is very similar; there are areas of dense shrub and grass loadings, and considerable non-burnable developed acreage (approximately 707 acres within a 1-mile radius) (see Appendix L).

2.7.1.2 CAL FIRE Fire Hazard Severity Zones

The entire project site is within a California Department of Forestry and Fire Protection (CAL FIRE)–designated High Fire Hazard Severity Zone (FHSZ) due to the type of fuels, weather and wind patterns, topographic conditions, and fire history (CAL FIRE 2024; Figure 2.7-1 and Figure 2.7-2). Fires with grass and shrub as the main fuel types are known for faster rates of spread and are often driven by wind and topography, particularly when they align. Fires with these fuel types can have greater flame lengths and fireline intensities that prevent firefighting resources from directly engaging in suppression when there is heavy fuel loading (see Appendix L). Fire has always been a part of the landscape in the area, as these are fire-prone ecosystems composed primarily of chaparral and grass; fuels will readily burn when conditions are right and there is an ignition source. From 2000 to 2023, there were 33 fires within a 10-mile radius of the project site; the majority were small (<100 acres) (Table 2.7-1; see Figure 2.7-2).

Table 2.7-1. Fires Occurring from 2000 to 2023 within a 10-Mile Radius of the Project Site

Fire Year	Fire Name	Total Area Burned (acres)
2000	Border 6	74.56
2002	Manzanita 2	214.90
2003	Jewell	41.74
2003	Range	28.96
2004	Border 10	88.98
2004	La Posta	27.89
2004	Hi Pass	23.48
2004	Border 7	21.11
2005	Church	50.90
2005	Railroad	40.28
2005	Ribbonwood	35.56
2005	Miller	19.71
2005	Sand	10.63

Fire Year	Fire Name	Total Area Burned (acres)
2006	Unnamed fire	12
2008	Shockey	131.36
2008	Carrizo	46.81
2008	Border 15	20.18
2008	Carrizo	12.41
2011	Border 16	21.73
2012	Shockey	2,555.59
2012	Old 2	995.68
2012	Border 12	121.30
2012	Border 6	61.56
2012	La Posta	10.94
2013	Border	61.56
2013	Morena	1.43
2014	Jacumba	26.66
2017	Eclipse	142.91
2018	Recycle	248.38
2018	Church 2	11.05
2019	Crestwood	31.55
2022	Jewel	29.14
2023	Blackwood	37.40

Source: CAL FIRE 2025

2.7.1.3 Emergency Services and Response

The project site is accessible via Jewel Valley Road and additional emergency access would be provided via Tule Jim Lane. Jewel Valley Road is paved in certain segments and is otherwise a flat, well-maintained dirt road. Tule Jim Lane is also a well-maintained dirt road. Both roads are wide enough to accommodate two-way traffic for emergency vehicles and connect to Old Highway 80 in the community of Boulevard. Each site entrance would feature a manual swing gate and a sign with a lighted directory map and contact information. All entrance gates would feature a Knox Box to allow ease of access for emergency service providers.

The *San Diego County General Plan: A plan for growth, conservation, and sustainability* (General Plan) (County of San Diego 2011a) addresses fire station travel times in its Safety Element (County of San Diego 2021), which provides fire station travel time standards for each land use designation. The majority of the project site is designated as Rural Lands 80 (RL-80), which has a travel time requirement of greater than 20 minutes Element (County of San Diego 2021: Table S-3). The generation-tie line route and San Diego Gas and Electric Company (SDG&E) Boulevard substation are designated as Semi-Rural Residential (SR-10), which has a travel time requirement of 20 minutes.

The project site, within the San Diego County Fire Protection District (SDCFPD) jurisdiction, has one fire station within a 5-minute drive time, two stations within a 10-minute drive time, and an additional station within a 15-minute drive time (Figure 2.7-3 and Figure 2.7-4). SDCFPD Boulevard Station 47 is 1 mile from the project site and within a 5-minute drive time. The CAL FIRE White Star Station and the Campo

Reservation Fire Protection District Station are both within 10-minute drive times, at 1.6 and 4.3 miles, respectively, and CAL FIRE Jacumba Station 43 is 5 miles from the project site with a drive time of 15 minutes. Two additional fire stations—CAL FIRE Campo Station 40 and SDCFPD Lake Morena Station 42—are just outside the 15-minute drive time but are within the 20-minute standard for semi-rural settings. These stations are staffed for incident response with adequate apparatus and firefighting equipment. As discussed further in Appendix L, drive times were calculated using the ArcGIS Pro Generate Service Areas tool in the Network Analysis toolbox (Esri 2024).

2.7.2 Regulatory Setting

Many federal, state, and county regulations have been enacted to mitigate impacts from potential wildfires on the environment and the safety of both emergency service responders and the public. The regulations below are relevant to the project and the topics of wildfire and emergency services during development and implementation.

2.7.2.1 Federal Regulations

National Fire Protection Association Standard 855

National Fire Protection Association (NFPA) Standard 855, Standard for the Installation of Stationary Energy Storage Systems, was created to address increased use of new technologies in modern energy storage systems (ESSs) and the fire and life safety hazards associated with them. The NFPA standardizes criteria for fire protection of ESS installations based on the technology used in the ESS, environmental setting, size and separation of ESS installations, and the fire suppression and control systems in place. It also considers ventilation, detection, signage, listings, and emergency operations responding to ESS emergencies (NFPA 2023).

North American Electric Reliability Corporation Standards

In compliance with Section 215 of the Federal Power Act, North American Electric Reliability Corporation (NERC) developed mandatory and enforceable reliability standards such as emergency preparedness and operations; facilities design, connections, and maintenance; personnel performance, training, and qualifications; and protection and control. These standards ensure reliable energy production as well as safe operation and maintenance practices (NERC 2024).

National Fire Plan

The National Fire Plan was developed in 2000 to guide swift and organized response to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity. The National Fire Plan addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability. The National Fire Plan provides technical, financial, and resource guidance and support for wildland fire management across the United States (Forests and Rangelands 2024).

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) requires utilities to adopt and maintain minimum clearance standards between vegetation and transmission voltage power lines. These clearances vary depending on voltage. In most cases, the minimum clearances required in state regulations are greater than the federal requirement. In California, for example, the state has adopted General Order 95 rather than the NERC standards as the electric safety standard for the state. FERC standards are not discussed further.

National Electric Safety Code 2017

The National Electric Safety Code covers basic provisions related to electric supply stations, overhead electric supply and communication lines, and underground electric supply and communication lines. The code also contains work rules for construction, maintenance, and operational activities associated with electric supply and communication lines and equipment. The code, which must be adopted by states on an individual basis, is not applicable in the State of California. As stated previously, the State of California has adopted its own standard (General Order 95) rather than a general national standard. The National Electric Safety Code is not discussed further.

Institute of Electrical and Electronics Engineers Standard 516-2009

The Institute of Electrical and Electronics Engineers is a leading authority in setting standards for the electric power industry. Standard 516-2009, *Guide for Maintenance Methods on Energized Power Lines* (Institute of Electrical and Electronics Engineers 2009), establishes minimum vegetation-to-conductor clearances to maintain electrical integrity of the electrical system.

2.7.2.2 State Regulations

California Assembly Bill 337 and Senate Bill 63

Assembly Bill 337 required the State of California to identify very high FHSZs based on factors such as the type of fuels, weather and wind patterns, and topographic conditions. New structures in these designation areas require specific fire prevention modifications. Senate Bill 63 modified and expanded Assembly Bill 337.

California Building Code Chapter 7A

Chapter 7A of the California Building Code describes the building materials and construction methods required in the exterior design and construction of new buildings located in a CAL FIRE FHSZ.

California Fire Code

California Fire Code Section 503 specifies width, vertical clearance, grade and cross-slope, turnouts, dead-end road lengths, and surface material for fire apparatus roads. Section 503 also describes required marking for fire lane designation and restrictions on gates or other blocked access devices.

Section 508 includes fire protection water supply specifications include the water source(s), minimum water flow and water pressure, and fire hydrant and valve location and signing. If water tanks are used, there are multiple specifications for size, installation, and material in accordance with NFPA 22 standards.

Section 903.2 states that approved automatic sprinkler systems must be installed in all new buildings and meet NFPA 13 standards. Additionally, NFPA 855 has standards specific to the installation of ESSs, which includes fire detection and suppression systems.

Section 1205.5 addresses installation of ground-mounted photovoltaic (PV) arrays. It includes specifications on fire apparatus access roads, a perimeter fire apparatus access road, fuel modification within a designated zone, water supply, and identification of all equipment and structures.

California Public Resources Code

California Public Resources Code Section 4292 requires that a minimum firebreak of 10 feet in all directions from the outer circumference of a pole or tower be established around any pole that supports a switch, transformer, lightning arrester, line junction, or end or corner pole. All vegetation shall be cleared within the firebreak.

California Public Resources Code Section 4293 states that any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, in forest-covered land, or in grass-covered land and has primary responsibility for the fire protection of such area shall maintain a clearance of a certain distance, depending on line voltage. This section establishes the minimum vegetation clearance distances (between vegetation and energized conductors) required for overhead transmission line construction. Minimum clearances are as follows:

- A minimum radial clearance of 4 feet shall be established for any conductor of a line operating at 2,400 or more volts but less than 72,000 volts.
- A minimum radial clearance of 6 feet shall be established for any conductor of a line operating at 72,000 or more volts but less than 110,000 volts.
- A minimum radial clearance of 10 feet shall be established for any conductor of a line operating at 110,000 or more volts but less than 300,000 volts.
- A minimum radial clearance of 15 feet shall be established for any conductor of a line operating at 300,000 or more volts.

Specific requirements applicable to the construction and operation of the proposed project include those from the following sections in California Public Resources Code, Division 4, Chapter 6:

- Section 4427 – Operation of fire-causing equipment
- Section 4428 – Use of hydrocarbon-powered engines near forest, brush, or grass-covered lands without maintaining firefighting tools
- Section 4431 – Gasoline-powered saws and firefighting tools
- Section 4442 – Measures, requirements, and exemptions for spark arresters

2.7.2.3 Local Regulations

County of San Diego Consolidated Fire Code

The County of San Diego (County) in collaboration with the local fire protection districts, created the first Consolidated Fire Code (CFC) in 2001. The CFC incorporates local fire district fire codes as ratified by the Board of Supervisors into a single document, to promote consistency in fire code interpretation and enforcement for the protection of public health and safety. The 2023 CFC (County of San Diego 2023b) is the most recently adopted version and presents the current fire regulations approved by the Board of Supervisors on April 13, 2023, that apply in the various fire districts. The CFC includes permit requirements for the installation, alteration, or repair of new and existing fire protection systems, and penalties for violations of the code. It provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally, the CFC regulates hazardous materials and provides associated measures to ensure that public health and safety are protected from incidents relating to hazardous substance releases.

San Diego County General Plan

The General Plan (County of San Diego 2011a) guides future growth in the unincorporated areas of San Diego County and considers projected growth anticipated to occur within various communities. The Land Use, Conservation and Open Space, and Safety Elements of the General Plan contain policies that address public services in the county.

New development requires demonstration of adequate fire services; this includes minimum staffing at a facility within an established maximum travel time to the development site. Required travel times are correlated to the different land use designations made by the County.

The following policies of the Land Use Element (County of San Diego 2011b) are applicable to the proposed project:

- **LU-6.10 Protection from Hazards.** Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.
- **LU-12.1 Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.

The following policy of the Conservation and Open Space Element (County of San Diego 2011c) is applicable to the proposed project:

- **COS-14.11 Native Vegetation.** Require development to minimize the vegetation management of native vegetation while ensuring sufficient clearing is provided for fire control.

The following policies of the Safety Element (County of San Diego 2021) are applicable to the proposed project:

- **Policy S-1.7 Community Plan Updates.** A series of criteria for community plan updates that incorporate public safety components.
- **Policy S-2.1 Future Fire Protection Plans.** Future Fire Protection Plans shall evaluate evacuations in accordance with the evacuation standards adopted by the San Diego County Fire Protection District.
- **Policy S-2.2 Evacuation Impediments.** Advise, and where appropriate, require all new developments to help eliminate impediments to evacuation within existing community plan areas, where limited ingress/egress conditions could impede evacuation events.
- **Policy S-2.3 Community Plan Evacuation.** Identify community plan areas that have reduced or limited circulation access and develop an evacuation plan, including an Evacuation Traffic Management Plan and recommended improvements to ensure adequate evacuation capabilities. Community Evacuation Plans should be evaluated and revised to address changes in at-risk areas and populations to ensure effectiveness.
- **Policy S-4.1. Defensible Development.** Require development to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life safety resulting from wildland fires**.**
- **Policy S-4.2 Development in Hillsides and Canyons.** Require development located in wildland areas, near ridgelines, top of slopes, saddles, or other areas where the terrain or topography affects its susceptibility to wildfires to be located and designed to account for topography and reduce the

increased risk from fires. Density reduction may be necessary to reduce fire hazards if the location and design of the development cannot reduce the threat effectively.

- **Policy S-4.3. Minimize Flammable Vegetation.** Site and design development to minimize the likelihood of a wildfire spreading to structures by minimizing pockets or peninsulas, or islands of flammable vegetation within a development.
- **Policy S-4.4 Service Availability.** Plan for development where fire and emergency services are available or planned.
- **Policy S-4.5. Access Roads.** Require development to provide additional access roads where feasible to provide for safe access of emergency equipment and civilian evacuation concurrently. The width, surface, grade, radius, turnarounds, turnouts, bridge construction, vegetative management and brush clearance around roadways, and lengths of fire apparatus access roads shall meet the requirements of the State and San Diego County Consolidated Fire Codes. All requirements and any deviations will be at the discretion of the Fire Code Official.
- **Policy S-4.6. Fire Protection Plans.** Ensure that development located within fire hazard areas implement measures in a Fire Protection Plan that reduce the risk of structural and human loss due to wildfire.
- **Policy S-4.7. Fire Resistant Construction.** Require all new, remodeled, or rebuilt structures to meet current ignition resistance construction codes and establish and enforce reasonable and prudent standards that support retrofitting of existing structures in high fire hazard areas.
- **Policy S-6.4 Regional Evacuation Coordination.** Coordinate with State and Federal landowners regarding joint use and access agreements for roadways located on state and federal lands that can be used for evacuation purposes.
- **Policy S-7.1 Water Supply.** Ensure that water supply infrastructure adequately supports existing and future development and provides adequate water flow to combat structural and wildland fires. Water systems shall equal or exceed the California Fire Code, California Code of Regulations, or, where a municipal-type water supply is unavailable, the latest edition of National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting."
- **Policy S-7.2: Funding Fire Protection Services.** Require development to contribute its fair share towards funding the provision of appropriate fire and emergency medical services as determined necessary to adequately serve the project.
- **Policy S-7.3: Fire Protection Services for Development**. Require that new development demonstrate that adequate fire services can be provided that meet the minimum staffing of personnel and that meet the minimum travel times identified in Table S-3 (Travel Time Standards from Closest Fire Station).

County of San Diego Multi-Jurisdictional Hazard Mitigation Plan

The federal Disaster Mitigation Act of 2000 requires all local governments to create a disaster plan to qualify for hazard mitigation funding; wildfires are one such natural disaster. This county-wide plan (County of San Diego 2023c) identifies risks from both natural and human-made disasters and discusses ways to minimize potential damage from them.

San Diego County Operational Area Emergency Operations Plan

The County Board of Supervisors approved the updated San Diego County Emergency Operations Plan in August of 2022 (County of San Diego 2022). The Emergency Operations Plan was developed to assist the

County and all cities in establishing relationships and communication among jurisdictions and agencies. The Emergency Operations Plan identifies implementation procedures for mutual aid and similar support during emergency situations such as wildfire. The Emergency Operations Plan also describes a comprehensive emergency management system that allows a planned response to emergency situations; using the Standardized Emergency Management System and the National Incident Management System, the Emergency Operations Plan is scalable to emergency situations of different complexity levels and sizes.

San Diego County Ordinance 68.401–68.406, Defensible Space for Fire Protection Ordinance

This ordinance addresses the accumulation of weeds, rubbish, and other materials on a private property found to create a fire hazard and be injurious to the health, safety, and general welfare of the public. The ordinance constitutes the presence of such weeds, rubbish, and other materials as a public nuisance, which must be abated in accordance with the provisions of this section. This ordinance is enforced in all County Service Areas and in the unincorporated areas of the County outside of a fire protection district. All fire protection districts have a combustible vegetation abatement program, and many fire protection districts have adopted and enforce the County's ordinance.

San Diego County Ordinance 96.1.005 and 96.1.202, Removal of Fire Hazards

The SCDFPD, in partnership with CAL FIRE, the federal Bureau of Land Management, and the U.S. Forest Service, is responsible for the enforcement of defensible space inspections. Inspectors from CAL FIRE are responsible for the initial inspection of properties to ensure an adequate defensible space has been created around structures. If violations of the program requirements are noted, inspectors provide a list of required corrective measures and provide a reasonable time frame to complete the task. If the violations still exist upon reinspection, the local fire inspector will forward a complaint to the County for further enforcement action.

San Diego County Required Fire Prevention in Project Design Standards

Following the October 2003 wildfires, the County incorporated a number of fire prevention strategies into the discretionary project review process for California Environmental Quality Act (CEQA) projects. One of the more significant changes is the requirement that the majority of discretionary permits (e.g., subdivision and use permits) in wildland-urban interface areas prepare an FPP for review and approval. An FPP is a technical report that considers the topography, geology, combustible vegetation (fuel types), climatic conditions and fire history of the project location. The plan addresses the following in terms of compliance with applicable codes and regulations including but not limited to water supply, primary and secondary access, travel time to the nearest fire station, structure setback from property lines, ignition-resistant building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, and vegetation management.

2.7.3 Analysis of Project Effects and Determination as to Significance

2.7.3.1 Methodology

Guidelines for the Determination of Significance

For the purpose of this EIR, Appendix G of the State CEQA Guidelines (14 California Code of Regulations 15000 et seq.) applies to both the direct impact analysis and the cumulative impact analysis. A significant impact would result if the effects exceed the significance criteria described below:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- 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.
- 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.
- 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.

Additionally, the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Wildland Fire and Fire Protection* (County of San Diego 2023a) applies to both the direct impact analysis and the cumulative impact analysis. An affirmative response to, or confirmation of, any one of the following guidelines will generally be considered a significant impact related to wildland fire and fire protection as a result of the project, in the absence of evidence to the contrary:

- The project cannot demonstrate compliance with all applicable fire codes.
- A comprehensive Fire Protection Plan has been accepted and the project is inconsistent with its recommendations.
- The project does not meet the emergency response objectives identified in the Safety Element of the County General Plan or offer feasible alternatives that achieve comparable emergency response objectives.

The County guidelines also require the preparation of an FPP for any project located in a CAL FIRE–designated High or Very High FHSZ. As the project site is in a High FHSZ, an FPP was prepared for the project (see Appendix L) and would be evaluated concurrently with this EIR. The FPP was accepted by the SDCFPD in February 2024; the project would adhere to the recommendations of the FPP and would comply with applicable fire codes. Therefore, the first two County guidelines listed above are not further discussed in this section. Potential impacts related to emergency response are addressed in the following section.

2.7.3.2 Emergency Response/Evacuation Plan

Guidelines for the Determination of Significance

This impact analysis considers the following guideline from the State CEQA Guidelines, Appendix G:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.

In addition, this impact analysis considers the following County guideline:

- The project does not meet the emergency response objectives identified in the Safety Element of the County General Plan or offer feasible alternatives that achieve comparable emergency response objectives.

Analysis

The County Office of Emergency Services and the County Sheriff's Department have planned evacuation procedures based on the adopted General Plan and Emergency Operations Plan. The Emergency Operations Plan identifies implementation procedures for mutual aid and similar support during emergency situations such as wildfire. The Emergency Operations Plan also describes a comprehensive emergency management system that allows a planned response to emergency situations of different complexity levels and sizes. The Office of Emergency Services is responsible for notifying and alerting relevant agencies when a disaster occurs; coordinating the response efforts of all involved agencies; ensuring that resources are available and deployed during disasters; creating plans and procedures for disaster response and recovery; and developing and distributing preparedness materials to the public (County of San Diego 2025).

The project site is within locations designated RL-80 and SR-10 (County of San Diego 2011a). Policy S-7.3 of the Safety Element (County of San Diego 2021) requires that new development demonstrate that fire services can be provided within minimum travel times. The project site is classified as outlying (SR-10) with a travel time standard of 20 minutes and as desert/wilderness (RL-80) with a travel time standard greater than 20 minutes. The project site is within SDCFPD jurisdiction and has one fire station within a 5-minute drive time, two stations within a 10-minute drive time, and an additional- station within a 15-minute drive time (Figure 2.7-3 and Figure 2.7-4). Multiple fire stations—CAL FIRE, SDCFPD, and the Bureau of Indian Affairs Campo Reservation—are within the 20-minute travel time standard for SR-10 and thus also meet the requirement for RL-80 (see Appendix L).

SDCFPD Boulevard Station 47 is 1 mile from the project site and within a 5-minute drive time. The CAL FIRE White Star Station and the Campo Reservation Fire Protection District Station are both within 10-minute drive times, at 1.6 and 4.3 miles, respectively, and CAL FIRE Jacumba Station 43 is 5 miles from the project site with a drive time of 15 minutes. Two additional fire stations—CAL FIRE Campo Station 40 and SDCFPD Lake Morena Station 42—are just outside the 15-minute drive time. These stations are staffed for incident response with adequate apparatus and firefighting equipment. Additional SDCFPD, CAL FIRE, and U.S. Forest Service fire stations are in the vicinity beyond the 20-minute drive time and could provide emergency services in case additional firefighting resources are needed, as well as aerial support if needed. Therefore, the project meets the adequate firefighting resource requirements of the Safety Element of the General Plan (County of San Diego 2021).

Access to the project site would be provided via Jewel Valley Road. The site entrance would feature a manual swing gate and a sign with a lighted directory map and contact information. Additionally, emergency fire access would be provided via Tule Jim Lane which would feature a 24-foot gate. All entrance gates would feature fire authority–approved strobe light activation and a Knox Box key-operated switch to allow ease of access for emergency service providers. All internal access road surfaces within the project site would meet Class II road specifications, would be composed of decomposed granite (DG), and would be permeable to reduce fugitive dust and erosion in accordance with the County Code of Regulatory Ordinances (County Code) Section 87.428, Dust Control Measures, and San Diego Air Pollution Control District Rule 55, which regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions. All DG roads would be compacted and maintained in good condition.

During construction and decommissioning of the project, there would be personnel on-site and a potential increase in demand for emergency services. However, any increase in the regional population associated with project construction or decommissioning activities is expected to be temporary and minimal. Additionally, as part of **PDF-TR-1** (Traffic Control Plan [TCP]), the Applicant will establish procedures for coordinating with local emergency response agencies to ensure the dissemination of information regarding emergency response vehicle routes affected by construction and decommissioning activities. This would ensure that worker trips would not result in inadequate emergency access during construction or decommissioning. As such, the construction and decommission of the project would not impair the implementation of an adopted emergency response plan or emergency evacuation plan and would not result in a conflict with the Safety Element of the General Plan.

The proposed project would include a battery energy storage system (BESS) to store energy generated by the solar panel installations during operations. Phase I of the project would include a 17.4-megawatt (MW) BESS covering approximately 32,000 square feet, and Phase II would include a 200-MW BESS covering approximately 192,000 square feet. The BESS would consist of individual battery containers in cabinets, which would be double-loaded along a concrete foundation. Each BESS cabinet would have a 5-foot-wide access drive aisle. The entire BESS area would be fenced for security and to restrict access. Additional information regarding the specifications of the proposed BESS is provided in Chapter 1.0, Project Description, Location, and Environmental Setting.

As the installation and operation of the proposed BESS could result in the need for emergency response services in the area in the unlikely event of a battery fire. However, as the proposed project would be unoccupied and controlled remotely, the project would not contribute to congestion on roadways in the event that emergency responders need to access the project site. As such, operation of the project would not impair the implementation of the adopted Emergency Operations Plan and would not result in a conflict with the Safety Element of the General Plan.

Therefore, the project would result in a **less-than-significant impact** related to impairing implementation of an adopted emergency response plan or emergency evacuation plan or conflicts with the Safety Element of the General Plan.

2.7.3.3 Exacerbated Wildfire Risk

Guidelines for the Determination of Significance

This impact analysis considers the following guideline from the State CEQA Guidelines, Appendix G:

- Due to slope, prevailing winds, and other factors, exacerbates wildfire risks, and thereby exposes project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Analysis

The entire project site is within a CAL FIRE–designated High FHSZ. Fire has always been a part of the landscape in the area, as these are fire-prone ecosystems composed primarily of chaparral and grass. Fuels will readily burn when conditions are right and there is an ignition source. However, slope, prevailing winds, and other factors would not have a great influence on these potential sources of ignition. The project site is relatively flat. Prevailing winds in the area are moderate from the west-southwest; during Santa Ana wind events, winds can reach increased speeds and sustained gusts up to 30 or 40 miles per hour. Overall, the topography does not lend itself to increasing expected fire behavior—there is no significant terrain, and Santa Ana wind events are limited to certain times of the year when additional restrictions are put in place. Fires in flat terrain with fine fuels (grass and shrubs) are in large part wind-driven.

The project would increase human activities and the potential for ignitions during construction and decommissioning activities. These ignition sources may include mechanized equipment, vehicles, heavy equipment, and installation of electrical equipment. The project would remain generally unoccupied and would be operated remotely, which would limit the number of daily vehicle trips and also limit the introduction of ignition sources to the project site during operations. However, the project proposes the installation and operation of a BESS, which could increase the potential of a wildfire in the unlikely event of a battery fire during project operations.

The battery storage cabinets would be constructed on concrete pads, with the cabinets bolted to the pads. Each battery storage cabinet would be insulated, air-conditioned, and include fire suppression, with separate enclosures for the electronic controls, inverters, and rectifiers. There would be a built-in heat detection and fire protection system and an aerosol fire extinguishing system. The heat and fire detection system would be linked to an automatic inert gas suppression system within each cabinet. The cabinets would be situated to enable emergency response access but would not be walk-in containers; thus, the battery storage cabinets would be non-habitable structures per the state and local fire codes that would be in place at the time a building permit application is submitted to the County. With limited overhead power lines, the project would minimally affect suppression tactics taken by firefighting resources if a fire should start.

The BESS would be designed in accordance with applicable NFPA safety standards and would be compliant with the NFPA's Standard 855, which addresses the design, construction, installation, commissioning, operation, maintenance, and decommissioning of stationary ESSs. The system would also be designed in accordance with, and would satisfy all requirements of, the CFC and San Diego County Fire Department *Interim Fire Protection Guidelines for BESS Facilities*, as well as meet other applicable state and local requirements.

As the final selection of the lithium iron phosphate-based ESS technology remains in process, several preliminary studies (based upon an assumed technology) that are typically required for the completion of a CFC Section 1207.1.4, Hazard Mitigation Analysis, have been prepared for the proposed project and included in this EIR as the following appendices:

- Appendix O.1 Preliminary Battery Energy Storage System Fire Risk Assessment and Heat Flux Analysis (Hiller 2025a)
- Appendix O.2 Preliminary Battery Energy Storage System Failure Mode and Effects Analysis (Hiller 2025b)
- Appendix O.3 Preliminary Balance of Plant Fire Risk Assessment (Hiller 2025c)
- Appendix O.4 Preliminary Balance of Plant Failure Mode and Effects Analysis (Hiller 2025d)
- Appendix O.5 Preliminary Balance of Plant Hazard Mitigation Analysis (Hiller 2025e)
- Appendix O.6 Preliminary First Responders Guide (Hiller 2025f)

It should be noted that these preliminary analyses address the BESS, as well as the other components of the solar energy facility (referred to above as the "balance of plant"). These analyses will be finalized and updated when the BESS technology is selected and as part of the Construction Authorization Submittal.

Although the topography of the project site does not lend itself to increasing expected fire behavior, elevated weather conditions could increase the potential for an uncontrolled spread of wildfire during construction and decommissioning activities. Further, despite compliance with applicable standards, installation and operation of the proposed BESS could result in an increased potential of a wildfire in the unlikely event of a battery fire. Therefore, the project would have a **potentially significant impact** related to exacerbated wildfire risk (**Impact WF-1**).

2.7.3.4 Infrastructure Contribution to Wildfire Risk

Guidelines for the Determination of Significance

This impact analysis considers the following guideline from the State CEQA Guidelines, Appendix G:

- Requires 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.

Analysis

The project would construct extensive infrastructure associated with the solar facility, BESS, and substation interconnection. Design and construction of new structures within the project would meet all applicable standards and requirements of the 2023 CFC (County of San Diego 2023b), with special adherence to California Building Code requirements. However, as previously discussed, the project infrastructure would include a BESS, which could exacerbate fire risk in the unlikely event of a battery fire during installation or operations. Therefore, the project would result in a **potentially significant impact** related to the installation or maintenance of infrastructure that would exacerbate fire risk (**Impact WF-2**).

2.7.3.5 Exposure to Post-Fire Risk

Guidelines for the Determination of Significance

This impact analysis considers the following guideline from the State CEQA Guidelines, Appendix G:

- Exposes 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.

Analysis

The project site is located in the community of Boulevard, which is approximately 65 square miles and as of 2022 had a population of 1,673 (San Diego Association of Governments 2022). Surrounding land uses consist of single-family residences and vacant land.

The project site is predominately flat with some hilly slopes and drainages; steeper slopes and more substantial terrain are present outside the project site. As analyzed in Section 3.1.3, Geologic Hazards, Soils, and Paleontological Resources, the project site is not sited within a landslide-susceptible area. As noted in the *Preliminary Geotechnical Site Evaluation Report* (Bruin Geotechnical Services, Inc. 2022; see Appendix F), the project site is not within an area mapped for landslide hazards and is underlain by crystalline bedrock, which is not typically prone to substantial slope failure in areas that are not steeply sloped. Additionally, the grading plans for the project would comply with standards in the County Code Sections 87.101 through 87.905 (County Grading, Clearing, and Watercourses) addressing the stability, incline, and compaction of cuts and fills. During trenching and excavation, the project would be required to comply with Occupational Safety and Health Administration standards to protect slopes and prevent cave-ins and other hazards related to soil stability, such as landslides and rock falls.

The project would be generally unoccupied and operated remotely, and no habitable structures are proposed by the project. Furthermore, the project would be located in a generally low-density rural area, with few structures or population centers nearby. Therefore, the project would have a **less-than-significant impact** related to exposing people or structures to significant risks, including downslope flooding, landslides, runoff, and post-fire slope instability.

2.7.4 Cumulative Impact Analysis

The cumulative analysis for wildfire impacts was performed using the projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting. Cumulative projects in the area include several existing and proposed wind and solar renewable energy projects, and public facilities improvement projects, all located within the SDCFPD jurisdiction and the region surrounding Boulevard.

2.7.4.1 Cumulative, Emergency Response/Evacuation Plan

In addition to the proposed project, there are several other projects in the vicinity within SDCFPD jurisdiction at various stages of development. Each of these increases the potential for ignition not just during construction and maintenance, but continuously due to the installation of electrical equipment. The region is a fire-prone environment that readily burns if there is an ignition source. Multiple projects that could increase the potential for ignitions and which are situated at a distance from one another would increase the demand for firefighting resources and potentially increase drive times, should there be more than one ongoing fire. It is likely that the area will see continued increase in similar project development in the foreseeable future. Although the project would not introduce a new population to the project area or congest roadways, the project in combination with cumulative projects **would contribute to a cumulatively considerable impact** related to implementing the County's Emergency Operations Plan or the Safety Element of the General Plan (**Impact WF-CU-1**).

2.7.4.2 Cumulative, Exacerbated Wildfire Risk

As previously discussed, implementation of the project could increase the potential sources of ignition both during construction and maintenance activities and with the installation of electrical equipment. The project site is predominantly flat with limited rolling hills and drainages, making slope, wind, and other topographic features unlikely to exacerbate wildfire risks. However, notable geographic features, vegetation, and topography in the region and outside the project site, combined with high wind events, could result in increased fire behavior. There are multiple projects in the SDCFPD jurisdiction at various stages of development, making it likely that periods of construction and maintenance would overlap for projects in the analysis area. Being comparable in scope, these other projects would also increase potential sources of ignition in the project area. Thus, the project, in combination with cumulative projects, **would result in a cumulatively considerable impact** to wildfire risks (**Impact WF-CU-2**).

2.7.4.3 Cumulative, Infrastructure Contribution to Wildfire Risk

The project would include the construction of several primary components with accompanying utility structures. As previously discussed, operation of the BESS could result in an increase in the potential for wildfire ignitions in the unlikely event of a battery fire.

Other projects in the area are similar in nature, mostly solar and wind development projects, which also require accompanying utility structures and possibly BESS. Being comparable in scope, these other projects would also add infrastructure and electrical equipment to the project area, and some projects may also increase human activity in the project area. Thus, the project, in combination with cumulative projects, **would result in a cumulatively considerable impact** to wildfire risks from infrastructure (**Impact WF-CU-3**).

2.7.4.4 Cumulative, Exposure to Post-Fire Risks

The project would have a less-than-significant impact related to post-fire effects, due to the stable, relatively flat land that composes the site. Although there are notable geographic features in the region, the analysis area is not a landslide-susceptible area. In addition, the project would be generally unoccupied and operated remotely, and no habitable structures are proposed by the project. Fire behavior within each project site would be moderated by project design features and required compliance with local, state, and federal regulations related to flooding and slope stability. Thus, the project, in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to the exposure of people or structures to significant risks, including flooding or landslides.

2.7.5 Significance of Impacts Prior to Mitigation

2.7.5.1 Emergency Response/Evacuation Plan

The project site is within SDCFPD jurisdiction and has one fire station within a 5-minute drive time, two stations within a 10-minute drive time, and an additional station within a 15-minute drive time (Figure 2.7-3 and Figure 2.7-4). During construction and decommissioning of the project, there would be personnel on-site and a potential increase in demand for emergency services. However, any increase in the regional population associated with project construction or decommissioning activities is expected to be temporary and minimal. Additionally, as part of **PDF-TR-1** (TCP), the Applicant will establish procedures for coordinating with local emergency response agencies to ensure the dissemination of information regarding emergency response vehicle routes affected by construction and decommissioning activities. This would ensure that worker trips would not result in inadequate emergency access during construction or decommissioning.

Although the proposed project includes a BESS that could result in an increased demand for emergency services in the area in the unlikely event of a battery fire, the project would be generally unoccupied and would not congest roadways such that response times would be delayed. Therefore, the project would result in a **less-than-significant impact** related to impairing implementation of an adopted emergency response or evacuation plan or conflicts with the Safety Element of the General Plan.

2.7.5.2 Exacerbated Wildfire Risk

The project would increase human activities and the potential for ignitions during construction and decommissioning activity. These ignition sources may include mechanized equipment, vehicles, heavy equipment, and installation of electrical equipment. Further, the project proposes the installation of a BESS, which could increase the potential of a wildfire in the unlikely event of a battery fire. Therefore, the project would have a **significant impact** related to exacerbated wildfire risk (**Impact WF-1**).

2.7.5.3 Infrastructure Contribution to Wildfire Risk

The project would include the construction of several primary components with accompanying utility structures. As previously discussed, construction and decommissioning activities could potentially increase fire risk at the project site. Further, BESS operation could result in an increase in the potential for wildfire ignition at the project site in the unlikely event of a battery fire. Therefore, the project would have a significant impact related to infrastructure that would exacerbate fire risk (**Impact WF-2**).

2.7.5.4 Exposure to Post-Fire Risks

As analyzed in Section 3.1.3, Geologic Hazards, Soils, and Paleontological Resources, the project site is not sited within a landslide-susceptible area. The project would also be generally unoccupied and operated remotely, and no habitable structures are proposed by the project. Therefore, the project would have a **less-than-significant impact** related to exposing people or structures to significant risks, including downslope flooding, landslides, runoff, and post-fire slope instability.

2.7.6 Mitigation Measures and Project Design Features

2.7.6.1 Mitigation Measures

Mitigation measures **M-WF-1** through **M-WF-6** would mitigate potential impacts under **Impact WF-1** and **WF-2** and **Impacts WF-CU-1** through **WF-CU-3** as follows.

M-WF-1 **Fire Protection Plan**. The following items ensure adequate fire mitigation, access, and safety:

1. Six 10,000-gallon water tanks shall be available on-site: one tank shall be at each of the two entrances and one tank shall be located by each battery energy storage system (BESS); the other two shall be spread strategically across the project site. Each tank shall be labeled "Fire Water: 10,000 gallons" with reflective paint. All tanks shall have fire department connections available and a minimum 250-gallon-per-minute flow.
2. Increased road width near water storage tanks shall accommodate filling without blocking the road.
3. A Knox Box shall be placed at every gated project entrance to allow emergency service resources to access the site.
4. A lighted map identifying equipment and structures shall be available at every project entrance.
5. The project has adequate emergency response according to land use designation, ensured with a Fire Services Agreement.
6. There shall be a built-in heat detection and fire protection system and a fire extinguishing system for each BESS in compliance with NFPA Standard 855. The heat and fire detection system shall be linked to an automatic inert gas suppression system within each cabinet. The cabinets shall also have an interior aerosol fire suppression system.
7. An internal perimeter road with an improved width of 24 feet, and internal roads improved to 20 feet and the capability to handle a weight of 75,000 pounds, designed to accommodate fire apparatuses with an inner turning radius of 28 feet, shall provide essential access infrastructure.

M-WF-2 **Fuel Modification Zones**. Fuel Modification Zones (FMZs) shall be implemented and maintained as follows:

1. An FMZ for each phase of the project shall be in place before any combustible material is brought on-site.

2. Designated areas shall be mowed, brushed, chipped, or otherwise reduced to a vegetation height of less than 6 inches. Material may remain on-site, as long as it is spread out to a depth of no more than 6 inches. Alternative methods of vegetation control include manual removal, herbicide application, prescribed herbivory, or installation of weed barriers in certain areas, such as beneath the PV modules.
3. A 30-foot FMZ around the perimeter between the fence line and internal perimeter road shall reduce vegetation to less than 6 inches and be regularly maintained.
4. Vegetation shall be maintained to 10 feet on either side of every interior access road, ensuring minimum unobstructed vertical clearance of 13 feet and 6 inches.
5. A 100-foot FMZ around each BESS shall reduce vegetation to less than 6 inches in height and be regularly maintained.
6. A 30-foot FMZ around the collector substation pad shall reduce vegetation to less than 6 inches in height and be regularly maintained.
7. Vegetation under PV modules shall be maintained to a vertical height of no more than 6 inches.
8. Vegetation within the 14 internal open space easements shall be maintained to a vertical height of no more than 6 inches.

M-WF-3 **Battery Energy Storage System Measures**. The following measures shall be incorporated to reduce wildfire risk to the BESS and to reduce spread potential from a fire starting in the BESS:

1. Each BESS shall be constructed on concrete pads and enclosed.
2. Each unit shall be separated by a drive aisle for easy access.
3. Automatic internal heat detecting system shall be linked to an inert gas system.
4. Each BESS shall have an internal aerosol suppression system that is regularly tested and maintained.
5. A 100-foot FMZ will surround each BESS to further reduce risk of fire spread.

M-WF-4 **Construction Fire Protection Plan**. The following shall be implemented based on the FPP guidance (see Appendix L):

1. An FMZ for each phase of the project shall be in place before any combustible material is brought on-site.
2. Continual training in fire prevention, communication, and fire reporting shall be provided to all on-site personnel.
3. Smoking shall be limited to designated areas that are free of vegetation and combustible materials for a minimum 30-foot distance.
4. Two water tenders (at least 3,000 gallons each) shall remain on-site until project water supply tanks are installed.
5. Two water tank trucks (at least 300 gallons each) shall remain on-site during construction and shall be within 0.25 mile of active construction areas.
6. Daily fire risk briefings shall be held with all on-site personnel.
7. Hot work shall be done under supervision in an approved area.

8. All motors on-site shall be equipped with a spark arrestor by the manufacturer.
9. Evacuation routes shall be maintained and cleared; these routes shall never be used as parking spaces.
10. Spills of combustible, hazardous, or potentially dangerous materials shall be cleaned up immediately.
11. Electrical equipment shall be unplugged when not in use, and there shall be no "jerry rigging" of extension cords.
12. All extension cords shall be rated appropriately for the work and properly grounded.
13. All vehicles shall carry, at a minimum, an approved fire extinguisher and shovel.
14. All equipment and vehicles shall be properly maintained.
15. A cache of firefighting tools and water shall be at the main staging area or at another location approved by the Site Safety Officer.

M-WF-5 **Red Flag Warning Measures**. During Red Flag Warnings the following precautions shall be taken:

1. No hot work shall be conducted during Red Flag Warnings.
2. No vehicle shall be permitted to drive over vegetation; vehicles must remain on roads or areas that are devoid of flammable vegetation.
3. "Red Flag" signage shall be displayed at the project main gate and construction office on days when the warning is issued.

M-WF-6 **Fire Protection and Mitigation Agreement.** As a condition to providing service and pursuant to the Safety Element of the General Plan, the Applicant shall enter into a Fire Protection and Mitigation Agreement with the San Diego County Fire Protection District (SDCFPD) prior to approval of a Major Use Permit to make a fair share contribution toward local emergency response capabilities. The funding shall be used by the SDCFPD to mitigate risks of wildfires and to enhance fire suppression and emergency services capabilities for the proposed project and the southeast portion of CSA 135.

2.7.6.2 Project Design Features

The Applicant has identified and committed to including the following project design features as part of the project to alleviate adverse wildfire effects, to the extent feasible.

PDF-TR-1 **Traffic Control Plan.** Prior to obtaining a grading permit from the County of San Diego, the Applicant will implement a construction Traffic Control Plan (TCP) that includes the following measures:

1. Temporary traffic control devices in accordance with the California Department of Transportation's (Caltrans) California Manual on Uniform Traffic Control Device to identify locations/sections where construction is ongoing. This may include slow-moving-vehicle warning signs, signage to warn of merging trucks, barriers for separating construction and non-construction traffic, use of traffic control flaggers, and any additional measures required for the sole convenience of safely passing non-construction traffic (including transit, bicyclists, and pedestrians) through and around construction areas.

2. Coordination with Caltrans to secure the necessary encroachment and trip permits necessary for specialized haul trucks. Also, any excessive height/length vehicles should use pilot car services to provide safe over-the-road operations and overhead height warnings, if necessary.
3. Notification of the California Highway Patrol, if necessary, to facilitate slowing freeway traffic to ensure safe access for motorists.
4. Coordination with Caltrans, California Highway Patrol, and County officials, including the Sheriff's department. For the State Highway System, Caltrans requires a TCP to be submitted to District 11's Transportation Permits Issuance Branch at least 30 days prior to the start of any construction.
5. Employment of a contract transport company that will be responsible for surveying the route to determine how turns on existing roads will be accomplished and ensuring that is reflected in the TCP.
6. Establishment of procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities.

2.7.7 Conclusion

2.7.7.1 Emergency Response/Evacuation Plan

The project site is within the SDCFPD jurisdiction. There is one fire station within a 5-minute drive time, two stations within a 10-minute drive time, and an additional station within a 15-minute drive time, providing adequate firefighting capabilities. During construction and decommissioning of the project, there would be personnel on-site and a potential increase in demand for emergency services. However, any increase in the regional population associated with project construction or decommissioning activities would be temporary and minimal. Additionally, as part of **PDF-TR-1** (TCP), the Applicant will establish procedures for coordinating with local emergency response agencies to ensure the dissemination of information regarding emergency response vehicle routes affected by construction and decommissioning activities. This would ensure that worker trips would not result in inadequate emergency access during construction or decommissioning.

The proposed project includes a BESS, which could result in an increased demand for emergency services in the area in the unlikely event of a battery fire during operations. However, the project would remain generally unoccupied during operations and would be operated remotely. Therefore, the project would not increase congestion on roadways thereby slowing emergency response to the project site or surrounding areas. Further, the project would not interfere with the adopted Emergency Operations Plan.

Therefore, impacts related to emergency response, emergency evacuation, and Safety Element of the County General Plan conflicts would be **less than significant.**

2.7.7.2 Exacerbated Wildfire Risk

The project would increase human activities and the potential for ignitions during construction and decommissioning activity. These ignition sources may include mechanized equipment, vehicles, heavy equipment, and installation of electrical equipment. Further, the project proposes installation of a BESS, which could potentially increase the potential of a wildfire in the unlikely event of a battery fire (**Impact WF-1**). However, the project would implement the following mitigation measures to reduce exacerbated wildfire risks.

M-WF-1 requires the implementation of numerous risk reduction measures to ensure adequate fire mitigation, internal project site access, and safety during construction, operation, and decommissioning activities. **M-WF-2** would require the implementation and maintenance of FMZs, which would reduce wildfire risks during project operations. **M-WF-3** requires the incorporation of safety measures that would reduce fire risk at the BESS and would reduce the spread potential from a fire starting in the BESS. **M-WF-4** requires the implementation of a Construction Fire Protection Plan, which would reduce wildfire ignition risk during construction and decommissioning activities. **M-WF-5** outlines precautions during elevated weather conditions to minimize the potential of uncontrolled spread of a wildfire. Lastly, **M-WF-6** requires the Applicant to enter into a Fire Protection and Mitigation Agreement with the SDCFPD to make a fair share contribution toward local emergency response capabilities (see Appendix P). These measures are consistent with the recommendations of the comprehensive FPP and applicable fire codes (see Appendix L). The FPP provides fire behavior modeling for on-site and off-site fuels, including under worst-case-scenario conditions. The results from the modeling would provide guidance for design and measures to lessen the threat of and hazards from ignitions and wildfires, including specifically during construction activities.

Therefore, implementation of mitigation measures **M-WF-1** through **M-WF-6** would reduce the risk of exacerbated wildfires to a **less-than-significant** level.

2.7.7.3 Infrastructure Contribution to Wildfire Risk

The project would include the construction of several primary components with accompanying utility structures. As previously discussed, construction and decommissioning activities would increase fire risk at the project site. Further, operation of the BESS could result in an increase in the potential for wildfire ignition in the unlikely event of a battery fire (**Impact WF-2**). However, the project would implement the mitigation measures **M-WF-1** through **M-WF-6**, identified in the FPP and described above, to reduce impacts associated with the installation or maintenance of infrastructure that would contribute to wildfire risk to a **less-than-significant** level.

2.7.7.4 Exposure to Post-Fire Risk

The project site is predominately flat with some hilly slopes and drainages, and it is not within an area mapped for landslide hazards. The project is required to comply with local, state, and federal regulations related to flooding and slope stability. In addition, the project would be generally unoccupied and operated remotely, and no habitable structures are proposed by the project. Therefore, the project would have a **less-than-significant impact** related to exposing people or structures to significant risks, including downslope flooding, landslides, runoff, and post-fire slope instability.

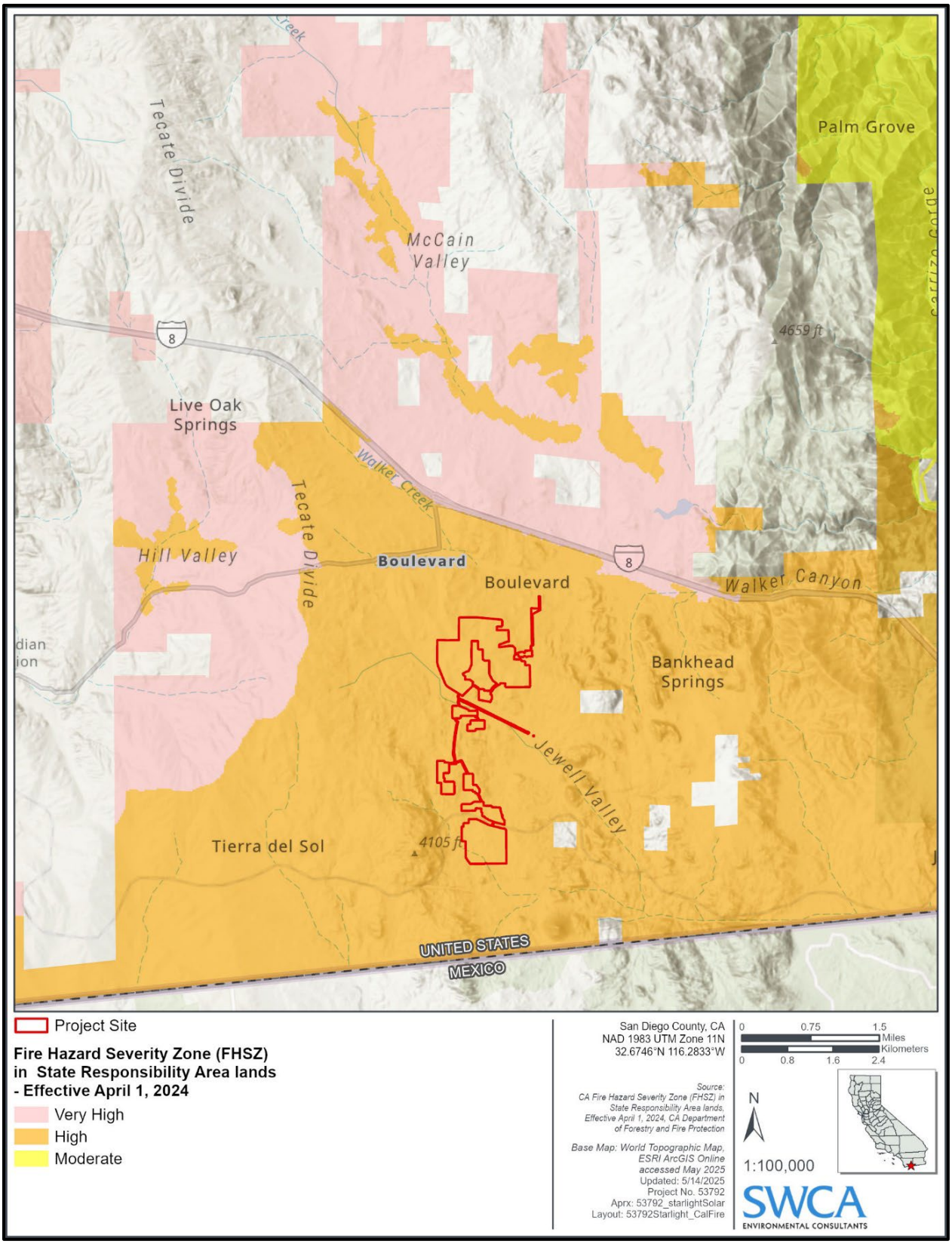

Figure 2.7-1. CAL FIRE–designated Fire Hazard Severity Zones in the Project Area

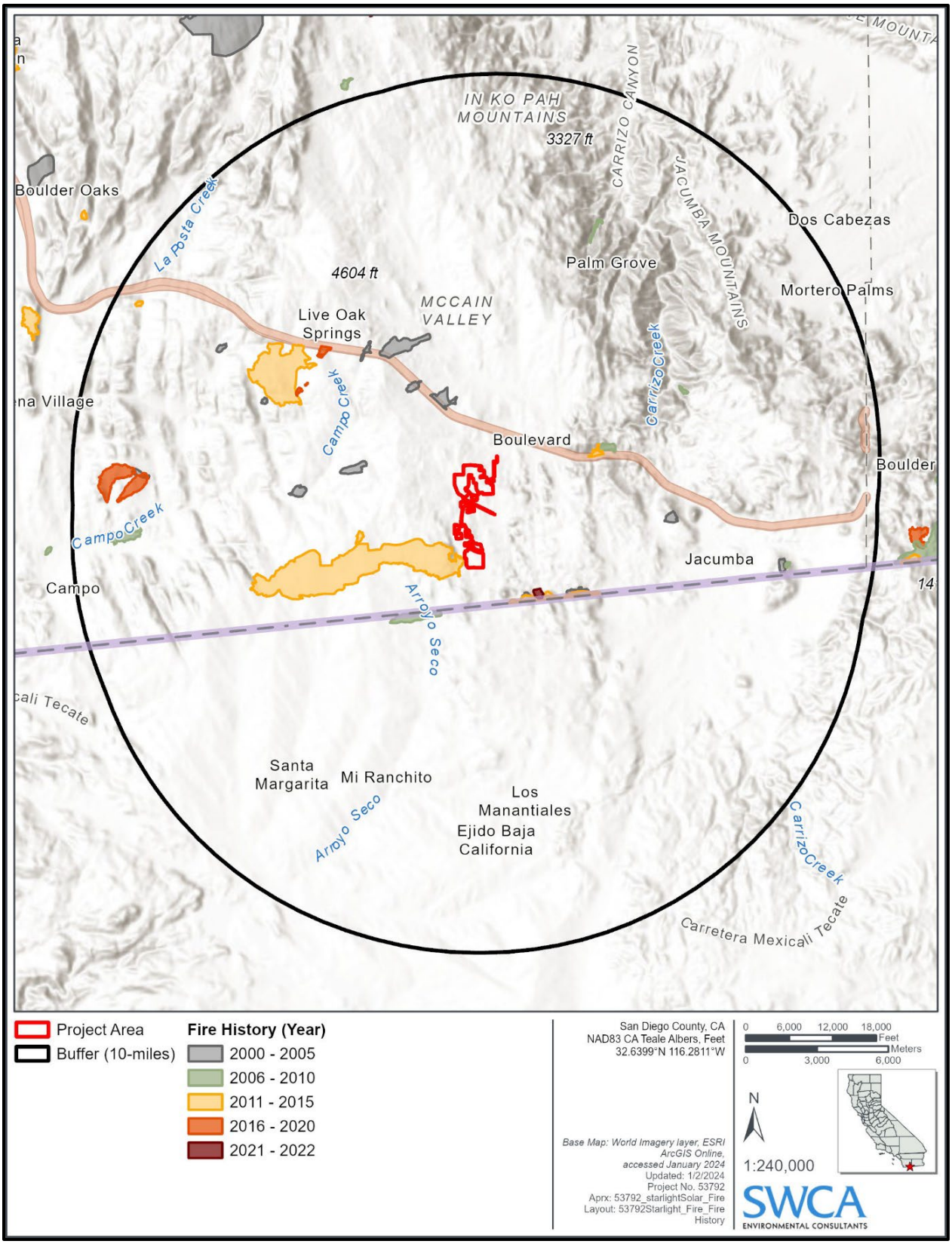

Figure 2.7-2. Fire History within 10 Miles of the Project Site

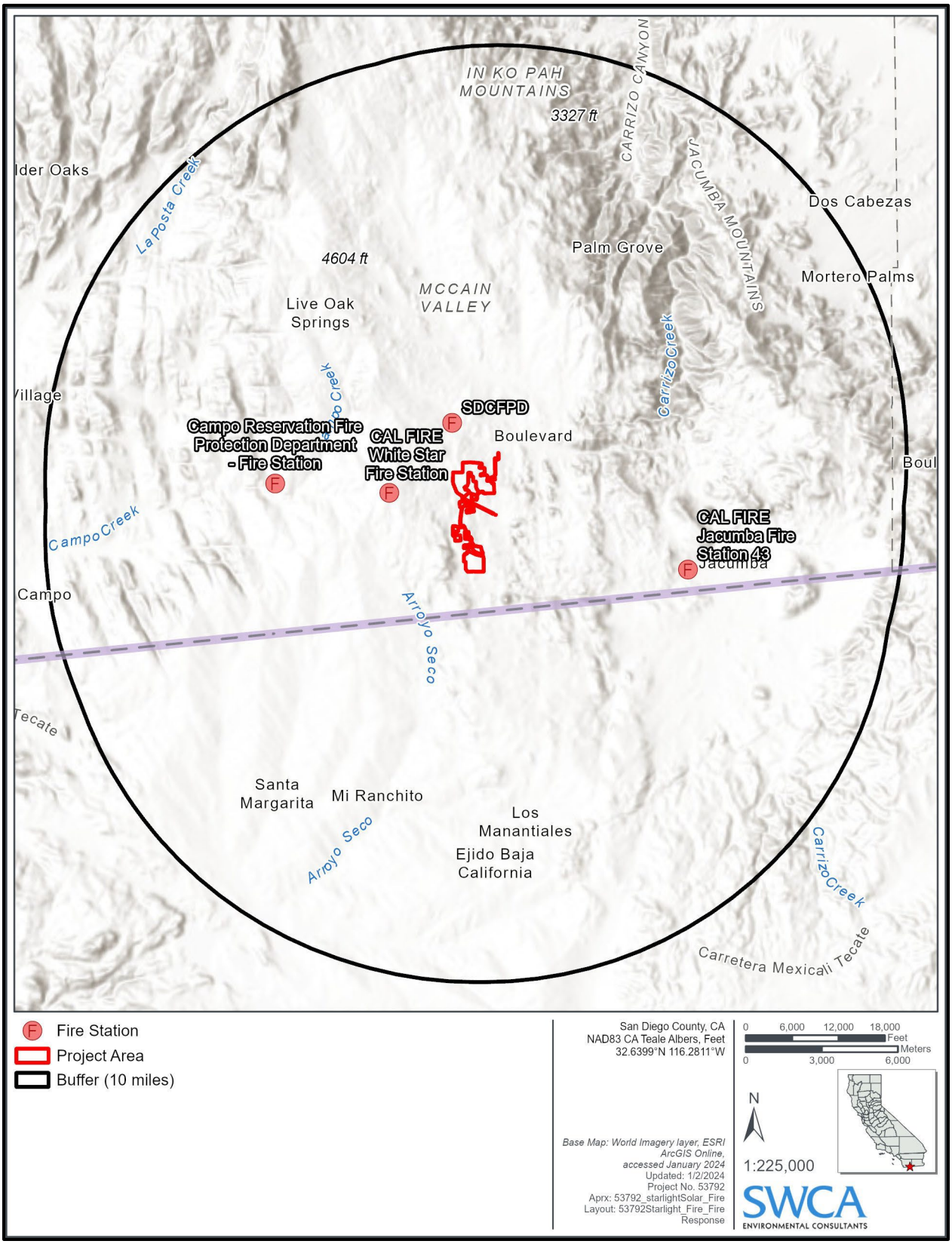

Figure 2.7-3. Fire Stations in the Project Vicinity

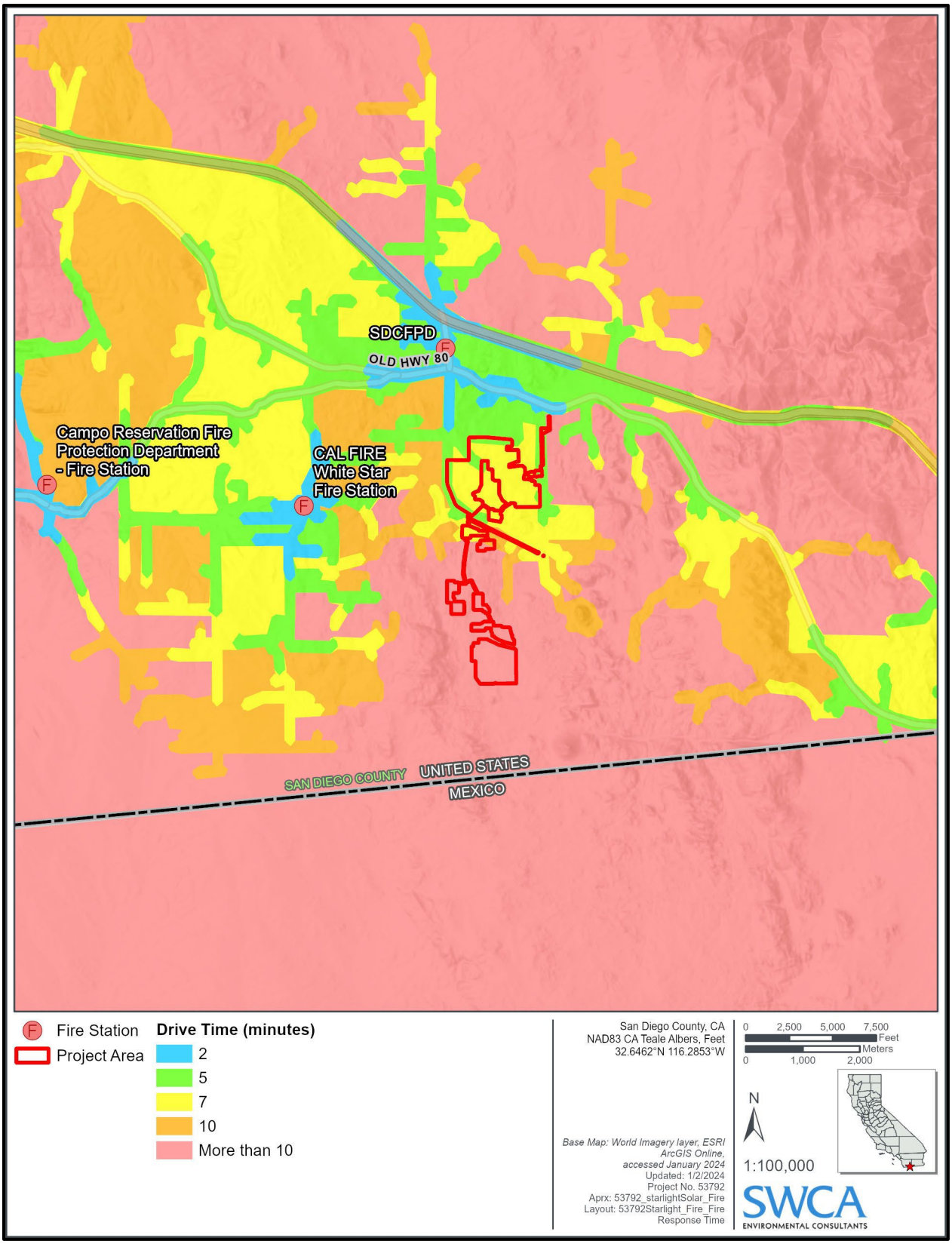

Figure 2.7-4. Fire Stations within a 10-minute Drive Time to the Project Area

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CHAPTER 3.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

3.1 Effects Found Not Significant as Part of the EIR Process

According to the California Environmental Quality Act (CEQA) Guidelines, an environmental impact report (EIR) shall focus on the significant effects on the environment (14 California Code of Regulations [CCR] 15143). An EIR shall therefore contain a statement indicating the reasons various possible significant effects were not found significant and not discussed in detail (14 CCR 15128). The following environmental areas were found to be not significant during the EIR process:

- Air Quality (Section 3.1.1)
- Energy (Section 3.1.2)
- Geologic Hazards, Soils, Paleontological Resources (Section 3.1.3)
- Greenhouse Gas Emissions (Section 3.1.4)
- Hazards and Hazardous Materials (Section 3.1.5)
- Land Use and Planning (Section 3.1.6)
- Mineral Resources (Section 3.1.7)
- Public Services (Section 3.1.8)
- Transportation and Traffic (Section 3.1.9)
- Utilities and Service Systems (Section 3.1.10)

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3.1.1 Air Quality

This section of the Environmental Impact Report (EIR) discusses potential impacts to air quality resources resulting from the implementation of the proposed project. The analysis is based on the existing ambient air quality of the San Diego Air Basin (SDAB), the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies, which were prepared for the project in accordance with *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Air Quality* (County of San Diego 2007), the *Final 2024 Climate Action Plan* (2024 CAP) (County of San Diego 2024a) and the *2024 CAP Consistency Checklist and Guidelines for Determining Significance for Climate Change* (County of San Diego 2024b):

- *Starlight Solar Air Quality and Greenhouse Gas Technical Study* (Yorke Engineering, LLC 2024a) (Appendix H.1 of this EIR)
- *Starlight Solar Project – Air Quality and Greenhouse Gas Technical Study Memorandum – Project Design Update* (Yorke Engineering, LLC 2024b) (Appendix H.2 of this EIR)
- *2024 Climate Action Plan Consistency Review Checklist for Starlight Solar* (SWCA Environmental Consultants [SWCA] 2025) (Appendix H.3 of this EIR)
- *Starlight Solar Project – Air Quality and Greenhouse Gas Technical Study Memorandum – Fugitive Dust Control Measures Update* (Yorke Engineering, LLC 2025) (Appendix H.4 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding emissions associated with project construction and operation, impacts to sensitive receptors, adverse effects to the community's health, use of diesel-powered equipment, possible toxic emissions during a potential battery fire, and the potential for the project to conflict with the San Diego Regional Air Quality Strategy. These concerns are addressed in this section of the EIR, where applicable, and within the Air Quality and Greenhouse Gas Technical Study (Appendix H.1). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.1.1 Existing Conditions

The project site is in San Diego County, south of Interstate 8 (I-8) and Old Highway 80 and east of Tierra Del Sol Road. Regional access to the project site would be provided by two highways, State Route 94 and I-8. Local access to the project site would be provided by Jewel Valley Road and, in emergencies, Tule Jim Lane, each of which connect to Old Highway 80 in the unincorporated community of Boulevard. The San Diego Gas and Electric Boulevard substation is to the north of the project site.

The project site is within the SDAB and is subject to the San Diego Air Pollution Control District's (SDAPCD) guidelines and regulations. The SDAB is in the southwest corner of California, which covers approximately 4,260 square miles, and comprises the entire San Diego region. The primary factors that determine air quality are the locations of air pollutant sources and the amounts of pollutants emitted. Meteorological and topographical conditions such as wind speed and direction, air temperature gradients, sunlight, and precipitation and humidity interact with physical landscape features to determine the movement and dispersal of criteria air pollutants.

Regional Climate and Meteorological Conditions

The boundaries of the SDAB are contiguous with the political boundaries of San Diego County. The climate of the SDAB, as with all of Southern California, is largely dominated by the strength and position of the semi-permanent high-pressure system over the Pacific Ocean, known as the Pacific High. This high-

pressure ridge over the West Coast often creates a pattern of late-night and early-morning low clouds, hazy afternoon sunshine, daytime onshore breezes, and little temperature variation year-round. San Diego County is classified as having a Mediterranean climate with warm, dry summers and mild, normally wet winters. Average annual precipitation ranges from approximately 10 inches on the coast to over 30 inches in the mountains to the east (the desert regions of San Diego County generally receive between 4 and 6 inches per year). However, recent drought conditions have resulted in below normal rainfall throughout the region.

The Mediterranean climate of San Diego County also works to create air pollution problems. Sinking or subsiding air from the Pacific High creates a temperature inversion, known as a subsidence inversion, which acts as a lid to inhibit vertical dispersion of pollutants. Weak summertime pressure gradients further limit horizontal dispersion of pollutants in the mixed layer below the subsidence inversion. Poorly dispersed anthropogenic emissions of nitrogen oxides (NO_X) and volatile organic compounds (VOC) combined with strong sunshine (ultraviolet light) leads to photochemical reactions, which result in the formation of ozone (O_3), nitrogen dioxide (NO_2), and other photochemical oxidants at this surface layer.

Daytime onshore flow (i.e., sea breeze) and nighttime offshore flow (i.e., land breeze) are common in Southern California. The sea breeze helps to moderate daytime temperatures in the western portion of San Diego County, which greatly adds to the climatic draw of the region. This also leads to emissions being blown out to sea at night and returning to land the following day. Under certain conditions, this diurnal atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County, which often results in high O_3 concentrations being measured at ambient air monitoring stations operated by the County of San Diego (County). Transport of air pollutants from Los Angeles to San Diego has also been shown to occur aloft within the stable layer of the elevated subsidence inversion. In this layer, removed from fresh emissions of NO_X (which would scavenge and reduce O_3 concentrations), high levels of O_3 are transported into San Diego County.

Criteria Pollutants and Effects

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of specific pollutants in order to protect public health and welfare. These pollutants are commonly known as “criteria” pollutants because their standards are based on certain “criteria” regarding impacts to health and human welfare. The federal standards, established by the U.S. Environmental Protection Agency (EPA) pursuant to the federal Clean Air Act (CAA) and subsequent amendments, are termed the National Ambient Air Quality Standards (NAAQS). The NAAQS, other than for O_3 and those based on annual averages, are maximum acceptable concentrations not to be exceeded more than once per year. The annual NAAQS may never be exceeded. The O_3 standard is not to be exceeded more than the state standards, which are established by the California Air Resources Board (CARB) and termed the California Ambient Air Quality Standards (CAAQS). The CAAQS are defined as the maximum acceptable pollutant concentrations that are not to be equaled or exceeded, depending on the specific pollutant.

NAAQS have been established for seven pollutants, specifically O_3, respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide (CO), NO_2, lead (Pb), and sulfur dioxide (SO_2). In addition, CAAQS have been established for sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility reducing particles (VRPs). These pollutants are discussed in the following paragraphs.

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 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 ozone) and at the Earth's surface in the troposphere (ozone). The O_3 regulated by the EPA and CARB 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) can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (see Appendix H.1). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, 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 nitrous oxide (N_2O), 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 both 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.

Carbon Monoxide

CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent. 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. 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}) 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 and waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) 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-sized particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility. People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly 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 $PM_{2.5}$ and PM_{10}.

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 (IQ) performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Volatile Organic Compounds

VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the State of California as toxic air contaminants (TACs). Although there are no specific VOC ambient air quality standards, VOC is a prime component (along with NO_x) of the photochemical processes by which such criteria pollutants as O_3, NO_2, and certain fine particles are formed. They are thus regulated as "precursors" to the formation of those criteria pollutants.

Valley Fever

Valley fever (coccidioidomycosis) is an illness caused by the inhalation of soil dwelling Coccidioides (*Coccidioides* sp.) fungus spores, which live in the top 2 to 12 inches of soil in many parts of California, most prevalently in the Central Valley and in desert/dry areas (California Department of Public Health [CDPH] 2013). When soil containing this fungus is disturbed by activities such as digging or vehicular driving, or by the wind, the fungal spores become airborne and can be inhaled. Valley fever is not transmitted directly from person to person.

Valley fever can be serious and even fatal. In California, more than 1,000 people are hospitalized every year, of which about 1 in 10 have died in the hospital (CDPH 2023a). Many people who are exposed to the Coccidioides fungus spores never have symptoms, while others may have cold or flu-like symptoms that usually go away on their own after several weeks to months. Numerous mild cases of valley fever likely go undiagnosed. Valley fever usually infects the lungs and can cause flu-like symptoms or pneumonia. Some people with valley fever may develop severe disease, which may require hospitalization. In rare cases, the infection can spread beyond the lungs to other parts of the body (this is called disseminated valley fever) or be fatal (CDPH 2022).

Valley fever is considered endemic in California, with cases in California tripling from 2014 through 2018. From 2018 through 2022, between 7,000 and 9,000 cases were reported each year (CDPH 2023a). According to the CDPH, the number of reported incidences of valley fever in California in 2019 was the highest annual incidence reported in California since coccidioidomycosis became individually reportable in 1995. There were 9,090 cases reported in 2019, with an incidence rate of 22.9 cases per 100,000 population. This is a 159% increase of incidence of coccidioidomycosis since 2013 (3,329 cases, or 8.7 per 100,000 population) (CDPH 2023b). Valley fever is considered highly endemic in counties where incidence rates are greater than 20 per 100,000 population. The number of incidences has also significantly increased in San Diego County, from 113 cases and an incidence rate of 3.5 per 100,000 in 2015 to 415 cases and an incidence rate of 12.7 per 100,000 in 2021 (CDPH 2023b).

Other Criteria Pollutants

Sulfates. Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere. Sulfates can result in respiratory impairment, as well as reduced visibility.

Vinyl Chloride. Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

Hydrogen Sulfide. H_2S is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of H_2S include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to H_2S can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

Local Air Quality

The SDAPCD is responsible for enforcing the rules and regulations protecting air quality. As part of this responsibility, the SDAPCD has created a strategy that lays out a program for attaining the standards for O_3. The strategy, called the County Regional Air Quality Strategy (RAQS), outlines the SDAPCD's plans, and control measures designed to attain the CAAQS for O3. The 2022 RAQS contains strategies to continue

directly reducing emissions of ozone precursors in San Diego County and assist in reducing PM_{10} and $PM_{2.5}$ and greenhouse gases (GHGs) as a co-benefit. Consistent with the SDAPCD's recent reorganization pursuant to Assembly Bill (AB) 423, the 2022 RAQS also proposes to expand the SDAPCD's involvement as a regional agency within its regulatory authority, by including commitments to support research and innovation opportunities, developing new partnerships with public and private entities, convening more opportunities for engagement and education with stakeholders, and integrating environmental justice and equity into all SDAPCD actions (County of San Diego 2022a).

In addition, the SDAPCD's federally enforceable control measures for O_3 precursors are included in the State Implementation Plan (SIP), which is adopted by CARB to ensure attainment of the O_3 NAAQS. These plans accommodate emissions from all sources, including natural sources. Through the implementation of control measures on stationary sources, as well as through the control measures applied to mobile sources by CARB and EPA, these plans focus on attaining the standards for the SDAB. However, the RAQS and the SIP do not address impacts from sources of PM_{10} or $PM_{2.5}$, although the SIP does include control measures (rules) to regulate stationary source emissions of those pollutants.

The 2023 RAQS relies on mobile source (vehicular) information from the San Diego Association of Governments (SANDAG), as well as information regarding projected growth in San Diego County, to determine what strategies are necessary for the reduction of stationary source emissions through regulatory controls. Since the SDAPCD only regulates non-mobile (stationary) sources, only the stationary source control measures identified in the RAQS and SIP have been incorporated by the SDAPCD into regulations. The stationary source rules are developed to set limits on the amounts of emissions from various types of industrial and commercial sources and/or require specific emission control technologies. Following rule adoption, a permit system is used to require air pollution controls on non-exempt new and modified stationary sources and to ensure compliance with regulations by prescribing specific operating conditions, monitoring, recordkeeping, reporting, emissions testing, etc. Stationary sources are inspected by the SDAPCD on a regular basis to ensure compliance with all emissions, maintenance, and operating requirements.

Air Quality Monitoring Data

The EPA designates all areas of the United States as having air quality better than or meeting the NAAQS ("attainment"), worse than the NAAQS ("nonattainment"), or ("unclassified") in areas where insufficient data exist. A nonattainment designation means that a primary NAAQS has been exceeded in a given area pursuant to a designated schedule depending on the pollutant. Pollutants in an area are often designated as unclassified when there is insufficient ambient air monitoring data for the EPA to statistically determine attainment status. Just as the EPA designates air basins as being in attainment or nonattainment of the NAAQS, CARB designates areas of the state as either in attainment or nonattainment of the CAAQS. An area is deemed as being in nonattainment if a primary NAAQS or CAAQS has been exceeded in a given area per a designated schedule depending on the pollutant, as determined from monitoring data.

San Diego County is presently designated a moderate nonattainment area for the NAAQS for O_3 and is also a nonattainment area for the CAAQS for O_3, PM_{10}, and $PM_{2.5}$. As such, the greatest concern involving criteria pollutants is whether a project would result in a cumulatively considerable net increase of PM_{10} or $PM_{2.5}$ or exceed screening-level criteria thresholds for O_3 precursors (NO_X and VOCs).

The SDAPCD currently operates eight ambient air monitoring stations located throughout the region to measure concentrations of criteria pollutants to determine whether the ambient air quality meets NAAQS and CAAQS. The ambient air monitoring sites and target criteria pollutants measured are as follows (County of San Diego 2022b, 2022c):

- Camp Pendleton (CMP) – O_3, NO_2
- Rancho Carmel Drive (RCD) – NO_2, CO, $PM_{2.5}$
- Kearny Villa Road (KVR) – O_3, NO_2, $PM_{2.5}$
- Alpine (ALP) – O_3, NO_2
- Lexington Elementary School (LES) – O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$
- Sherman Elementary School (SES) – O_3, NO_2, $PM_{2.5}$
- Chula Vista (CVA) – O_3, NO_2, PM_{10}, $PM_{2.5}$
- Donovan (DVN) – O_3, NO_2, PM_{10}

Ambient concentrations of target criteria pollutants measured in 2022 at these SDAPCD monitoring stations are presented in Table 3.1.1-1. A complete listing of the current attainment status by pollutant for the SDAB is shown in Table 3.1.1-2, and the NAAQS/CAAQS are provided in Table 3.1.1-3.

Table 3.1.1-1. San Diego County Local Ambient Air Quality Data for 2022

Unit	Averaging Time	AAQS	Monitoring Station							
			CMP	RCD	KVR	ALP	LES	SES	CVA	DVN
Ozone (O_3)										
ppm	Maximum 1 hour concentration	State: 0.09	0.08	–	0.10	0.10	0.10	0.09	0.08	0.11
ppm	Maximum 8-hour concentration	State: 0.070 Federal: 0.070	0.067	–	0.083	0.088	0.088	0.063	0.066	0.076
Nitrogen Dioxide (NO_2)										
ppm	Maximum 1-hour concentration	State: 0.18 Federal: 0.100	0.050	0.056	0.051	0.030	0.036	0.053	0.052	0.064
ppm	Annual concentration (average)	State: 0.030 Federal: 0.053	0.005	0.015	0.008	0.003	0.008	0.010	0.009	0.007
Carbon Monoxide (CO)										
ppm	Maximum 1-hour concentration	State: 20 Federal: 35	–	2.2	–	–	1.5	–	–	–
ppm	Maximum 8-hour concentration	State: 9.0 Federal: 9	–	1.2	–	–	1.1	–	–	–
Sulfur Dioxide (SO_2)										
ppm	Maximum 1-hour concentration	Federal: 0.075	–	–	–	–	0.001	–	–	–
ppm	Maximum 24-hour concentration	Federal: 0.140	–	–	–	–	0.000	–	–	–
ppm	Annual concentration (average)	Federal: 0.030	–	–	–	–	0.000	–	–	–
Coarse Particulate Matter (PM_{10})										
µg/m^3	Maximum 24-hour concentration	State: 50 Federal: 150	–	–	–	–	44	–	38	243
µg/m^3	Annual concentration (average)	State: 20	–	–	–	–	22.0	–	22.9	52.4

Unit	Averaging Time	AAQS	Monitoring Station							
			CMP	RCD	KVR	ALP	LES	SES	CVA	DVN
Fine Particulate Matter ($PM_{2.5}$)										
$\mu g/m^3$	Maximum 24-hour concentration	Federal: 35	–	14.9	13.9	–	26.4	18.1	16.2	–
$\mu g/m^3$	Annual concentration (average)	State: 12 Federal: 12.0	–	7.69	6.76	–	8.97	8.63	8.44	–

Source: County of San Diego (2022b, 2022c)

Notes:

1-hour O_3 concentrations are from the 5-Year Air Quality Summary Annual Report (County of San Diego 2022c).

– = not available or applicable; $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million.

CMP = Camp Pendleton; RCD = Rancho Carmel Drive; KVR = Kearny Villa Road; ALP = Alpine; LES = Lexington Elementary School; SES = Sherman Elementary School; CVA = Chula Vista; DVN = Donovan.

Data taken from CARB (2024) and EPA (2024) represent the highest concentrations experienced over a given year.

There is no federal standard for 1-hour O_3, annual PM_{10}, or 24-hour SO_2, nor is there a state 24-hour standard for $PM_{2.5}$.

NAAQS comparison requires Design Value calculations. Annual values are not comparable to the NAAQS.

Table 3.1.1-2. San Diego County Air Basin Attainment Status by Pollutant

Pollutant	California Standards	Federal Standards
O_3 1-Hour Standard	Nonattainment	Attainment[1]
O_3 8-Hour Standard	Nonattainment	Nonattainment (Moderate)
PM_{10}	Nonattainment	Unclassified[2]
$PM_{2.5}$	Nonattainment	Attainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
Sulfates	Attainment	No Federal Standard
H_2S	Unclassified	No Federal Standard
VRPs	Unclassified	No Federal Standard

Source: County of San Diego (2023)

Notes:

[1] The federal 1-hour standard of 12 parts per hundred million (pphm) (0.12 ppm; 120 ppb) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

[2] Unclassified; indicates data are not sufficient for determining attainment or nonattainment.

Table 3.1.1-3. Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary	Secondary
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	Same as Primary Standard
	8 Hours	0.070 ppm (137 µg/m^3)	0.08 ppm (157 µg/m^3)	
PM_{10}	Annual Arithmetic Mean	20 µg/m^3	–	Same as Primary Standard
	24 Hours	50 µg/m^3	150 µg/m^3	
$PM_{2.5}$	24 Hours	–	35 µg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	15 µg/m^3
CO	8 Hours	9.0 ppm (10 mg/m^3)	9.0 ppm (10 mg/m^3)	–
	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	
NO_2	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary Standard
	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	–
SO_2	Annual Arithmetic Mean	–	0.030 ppm (80 µg/m^3)	–
	24 Hours	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	–
	3 Hours	–	–	0.5 ppm (1,300 µg/m^3)
	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	–
Lead (Pb)	30-Day Average	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary Standard
	Rolling 3-Month Average	–	0.15 µg/m^3	
Sulfates	24 Hours	25 µg/m^3	No Federal Standards	
H_2S	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl chloride	24 Hours	0.01 ppm (26 µg/m^3)		

Source: CARB (2016)

Notes:

mg/m^3 = milligrams per cubic meter

3.1.1.2 Regulatory Setting

Federal Regulations

At the federal level, the EPA has been charged with implementing the national air quality programs. The backbone of the EPA's air quality mandate is the federal CAA signed into law in 1970 and the subsequent Clean Air Act Amendments (CAAA) of 1977 and 1990. Although the EPA deals primarily with international, national, and interstate air pollution, the CAA and CAAA grant authority to the EPA to regulate air pollution on many levels. On the state level, the EPA is responsible for oversight of a state's air quality programs. In addition, the EPA sets federal vehicle and stationary source emission standards and provides research and guidance for state and regional/local air quality programs.

Under the CAA and CAAA, the EPA established NAAQS for O_3, CO, NO_2, SO_2, and PM_{10} and $PM_{2.5}$. The NAAQS represent the allowable atmospheric concentrations at which the public health and welfare are protected and include a reasonable margin of safety to protect the more sensitive receptors in the population.

Since the elimination of lead (Pb) from motor gasoline in the mid-1970s, lead concentrations in ambient air have substantially deceased in most areas. However, elevated lead concentrations can persist in the vicinity of industrial sources, e.g., lead-acid battery recycling and manufacturing, and near general aviation airports because lead is still used to formulate high-octane aviation gasoline for piston engines.

In addition, the CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The CAAA of 1990 requires states containing areas that violate the NAAQS to revise their SIPs to incorporate additional control measures to reduce air pollution.

State Regulations

California Air Resources Board

The state agency responsible for the coordination of state and local air pollution control programs is CARB, a branch of the California Environmental Protection Agency. A primary responsibility of CARB is to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the EPA. Although CARB has primary responsibility and produces a major portion of the SIP for pollution sources that are statewide in scope (e.g., motor vehicles), it relies on local air districts to provide additional strategies for sources under their jurisdiction, mainly stationary sources. CARB combines its data and plans with the plans provided by the local air districts and submits the SIP to the EPA. As such, the SIP consists of the emissions standards for vehicular sources set by CARB and the attainment plans, including the rules adopted by the local air districts and approved by CARB.

To ensure attainment of the NAAQS and to improve California's air quality, CARB has established a stricter set of standards in the CAAQS. The CAAQS are defined as the maximum acceptable pollutant concentrations that are not to be equaled or exceeded depending on the specific pollutant and averaging times.

Further duties of CARB include monitoring air quality. CARB has established and maintains, in conjunction with local air pollution control agencies, a network of ambient air monitoring stations. CARB is also responsible for setting emission standards for motor vehicles, consumer products, small utility engines, and off-road vehicles. CARB is additionally responsible, in conjunction with the local air districts, for developing and maintaining the AB 2588 Air Toxic “Hot Spots” program and for regulating TACs in general.

Toxic Air Contaminants

A TAC is defined by California law as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health. Federal laws use the term hazardous air pollutants to refer to the same types of compounds that are referred to as TACs under state law. California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). New sources of TACs are controlled under SDAPCD Regulation XII (SDAPCD 2024a). The regulation of toxic air pollutants is based on the levels of cancer risk and other chronic or acute health risks posed to persons who may be exposed. Joint federal, state, and local efforts to develop further regulation of air toxics will be ongoing for the foreseeable future, e.g., AB 617, the Community Air Protection Program.

Under federal law, 187 substances are listed as hazardous air pollutants (HAPs). The project would not be a major source of HAPs.

State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and is aimed at HAPs that are problematic in California.

The state has formally identified more than 200 substances as TACs. The California Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) is a statewide program that requires facilities to quantify actual (historic) emissions of TACs, conduct a Health Risk Assessment (HRA) if required, notify the public if required, and, if necessary, develop risk reduction strategies. SDAPCD Rule 1210 implements the public notification and risk reduction requirements of the California Air Toxics "Hot Spots" Information and Assessment Act of 1987 and establishes acceptable risk levels and emission control requirements for new and modified stationary source facilities that may emit TACs (SDAPCD 2024b).

Typically, land development projects generate diesel exhaust emissions from off-road construction equipment and on-road vehicles. During the construction phase, as well as from trucks during the operational phase, diesel particulate matter (DPM) would be emitted. Emissions from diesel engines currently include over 40 substances that are listed by the EPA as HAPs. In addition, DPM is listed as a TAC by CARB.

Local Regulations

San Diego County Air Pollution Control District

The SDAPCD is a County agency with the authority to regulate stationary, indirect, and area sources of air pollution (e.g., power plants, highway construction, and housing developments) within the SDAB.

The SDAPCD is primarily responsible for the control of air pollution from all sources other than emissions from motor vehicles (mobile sources), which are the responsibility of CARB and the EPA. Under federal and state law, the SDAPCD is required to adopt and enforce rules and regulations to achieve NAAQS and CAAQS and implement applicable federal and state laws. Since the passage of the California Clean Air Act (CCAA) and the CAA, this role has been expanded to include the implementation of transportation control measures and indirect source control programs to reduce mobile source emissions. The following rules and regulations would apply to construction and operation of the project:

SDAPCD Regulation II: Permits; Rule 20.2: New Source Review Non-Major Stationary Sources. This rule requires new or modified stationary source units (that are not major stationary sources) with the potential to emit 10 pounds (lbs) per day or more of VOCs, NO_x, SO_x, or PM_{10} to be equipped with best available control technology. For those units with a potential to emit above air quality impact assessment trigger levels, the units must demonstrate that such emissions would not violate or interfere with the attainment of any national air quality standard (SDAPCD 2019).

SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions. This rule prohibits discharge into the atmosphere, from any single source of emissions whatsoever, any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes that is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997). Construction of the project may result in visible emissions, primarily during earth-disturbing activities, which would be subject to SDAPCD Rule 50. Although visible emissions are less likely to occur during operation of the project, compliance with SDAPCD Rule 50 would be required during both construction and operation.

SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance. This rule prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1976). Any criteria air pollutant emissions, TAC emissions, or odors that would be generated during construction or operation of the project would be subject to SDAPCD Rule 51. Violations can be

reported to SDAPCD in the form of an air quality complaint by telephone, email, or online form. Complaints are investigated by SDAPCD as soon as possible.

SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust. This rule regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (SDAPCD 2009). Construction of the project may result in fugitive dust emissions that would be subject to SDAPCD Rule 55.

SDAPCD Regulation IV: Prohibitions; Rule 67: Architectural Coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2021). Construction and operation of the project would include application of architectural coatings, and would be subject to the VOC content limits identified in SDAPCD Rule 67, which applies to coatings manufactured, sold, or distributed within San Diego County.

SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1200: Toxic Air Contaminants – New Source Review. This rule requires new or modified stationary source units with the potential to emit TACs above rule threshold levels to either demonstrate that they will not increase the maximum incremental cancer risk above 1 in 1 million at every receptor location, or demonstrate that toxics best available control technology (T-BACT) will be employed if maximum incremental cancer risk is equal to or less than 10 in 1 million, or demonstrate compliance with SDAPCD's protocol for those sources with an increase in maximum incremental cancer risk at any receptor location of greater than 10 in 1 million but less than 100 in 1 million (SDAPCD 2024a). The project's emergency generators would be subject to SDAPCD Rule 1200 and would be subject to New Source Review requirements.

SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1210: Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction. This rule requires each stationary source that is required to prepare a public risk assessment to provide written public notice of risks at or above the following levels: maximum incremental cancer risks equal to or greater than 10 in 1 million, or cancer burden equal to or greater than 1.0, or total acute non-cancer health hazard index equal to or greater than 1.0, or total chronic noncancer health hazard index equal to or greater than 1.0 (SDAPCD 2024b).

Regional Air Quality Plans

As previously stated, a nonattainment designation means that a primary NAAQS or CAAQS has been exceeded in a given area per a designated schedule depending on the pollutant. For each nonattainment area within the state, the CCAA has specified air quality management strategies that must be adopted by the agency responsible for the nonattainment area. Each area must prepare and adopt an Air Quality Management Plan or RAQS, which lays out programs for attaining the CAAQS and NAAQS for all criteria pollutants. At present, no attainment plan for $PM_{2.5}$ or PM_{10} in San Diego County is required by the state regulations.

The County's RAQS for the SDAB was most recently updated in 2022. The RAQS outlines the SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. In addition, the SDAPCD relies on the SIP, which includes the SDAPCD's plans and control measures for attaining the O_3 NAAQS. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on sources to attain the standards. The RAQS relies on information from the SANDAG, including the SANDAG Transportation Control Measures Plan, and information regarding projected growth in San Diego County to identify strategies for the reduction of stationary source emissions through regulatory controls.

San Diego County General Plan

San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability (General Plan) (County of San Diego 2011) outlines a number of GHG strategies to comply with AB 32. AB 32 mandates the reduction of GHG emissions, and the General Plan includes a number of policies to meet this goal.

San Diego County 2024 Climate Action Plan

The County has developed the *Final 2024 Climate Action Plan* (2024 CAP) (County of San Diego 2024a), a comprehensive strategy to reduce GHG emissions in its unincorporated communities and from County operations. In July 2024, the Planning Commission recommended adoption of the 2024 CAP to the County Board of Supervisors. On September 11, 2024, the County Board of Supervisors adopted the 2024 CAP (County of San Diego 2025). The 2024 CAP identifies strategies, measures, and actions to meet the County's targets to reduce GHG emissions by 2030 and 2045, consistent with the state's 2022 Scoping Plan for Achieving Carbon Neutrality and legislative GHG reduction targets and demonstrates progress toward the state's 2045 net zero GHG emissions goal. The CAP's attainment of the County's GHG reduction targets is the result of (1) several initiatives to be directly implemented by the County and (2) incorporating GHG reduction features into the construction and operation of development projects (including County-initiated and privately initiated projects).

In order to demonstrate consistency with the 2024 CAP, the County has developed a CAP Consistency Review Checklist (CAP Consistency Checklist). The checklist establishes a two-step process to determine if a project is consistent with the CAP. Step 1 of the checklist evaluates a project's consistency with the growth projections used in the CAP to estimate future GHG emissions from activities in unincorporated areas of San Diego County. Since the CAP uses growth projections based on the adopted General Plan, the first step in determining a project's consistency with the CAP is to demonstrate its alignment with the regional categories and land use designations of the General Plan. All projects must show consistency with the existing General Plan regional categories, land use designations, and the uses and development density and intensity allowed under the Zoning Ordinance. If a project is consistent with the General Plan, then Step 2 of the checklist should be completed. If a project is not consistent with the regional categories or land use designations of the General Plan, it cannot use the CAP Consistency Checklist for CEQA streamlining. Step 2 of the checklist outlines CAP measures and actions as "consistency requirements" that project proponents must incorporate into their projects to demonstrate compliance with the CAP. Projects are required to show consistency with the CAP requirements or explain why the requirements are not applicable. Appendix H.3 presents the project's 2024 CAP Consistency Checklist (SWCA 2025).

San Diego County Zoning Ordinance Section 6318

The Zoning Ordinance requires that all commercial and industrial uses be operated so they do not emit matter causing unpleasant odors that are perceptible by the average person at or beyond any lot line of the lot containing said uses. Section 6318 goes on to provide specific dilution standards that must be met "at or beyond any lot line of the lot containing the uses" (County of San Diego 2022d:1-04).

3.1.1.3 Analysis of Project Effects and Determination as to Significance

Guidelines For Determination of Significance

For the purpose of this EIR, Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality* (County of San Diego 2007) apply to both the direct impact analysis and the cumulative impact analysis.

A significant impact would result if the project would:

1. Conflict with or obstruct the implementation of the San Diego County RAQS and/or applicable portions of the SIP;
2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation:
    a. Result in total emissions (stationary, fugitive, and mobile sources) exceeding the screening-level thresholds in Table 3.1.1-4 for NO_x, VOCs, PM_{10}, and $PM_{2.5}$;
    b. Result in emissions that exceed 250 lbs per day of NO_x or 75 lbs per day of VOCs;
    c. Result in emissions of CO that exceed 550 lbs per day, or the screening-level thresholds, and when t) or an 8-hour average of 9 ppm;
    d. Result in emissions of $PM_{2.5}$ that exceed 55 lbs per day; and
    e. Result in emissions of PM_{10} that exceed 100 lbs per day and increase the ambient PM_{10} concentration by 5.0 micrograms per cubic meter ($\mu g/m^3$) or greater at the maximum exposed individual receptor;
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is nonattainment under an applicable federal or state ambient air quality standard (including emissions which exceed the screening-level thresholds for O_3 precursors listed in Table 3.1.1-4 for PM_{10}, $PM_{2.5}$, and O_3 precursors, specifically NO_x and VOCs);
4. Expose sensitive receptors (including but not limited to K-12 schools, hospitals, resident care facilities, daycare centers, and residents) to substantial pollutant concentrations:
    a. Place sensitive receptors near CO hot spots or creates CO hot spots near sensitive receptors; and
    b. Result in exposure to TACs resulting in a maximum incremental cancer risk greater than 1 in 1 million without the application of T-BACT, an incremental cancer risk greater than 10 in 1 million with application of T-BACT, or a health hazard index greater than one would be deemed as having a potentially significant impact; and
5. Expose a considerable number of persons to objectionable odors.

For projects whose total stationary, fugitive, and mobile source emissions exceed the screening-level thresholds listed in Table 3.1.1-4, an Air Quality Impact Assessment (AQIA) is typically required to show that project emissions would not cause a violation of an air quality standard or contribute substantially to an existing or projected air quality violation.

Table 3.1.1-4. Screening-Level Thresholds for Air Quality Impact Assessment

Air Contaminant	County AQIA Thresholds for Mass Emission Rates		
	(lbs/hour)	(lbs/day)	(tons/year)
NO_x	25	250	40
CO	100	550	100
PM_{10}	–	100	15
SO_x	25	250	40
Lead and lead compounds	–	3.2	0.6
$PM_{2.5}$	–	55	10
VOC	–	75	13.7

Source: County of San Diego (2007)

Analysis Methodology

The construction analysis was performed using California Emissions Estimator Model (CalEEMod) version 2022.1.1.20 (California Air Pollution Control Officers Association [CAPCOA] 2022), the official statewide land use computer model designed to provide a uniform platform for estimating potential criteria pollutant and GHG emissions associated with both construction and operations of land use projects under CEQA. The model quantifies direct emissions from construction (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The mobile source emission factors used in the model, published by CARB, include the Pavley standards and Low Carbon Fuel standards. The model also identifies project design features, regulatory measures, and mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from the selected measures. CAPCOA developed CalEEMod in collaboration with the California air districts. Default land use data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) were provided by the various California air districts to account for local requirements and conditions. As the official assessment methodology for land use projects in California, CalEEMod is relied upon herein for construction and operational emissions quantification, which forms the basis for the impact analysis.

Construction

A project's construction phase produces many types of emissions, but PM_{10} (including $PM_{2.5}$) in fugitive dust and diesel engine exhaust are the pollutants of greatest concern. Fugitive dust emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle exhaust. Construction-related emissions can cause substantial increases in localized concentrations of PM_{10}, as well as affecting PM_{10} compliance with ambient air quality standards on a regional basis. Particulate emissions from construction activities can lead to adverse health effects as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces. The use of diesel-powered construction equipment emits the O_3 precursors NO_x, VOCs, and DPM, the latter being a composite of TACs containing a variety of hazardous substances. Large construction projects using multiple large earth-moving equipment are evaluated to determine if operations may exceed the District's daily threshold for NO_x emissions and could temporarily expose area residents to hazardous levels of DPM. Use of architectural coatings and other materials associated with finishing buildings may also emit VOC and TACs. CEQA significance thresholds address the impacts of construction activity emissions on local and regional air quality. Thresholds are also provided for other potential impacts related to project construction, such as odors and TACs.

PM_{10} emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors. Despite this variability in emissions, experience has shown that there are several feasible control measures that can be reasonably implemented to significantly reduce fugitive dust emissions from construction, primarily through frequent water application, constitutes sufficient mitigation to reduce PM_{10} impacts to a level considered less than significant.

The project may require blasting during construction activities to facilitate building of solar array foundations. During blasting operations, other construction activities would temporarily stop and resume once blasting is completed. Blasting would occur at 2- to 3-day intervals, with no more than one blast per day. It is estimated that 5,000 cubic yards of rock would be blasted during the early stages of excavation and mass grading for Phase I. The area of each blast would be limited to 30,000 square feet. Blasting operations usually require a chemical material that is capable of extremely rapid combustion resulting in an explosion or detonation. These materials are usually mixtures of several ingredients but are often oxygen-deficient as combustion reactions take place which causes a formation of CO and to a lesser extent, NO_x. Gelatin Dynamite (dynamite with 20%–100% nitroglycerin) is expected to generate CO in quantities of 104 lbs per every ton of explosives detonated and NO_x at 53 lbs per ton (see Appendix H.1).

Operations

The term "project operations" refers to the full range of activities that can or may generate criteria pollutants, GHG, and TAC emissions when the project is functioning in its intended use. For projects such as office parks, shopping centers, apartment buildings, residential subdivisions, and other indirect sources, motor vehicles traveling to and from the project represent the primary source of air pollutant emissions. For industrial projects and some commercial projects, equipment operation and manufacturing processes, i.e., permitted stationary sources, can be of greatest concern from an emissions standpoint. CEQA significance thresholds address the impacts of operational emission sources on local and regional air quality. Thresholds are also provided for other potential impacts related to project operations, such as odors.

The project would be operated remotely and normally unoccupied. Operational emissions of the project would be minimal, limited to the occasional use of maintenance vehicles and as-needed use of small equipment, e.g., portable utility generators. Minimal operational emissions are not quantified because such estimates would be speculative.

Future Decommissioning

The aboveground (detachable) equipment and structures would be disassembled and removed from the site when the facility reaches the end of its useful economic life, assumed to be 30 years in service. Detachable elements include all photovoltaic modules and support structures, battery storage units, inverters, transformers, and associated controllers. Fencing, substation, and aboveground conductors on the transmission facilities would be removed next. Underground collector and transmission components would then be removed. Most of these materials would be recycled or reclaimed. Remaining materials that cannot be recycled or reclaimed would be limited and would be contained and disposed of off-site, consistent with the County's Construction and Demolition Materials Diversion Program (County of San Diego Code of Regulatory Ordinances Sections 68.508–68.518). The activities associated with decommissioning would not include substantial earthmoving, such as grading.

CO Hotspots

Throughout California, the emissions and ambient concentrations of CO have decreased substantially since the mid-1970s. The SDAPCD is designated as attainment or unclassifiable for both the NAAQS and

CAAQS for CO. These improvements are largely due to the introduction of lower-emitting motor vehicles equipped with three-way catalytic converters and cleaner-burning oxygenated fuels. Because of the substantial reductions of vehicular CO exhaust, CO hotspot analyses are no longer needed to demonstrate that project-related CO emissions would not cause an exceedance of the NAAQS and CAAQS. Additionally, the project site is rural and in attainment with state and federal ambient air quality standards for CO. Exhaust emissions would be dispersed over a wide desert area with characteristic seasonal winds. Due to dispersion and the non-urban nature of the project site, i.e., few receptors, a CO hotspot analysis would be expected to show less than significant air quality impacts, i.e., well under state ambient air quality standards (20 parts per million by volume [ppmv] per hour and 9 ppmv per 8 hours).

TACs

Due to the short duration of construction activities, approximately 1 year, with typical grading activities and limited fill being hauled to the site (e.g., substation and battery facilities which must be on flat ground), and since the criteria pollutant construction emissions are well below the CEQA thresholds, emissions of TACs (as DPM) are not expected to result in exposing widely dispersed sensitive receptors to substantial pollutant concentrations. As such, an HRA was not deemed necessary for the project.

Operational emissions of the project would be minimal for the normally unoccupied solar energy facility, limited to the occasional use of maintenance vehicles and as-needed use of small equipment, e.g., portable utility generators. Minimal operational emissions are not quantified because such estimates would be speculative.

Dust Control Measures

The project would implement the following best management practices (BMPs), which are also accounted for in the construction emission modeling prepared for the project.

- Prior to the County's approval of any grading permits and during proposed project construction, a Fugitive Dust Control Plan will be prepared demonstrating compliance with SDAPCD Rule 55 and County Code Section 87.428 (Grading Ordinance), to the satisfaction of the County. The project applicant or its designee will require implementation of the following fugitive dust measures to minimize PM_{10} emissions as part of the Fugitive Dust Control Plan. All measures will be designated on Grading and Improvement Plans.
    - Prior to construction activities, the project applicant will employ a construction relations officer who will address community concerns regarding on-site construction activity. The project applicant will provide public notification in the form of a visible sign containing the contact information of the construction relations officer who will document complaints and concerns regarding on-site construction activity. The sign will be placed in easily accessible locations and noted on Grading and Improvement Plans.
    - Grading areas will be watered, or another SDAPCD-approved dust control non-toxic agent will be used, at least three times daily, to minimize fugitive dust only where chemical stabilizers are not used.
    - All permanent roads and the paved access roadway improvements will be constructed and paved as early as possible in the construction process to reduce construction vehicle travel on unpaved roads. Foundations will be finalized as soon as possible following site preparation and grading activities to reduce fugitive dust from earth-moving operations.
    - Grading areas will be stabilized as quickly as possible to minimize fugitive dust.
    - Wheel washers, grates, rock, or road washers will be installed adjacent to the site access points for tire inspection and washing prior to vehicle entry on public roads.

  - Visible track-out into traveled public streets will be removed with the use of sweepers, water trucks, or similar method within 30 minutes of occurrence.
  - Haul trucks will be covered or at least 2 feet of freeboard will be maintained to reduce blow-off during hauling.
  - A 15-mile-per-hour speed limit on unpaved surfaces will be enforced.
  - Haul truck staging areas will be provided for loading and unloading of soil and materials and will be located away from sensitive receptors at the farthest feasible distance.
- All architectural coatings used during construction will be SDAPCD Rule 67–compliant.
- Paved roads will be cleaned regularly during construction.
- During blasting activities, the construction contractor will implement all feasible engineering controls to control fugitive dust including exhaust ventilation, blasting cabinets and enclosures, vacuum blasters, drapes, water curtains, or wet blasting. Watering methods, such as water sprays and water applications, also will be implemented during blasting, rock crushing, cutting, chipping, sawing, or any activity that will release dust particles to reduce fugitive dust emissions.
- All internal access road surfaces will be consistent with the Caltrans Class II standard construction specifications, and will be composed of permeable decomposed granite, and permeable in order to reduce fugitive dust and erosion in accordance with County Code Section 87.428, Dust Control Measures, and with San Diego Air Pollution Control District Rule 55, which regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions.

Conformance to Regional Air Quality Strategy

Guidelines for the Determination of Significance

This impact analysis considers the following County guideline:

- The proposed project would conflict with or obstruct the implementation of the RAQS and/or applicable portions of the SIP.

Analysis

Project consistency is based on whether the project would conflict with or obstruct the implementation of the RAQS and/or applicable portions of the SIP, which would lead to increases in the frequency or severity of existing air quality violations. The RAQS outlines the SDAPCD's plans and control measures designed to attain the CAAQS for O_3. In addition, the SDAPCD relies on the SIP, which includes the SDAPCD's plans and control measures for attaining the O_3 NAAQS. The RAQS is largely based on population predictions by the SANDAG.

The project would comply with all SDAPCD rules and regulations results and would be in conformance with SDAPCD air quality plans. These air quality attainment plans are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls describing how the state will attain ambient air quality standards. The RAQS, SIP, and associated control measures are based on information derived from projected growth in San Diego County in order to project future emissions and then determine strategies and regulatory controls for the reduction of emissions. Growth projections are based on the General Plan developed by the County and its incorporated cities.

Although the project would contribute to energy supply, which is one factor of population growth, the project would not significantly increase employment, population, or growth within the region. The project does not include residential development or large local or regional employment centers, and thus would not result in significant population or employment growth. Furthermore, the operation of the project would create renewable energy over its planned lifetime, helping California meet its Renewables Portfolio Standard, and decrease the need for energy from fossil fuel–based power plants in the state, which is considered a beneficial impact to statewide air quality. The energy produced by the project would displace the criteria pollutant emissions that would otherwise be produced by existing, business-as-usual power generation resources (including natural gas and coal).

The thresholds of significance, adopted by SDAPCD, determine compliance with the goals of attainment plans in the region. As such, emissions below SDAPCD daily and annual significance emissions thresholds would not conflict with or obstruct implementation of the applicable air quality plans. The project implementation would generate emissions of criteria air pollutants during construction and operation. The emissions from project construction (Table 3.1.1-5, Table 3.1.1-6, and Table 3.1.1-7) are below the thresholds of significance; therefore, the project does not conflict with implementation of SDAPCD applicable air quality plans. The detailed assumptions and calculations, as well as CalEEMod outputs, are provided in Appendix H.1 and Appendix H.4. Therefore, the project would have **less-than-significant impacts**.

Conformance to Federal and State Ambient Air Quality Standards

Guidelines for the Determination of Significance

This impact analysis considers the following County guideline:

- Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation:
    - Result in total emissions (stationary, fugitive, and mobile sources) exceeding the screening-level thresholds in Table 3.1.1-4 for NO_x, VOCs, PM_{10}, and $PM_{2.5}$;
    - Result in emissions that exceed 250 lbs per day of NO_x or 75 lbs per day of VOCs;
    - Result in emissions of CO that exceed 550 lbs per day, or the screening-level thresholds, and when totaled with the ambient concentrations exceed a 1-hour concentration of 20 ppm or an 8-hour average of 9 ppm;
    - Result in emissions of $PM_{2.5}$ that exceed 55 lbs per day; and
    - Result in emissions of PM_{10} that exceed 100 lbs per day and increase the ambient PM_{10} concentration by 5.0 $\mu g/m^3$ or greater at the maximum exposed individual receptor;

Analysis

SDAPCD's thresholds of significance represent the allowable emissions a project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed SDAPCD's thresholds of significance on a project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. The region is designated as nonattainment for federal and state 8-hour O_3 standards, federal and state 24-hour PM_{10} standards, and state $PM_{2.5}$ standards. Impacts related to construction and operation of the project are addressed separately below.

Construction

Construction of the project would generate emissions of criteria air pollutants and fugitive dust as a result of soil disturbance and the use of on-site construction equipment, as well as from off-site trucks hauling water and construction materials to the project site. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. Fugitive dust emissions would primarily result from site preparation and road construction activities. NO_x and CO emissions would primarily result from the use of construction equipment and motor vehicles. The estimated unmitigated emissions from construction of the project are summarized in Table 3.1.1-5, Table 3.1.1-6, and Table 3.1.1-7. The detailed assumptions and calculations, as well as CalEEMod outputs, are provided in Appendix H.1 and Appendix H.4.

Blasting would generate CO and NO_x in quantities of 104 and 53 lbs per every ton of explosives detonated, respectively. With the use of up to three tons of explosives per day, construction CO and NO_x emissions would remain below the SDAPCD thresholds. Approximately 0.22 lbs of PM_{10} per day would be generated during the blasting operations.

Table 3.1.1-5. Construction Annual Emissions Summary and Significance Evaluation

Criteria Pollutants	Unmitigated Emissions (tons/year)	Threshold (tons/year)	Threshold Exceeded?
VOC	0.47	13.7	*No*
NO_x	4.07	40	*No*
CO	4.68	100	*No*
SO_x	0.01	40	*No*
Total PM_{10}	1.33	15	*No*
Total $PM_{2.5}$	0.64	10	*No*

Source: Yorke Engineering, LLC (2025) (Appendix H.4)
Notes:
Total PM_{10} / $PM_{2.5}$ includes both fugitive dust and engine exhaust.

Table 3.1.1-6. Construction Daily Emissions Summary and Significance Evaluation

Criteria Pollutants	Unmitigated Emissions (lbs/day)	Threshold (lbs/day)	Threshold Exceeded?
VOC	6.51	75	*No*
NO_x	65.43	250	*No*
CO	61.11	550	*No*
SO_x	0.11	250	*No*
Total PM_{10}	30.06	100	*No*
Total $PM_{2.5}$	16.21	55	*No*

Sources: Yorke Engineering, LLC (2025) (Appendix H.4)
Notes:
lbs/day emissions are winter or summer maximum for planned land use.
Total PM_{10} / $PM_{2.5}$ includes both fugitive dust plus engine exhaust.

Table 3.1.1-7. Construction Hourly Emissions Summary and Significance Evaluation

Criteria Pollutants	Unmitigated Emissions (lbs/hour)	Threshold (lbs/hour)	Threshold Exceeded?
VOC	0.81	–	*No*
NO_x	8.18	25	*No*
CO	7.64	100	*No*
SO_x	0.01	25	*No*
Total PM_{10}	3.76	–	*No*
Total $PM_{2.5}$	2.03	–	*No*

Yorke Engineering, LLC (2025) (Appendix H.4)
Notes:
Assumes 8-hour construction workday
Total PM_{10} / $PM_{2.5}$ includes both fugitive dust and engine exhaust.

As shown in Table 3.1.1-5, Table 3.1.1-6, and Table 3.1.1-7, even without incorporation of dust control measures, estimated unmitigated construction emissions for all pollutants are below SDAPCD annual, daily, and hourly significance thresholds. Therefore, impacts from construction-related air pollutant emissions would be **less than significant.**

Operation

Operational emissions are subject to the same SDAPCD significance thresholds displayed above. It is anticipated that operational emissions of the project would be minimal and would be limited to the occasional use of on-road vehicles (about 50 to 100 trips per year) for maintenance of the solar facility. As such, it is anticipated that the operational emissions would be minimal and were not quantified because such estimates would be speculative. Therefore, impacts from operational air pollutant emissions would be **less than significant.**

Decommissioning

Additionally, it is expected that the air quality emissions from decommissioning the solar facility would be less than the emissions generated during construction because no substantial earthmoving would be necessary. Thus, the potential air quality impacts from the project's decommissioning activities would also be considered **less than significant.**

Therefore, the project would not violate any air quality significance thresholds or contribute substantially to an existing or projected air quality violation and the project would have a **less-than-significant impact.**

Impacts to Sensitive Receptors

Guidelines for the Determination of Significance

This impact analysis considers the following County guidelines:

- The project places sensitive receptors near CO "hotspots" or creates CO "hotspots" near sensitive receptors.
- Project implementation will result in exposure to TACs resulting in a maximum incremental cancer risk greater than 1 in 1 million without application of Toxics-Best Available Control Technology or a health hazard index greater than one would be deemed as having a potentially significant impact.

Analysis

Some population groups, such as children, the elderly, and acutely and chronically ill persons are considered more sensitive to air pollution than others. Sensitive receptor locations typically include residential areas, hospitals, elder-care facilities, rehabilitation centers, daycare centers, and parks. Sensitive receptors near the site include the single-family residences to the north, east, and west; and the Clover Flat Elementary School approximately 3,700 feet (0.7 mile) to the northwest. The nearest sensitive receptors to the project include residences approximately 150 feet west.

Construction

Carbon Monoxide

Projects that would site sensitive receptors near potential CO hotspots (i.e., zones where the CO concentration exceeds the NAAQS and/or CAAQS) or would contribute vehicle traffic to local intersections where a CO hotspot could occur would be considered as having a potentially significant impact. Because of the substantial reductions of vehicular CO exhaust, CO hotspot analyses are no longer needed to demonstrate project related CO emissions would not cause an exceedance of the NAAQS and CAAQS. Additionally, the project site is rural and in attainment with state and federal ambient air quality standards for CO. Emissions would be dispersed over a wide desert area with characteristic seasonal winds. Due to dispersion and the non-urban nature of the project site, i.e., few receptors, a CO hotspots analysis would be expected to show less than significant air quality impacts, i.e., well under state ambient air quality standards (20 ppmv per hour; 9 ppmv per 8 hours). Thus, a CO hotspot analysis is not necessary, and construction-related impacts would be **less than significant.**

Toxic Air Contaminants

It is expected that cumulative CO impacts from decommissioning the solar facility would be less than that for construction because no substantial earthmoving would be necessary. Additionally, operational maintenance trips to the facility would occur once or twice a week (50 to 100 trips per year). Due to vehicle exhaust control improvements and infrequent site visits, a CO hotspot analysis is not necessary, and operational impacts would be **less than significant.**

Projects that would result in exposure to TAC resulting in a maximum incremental cancer risk greater than 1 in 1 million, without the application risk reduction measures, or a threshold of 10 in 1 million for projects implementing best emission control technologies or an HIA or HIC greater than one would be considered as having a potentially significant impact. The TAC of most concern associated with construction is DPM, which is a potent carcinogen. For permanent (long-term) sources, cancer risk is typically predicted for a lifetime exposure of 30 years, although the construction duration is much shorter. Construction activities are expected to last approximately 2.5 years, or about 8% of the long-term criterion. Due to the short-term nature of the construction activities and low construction emissions associated with the project, impacts from TAC emissions are expected to be low; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations. It is expected that TAC impacts from decommissioning the solar facility would be less than that for construction because no substantial earthmoving would be necessary. Impacts to sensitive receptors related to construction and decommissioning TACs would be **less than significant.**

Operation

Carbon Monoxide

Consistent with the County's guidelines, analysis of potential CO hotspots would not be required for the project as it does not propose uses that would significantly contribute to local population or employment growth or congestion on local roadways. The addition of vehicles during operations would not significantly contribute peak-hour trips in the project area or impact roadway intersections. During operations, the project would be an unoccupied facility that would be monitored remotely. Periodic inspections, washing and repair, or maintenance would occur and generate an anticipated maximum of 20 average daily trips should these activities occur simultaneously. Therefore, the project would not have the potential to create a CO hotspot or result in a considerable net increase of CO. Impacts would be **less than significant**.

Toxic Air Contaminants

Minimal TACs would be emitted during operation of the solar facility, therefore, sensitive receptors would not be exposed to substantial pollutant concentrations. Impacts would be **less than significant**.

Therefore, emissions resulting from construction and operation of the project would be minimal and would not expose sensitive receptors to substantial pollutant concentrations. As such, construction-related and operational impacts to sensitive receptors would be **less than significant**.

Other Emission Impacts

Guidelines for the Determination of Significance

This impact analysis considers the following County guideline:

- The project, which is not an agricultural, commercial, or an industrial activity subject to SDAPCD standards, as a result of implementation, would either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which would affect a considerable number of persons or the public.

Analysis

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The project would not be a source of any odors during operations. Construction of the project could result in emission of odors from construction equipment and vehicles. During construction, a limited number of diesel engines would be operated on the project site for limited durations. Diesel exhaust and VOCs from these diesel engines would be emitted; however, the short duration of construction activities is expected be limited in extent at any given time and distributed through the project site. In addition, emissions would disperse rapidly from the project site and diesel exhaust odors would be consistent with existing vehicle odors in the area.

No mitigation measures are needed to reduce project impacts to less than significant. The project's impact with respect to odor levels would be **less than significant**.

3.1.1.4 Cumulative Impact Analysis

Cumulatively Considerable Net Increase of Criteria Pollutants (Construction)

Guidelines for the Determination of Significance

The *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Air Quality* (County of San Diego 2007) applies to the cumulative impact analysis. Cumulatively considerable net increases during the construction phase would typically occur if two or more projects near each other are simultaneously under construction. A significant impact would result if:

- A project that has a significant direct impact on air quality with regard to emissions of PM_{10}, $PM_{2.5}$, NOx and/or VOCs would also have a significant cumulatively considerable net increase.
- In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines identified in Table 3.1.1-5.

Analysis

A project's construction phase produces many types of emissions, but PM_{10} (including $PM_{2.5}$) in fugitive dust and diesel engine exhaust are the pollutants of greatest concern. Fugitive dust emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle exhaust. Construction-related emissions can cause substantial increases in localized concentrations of PM_{10}, as well as affecting PM_{10} compliance with ambient air quality standards on a regional basis. Particulate emissions from construction activities can lead to adverse health effects as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces. The use of diesel-powered construction equipment emits O_3 precursors oxides of nitrogen (NOx) and reactive organic gases (ROG), and DPM, the latter being a composite of TACs containing a variety of hazardous substances. Large construction projects using multiple large earthmoving equipment are evaluated to determine if operations may exceed the District's daily threshold for NOx emissions and could temporarily expose area residents to hazardous levels of DPM. Use of architectural coatings and other materials associated with finishing buildings may also emit ROG and TACs. CEQA significance thresholds address the impacts of construction activity emissions on local and regional air quality. Thresholds are also provided for other potential impacts related to project construction, such as odors and TACs.

PM_{10} emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors. Despite this variability in emissions, experience has shown that there are several feasible control measures that can be reasonably implemented to significantly reduce fugitive dust emissions from construction, primarily through frequent water application, constitutes sufficient mitigation to reduce PM_{10} impacts to a level considered less than significant. The project would incorporate dust control practices which would minimize PM_{10} and $PM_{2.5}$ emissions.

Projects that would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (PM_{10}, $PM_{2.5}$, or an exceedance of quantitative thresholds for O_3 precursors, NO_x and VOCs) would be considered as having a potentially significant impact. In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed

projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the levels of significance. Cumulatively considerable net increases during the construction phase would typically happen if two or more projects near each other are simultaneously constructing projects. Construction-related emissions of the criteria pollutants are significantly less than the SDAPCD levels of significance and would therefore not cause a significant direct impact (see Table 3.1.1-5, Table 3.1.1-6, and Table 3.1.1-7).

The proposed project could combine with other future projects anticipated in the vicinity to increase the amount of pollutant emissions within the SDAB. Because the SDAB is currently in nonattainment of CAAQS for O_3, PM_{10}, and $PM_{2.5}$, cumulative development has the potential to perpetuate or worsen this excess of standards. However, cumulative development is subject to the plans and control measures presented in the RAQS, which is updated to incorporate land use projections for the County and other local jurisdictions. Projects that propose new development that is consistent with the growth anticipated in land use plans used in the projections are generally consistent with the RAQS. The project does not include residential development or large local or regional employment centers, and thus would not result in significant population or employment growth. Therefore, implementation of the project would be consistent with the RAQS and would not result in cumulatively significant impacts.

Project-related construction emissions are significantly below the levels of significance and would contribute not result in a cumulatively considerable increase of nonattainment pollutants. Thus, impacts would be **less than significant**, and no mitigation would be required.

Cumulatively Considerable Net Increase of Criteria Pollutants (Operation)

Guidelines for the Determination of Significance

The guidelines for the consideration of operational cumulatively considerable net increases are treated differently due to the mobile nature of the emissions. The SDAB's RAQS, based on growth projections derived from the allowed General Plan densities, are updated every 3 years by SDAPCD and lay out the programs for attaining the CAAQS and NAAQS for O_3 precursors. It is assumed that a project that conforms to the County's General Plan and does not have emissions exceeding the screening-level thresholds, would not create a cumulatively considerable net increase to O_3 since the emissions were accounted for in the RAQS.

The following guidelines for determining significance must be used for determining the cumulatively considerable net increases during the operational phase:

- A project that does not conform to the RAQS and/or has a significant direct impact on air quality with regard to operational emissions of PM_{10}, $PM_{2.5}$, NO_x, and/or VOCs would also have a significant cumulatively considerable net increase.
- Projects that cause road intersections to operate at or below a level of service E (analysis only required when the addition of peak-hour trips from the proposed project and the surrounding projects exceeds 2,000) and create a CO hotspot create a cumulatively considerable net increase of CO.

Analysis

Project operations refers to the full range of activities that can or may generate criteria pollutants, GHGs, and TAC emissions when the project is functioning in its intended use. For projects such as office parks, shopping centers, apartment buildings, residential subdivisions, and other indirect sources, motor vehicles traveling to and from the project represent the primary source of air pollutant emissions. For industrial

projects and some commercial projects, equipment operation and manufacturing processes, i.e., permitted stationary sources, can be of greatest concern from an emissions standpoint. CEQA significance thresholds address the impacts of operational emission sources on local and regional air quality. Thresholds are also provided for other potential impacts related to project operations, such as odors.

The project would be operated remotely and normally unoccupied. Operational emissions of the project would be de minimis, limited to the occasional use of maintenance vehicles and as-needed use of small equipment, e.g., portable utility generators. Operational emissions are not quantified.

Projects that would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (PM_{10}, $PM_{2.5}$, or an exceedance of quantitative thresholds for O_3 precursors, NO_x and VOCs) would be considered as having a potentially significant impact. It is assumed that a project that conforms to the County's General Plan and does not have emissions exceeding the SDAPCD thresholds of significance would not create a cumulatively considerable net increase to O_3 since the emissions were accounted for in the RAQS.

Operational emissions of the project would be minimal and limited to the occasional use of on-road vehicles (about 50 to 100 trips per year) for maintenance of the solar facility. Therefore, the project conforms to the County's General Plan and RAQS. Thus, the project would not create a cumulatively considerable net increase in nonattainment pollutants. No mitigation measures are needed. The project conforms to the County's General Plan and RAQS and would not result in a cumulatively considerable increase of nonattainment pollutants. Thus, the project would result in **less-than-significant impacts**, and no mitigation would be required.

3.1.1.5 Conclusion

The following discussion provides a summary of the conclusions reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures, if any, are implemented. The project would not require mitigation measures because no identified significant impacts were identified relative to air quality.

Conformance to Regional Air Quality Strategy

The project would comply with all SDAPCD rules and regulations results and would be in conformance with SDAPCD air quality plans. Further, the emissions from project construction are below the thresholds of significance; therefore, the project would result in **less-than-significant impacts** without mitigation.

Conformance to Federal and State Ambient Air Quality Standards

Annual, daily, and hourly construction-related air pollutant emissions would not exceed any of the applicable SDAPCD significance thresholds (see Table 3.1.1-5, Table 3.1.1-6, and Table 3.1.1-7). The project would also incorporate dust control practices which would minimize PM_{10} and $PM_{2.5}$ emissions. Operation of the project would result in **less-than-significant impacts** without mitigation.

Impacts to Sensitive Receptors

The short-term construction emissions dispersed over a wide area would not expose sensitive receptors to substantial pollutant concentrations. Additionally, operational emissions of the project would be minimal and therefore, would not expose sensitive receptors to substantial pollutant concentrations. As such, the project would result in **less-than-significant impacts** to sensitive receptors, without mitigation.

Other Emissions

The project would not be a source of any odors during operations. Construction of the project could result in emission of odors from construction equipment and vehicles. However, emissions would disperse rapidly from the project site and diesel exhaust odors would be consistent with existing vehicle odors in the area. Therefore, the project would result in **less-than-significant impacts** with respect to odor levels, without mitigation.

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3.1.2 Energy

This section of the Environmental Impact Report (EIR) discusses potential impacts related to energy use resulting from the implementation of the proposed project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the proposed project, which were prepared in accordance with the *Final 2024 Climate Action Plan* (2024 CAP) (County of San Diego 2024a) and the *2024 CAP Consistency Checklist and Guidelines for Determining Significance for Climate Change* (County of San Diego 2024b):

- *Starlight Solar Air Quality and Greenhouse Gas Technical Study* (Yorke Engineering, LLC 2024a) (Appendix H.1 of this EIR)
- *2024 Climate Action Plan Consistency Review Checklist for Starlight Solar* (SWCA Environmental Consultants [SWCA] 2025) (Appendix H.3 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding energy use during construction, and potential energy waste if generation is curtailed. These concerns are addressed in this section of the EIR where applicable. Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.2.1 Existing Conditions

Energy is primarily categorized into three areas: electricity, natural gas, and transportation fuels. According to the U.S. Energy Information Administration (U.S. EIA), California is the most populous state in the United States, representing 12% of the total national population; has the largest economy; and is second only to Texas in total energy consumption. However, California has one of the lowest per capita energy consumption levels in the United States, a result of California's mild climate, efforts to increase energy efficiency, and implementation of alternative technologies (U.S. EIA 2022).

Units of Measure

The units of energy used in this section are British thermal units (BTU), kilowatt hours (kWh), therms, and gallons. A BTU is the quantity of heat required to raise the temperature of one pound of water 1 degree Fahrenheit (°F) at sea level. Because the other units of energy can all be converted into equivalent BTU, the BTU is used as the basis for comparing energy consumption associated with different resources. A kWh is a unit of electrical energy, and 1 kWh is equivalent to approximately 3,413 BTU, taking into account initial conversion losses (i.e., from one type of energy, such as chemical, to another type of energy, such as mechanical) and transmission losses. Natural gas consumption is described typically in terms of cubic feet or therms; 1 cubic foot of natural gas is equivalent to approximately 1,050 BTU, and 1 therm represents 100,000 BTU. One gallon of gasoline/diesel is equivalent to approximately 125,000/139,000 BTU, respectively, taking into account energy consumed in the refining process.

Environmental Setting

The environmental setting for the project related to electricity, natural gas, and petroleum, including associated service providers, supply sources, and estimated consumption, is discussed below. In summary, in 2022 (the latest calendar year for which data is uniformly available for all three types of energy sources), California's estimated annual energy use included the following:

- Approximately 287,220 gigawatt hours of electricity (California Energy Commission [CEC] 2022a)
- Approximately 2,130 trillion BTU of natural gas (U.S. EIA 2022)

- Approximately 1,479 trillion BTU of gasoline (U.S. EIA 2022)

Electricity

In 2020 the California electric system used 279,510 gigawatt hours (GWh) of electricity (CEC 2022a). San Diego County consumed 19,045 GWh of electricity, approximately 7% of the state's electricity consumption in 2020 (CEC 2022b). The County of San Diego (County) is dedicated to using renewable sources whenever possible and currently generates almost 19,620,591 kWh annually, or 22.56% of the County's annual energy usage (County of San Diego 2022).

The project is within the San Diego Gas and Electric Company (SDG&E) service area. SDG&E provides electricity for residential, commercial, and industrial markets. Estimated annual SDG&E electricity data consumed by customers in 2020 was approximately 17,445 million kWh.

Natural Gas

SDG&E provides natural gas for residential, commercial, and industrial markets throughout San Diego County. In 2022 California consumed about 11,711 million therms of natural gas. San Diego County consumed approximately 522 million therms of natural gas in the same year, accounting for approximately 5% of statewide consumption (CEC 2022c).

Transportation

As of 2015, there are approximately 30 million registered vehicles in California (California Department of Motor Vehicles 2024). Gasoline and other vehicle fuels, including electricity and natural gas, are commercially provided commodities and would be available to the project through commercial outlets. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled (VMT). Market forces have driven the price of petroleum products steadily upward over time, and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible. As a result of and in response to these factors, gasoline consumption within the state has declined in recent years, and availability of other alternative fuels and energy sources have increased (CEC 2022b). Increasingly available and diversified transportation energy resources promote continuing reliable and affordable means to support vehicular transportation within the state. Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by the California Air Resources Board (CARB).

According to the California Department of Tax and Fee Administration (CDTFA), statewide taxable sales figures indicate a total of 13.8 billion gallons of gasoline were sold in 2021 and 3.1 billion gallons of diesel fuel were sold in 2019 (CDTFA 2022).

As of September 23, 2020, Governor Gavin Newsom signed Executive Order (EO) N-79-20, which requires that by 2035, all new cars and passenger trucks sold in California be zero-emission vehicles (California Office of the Governor 2020). Following the order, the CARB will develop regulations to mandate that 100% of in-state sales of new passenger cars and trucks are zero-emission by 2035—a target that would achieve more than a 35% reduction in GHG emissions and an 80% improvement in nitrogen oxide emissions from cars statewide. In addition, the CARB will develop regulations to mandate that all operations of medium- and heavy-duty vehicles shall be 100% zero-emission by 2045 where feasible, with the mandate going into effect by 2035 for drayage trucks.

3.1.2.2 Regulatory Setting

Federal, state, and local agencies regulate energy use and consumption through various means and programs. On the federal level, the U.S. Department of Transportation, U.S. Department of Energy, and U.S. Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the California Public Utilities Commission (CPUC) and CEC are two agencies with authority over different aspects of energy. Relevant federal, state, and local energy-related regulations are summarized below. On the local level, the County has established three long-range planning documents that encourage the use of alternative energy technologies to meet climate planning goals.

Federal Regulations

Federal Energy Policy and Conservation Act

In 1975 Congress enacted the Federal Energy and Policy Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law. In addition to setting increased Corporate Average Fuel Economy (CAFE) standards for motor vehicles, the act also includes the following provisions related to energy efficiency:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022
2. Set a target of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by model year 2020 and directs the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks
3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum. The EPA is responsible for developing and implementing regulations to ensure 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 produces, and other stakeholders.

NHTSA Corporate Average Fuel Economy

The NHTSA's CAFE standards regulate how far vehicles must travel on 1 gallon of fuel. The NHTSA sets CAFE standards for passenger cars and for light trucks (collectively, light-duty vehicles), and separately sets fuel consumption standards for medium- and heavy-duty trucks and engines. The NHTSA also regulates the fuel economy window stickers on new vehicles The final rule establishes standards that would require an industry-wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8% annually for model years 2024 and 2025 and 10% annually for model year 2026 (NHTSA 2024).

State Regulations

California Code of Regulations Title 24, Part 6

The Energy Efficiency Standards for Residential and Nonresidential Buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. California's Building Energy Efficiency Standards are updated on an approximately 3-year cycle. The 2019 standards, adopted on May 9, 2018, went into effect on January 1, 2020, and improve upon existing standards, focusing on three key areas: (1) proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings, (2) updating current ventilation and Indoor Air Quality requirements, and (3) extending California Code of Regulations Title 24, Part 6 to apply to healthcare facilities. The 2019 standards also include several smaller improvements in energy efficiency.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

In January 2009, California Senate Bill (SB) 375, known as the Sustainable Communities and Climate Protection Act, went into effect. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce GHG emissions and other air pollutants. SB 375 tasks the CARB to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies, including, for example, RFS, appliance and lighting efficiency standards, and building energy efficiency.

Pursuant to California Government Code Section 65080(b)(2)(K), an SCS does not (i) regulate the use of land, (ii) supersede the land use authority of cities and counties, or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010 the CARB adopted SB 375 targets for the regional MPOs. The targets for the San Diego Association of Governments (SANDAG) are a 7% reduction in emissions per capita by 2020 and a 13% reduction by 2035.

SANDAG completed and adopted its 2050 RTP/SCS in October 2011. In November 2011, the CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve the CARB's 2020 and 2035 GHG emissions reduction targets for the region. After SANDAG's 2050 RTP/SCS was adopted, a lawsuit was filed by the Cleveland National Forest Foundation and others. In July 2017, the California Supreme Court held that SANDAG's EIR did not have to use EO S-3-05's 2050 goal of an 80% reduction in GHG emissions from 1990 levels as a threshold because the EIR sufficiently informed the public of the potential impacts.

Although the EIR for SANDAG's 2050 RTP/SCS was pending before the California Supreme Court, in 2015, SANDAG adopted the next iteration of its RTP/SCS in accordance with statutorily mandated timelines, and no subsequent litigation challenge was filed. More specifically, in October 2015, SANDAG adopted *San Diego Forward: The Regional Plan*. Like the 2050 RTP/SCS, this planning document meets the CARB's 2020 and 2035 reduction targets for the region (SANDAG 2025). In December 2015, the CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that,

if implemented, the SCS would achieve the CARB's 2020 and 2035 GHG emissions reduction targets for the region.

State of California Energy Action Plan

The CEC and CPUC approved the first *State of California Energy Action Plan* in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided, and identified policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. In 2005 a second energy action plan was adopted by the CEC and CPUC 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. 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.

California Air Resources Board

Over the past 15 years, California has set numerous GHG emission reduction goals (discussed in Section 3.1.4, Greenhouse Gas Emissions). The CARB has implemented numerous GHG regulations with regard to limiting vehicle emissions, which also tend to limit energy use. These include:

- **Statewide Portable Equipment Registration Program (PERP).** This is a voluntary statewide registration program to register portable equipment such as air compressors, generators, concrete pumps, etc. PERP-registered equipment may operate throughout the state without obtaining permits from any of California's 35 air quality management or air pollution control districts. Registration requires that engines meet specific emission standards (CARB 2024a).
- **In-Use Off-Road Diesel-Fueled Fleets Regulation (DOORS on-line reporting system).** The In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation) applies to all self-propelled off-road diesel vehicles, 25 horsepower (hp) or greater, used in California and most two-engine vehicles. This regulation imposes limits on idling, requires a written idling policy, and restricts adding older, less energy efficient, vehicles to fleets. It requires fleets to use only vehicles with Tier3 or Tier 4 engines, which reduce emissions and increase energy efficiency (CARB 2024b).

Local Regulations

San Diego County Air Pollution Control District

The San Diego County Air Pollution Control District (SDAPCD) is a County agency with the authority to regulate stationary, indirect, and area sources of air pollution (e.g., power plants, highway construction, and housing developments) within the San Diego Air Basin.

The SDAPCD has a registration program for portable equipment (District Rule 12.1). The SDAPCD's local registration program was established under District Rule 12.1 and provides a mechanism to allow owners and operators of portable engines and portable equipment units to operate in San Diego County in lieu of obtaining a local Permit to Operate. Portable engines rated at 50 hp or greater and portable equipment units that are not exempt from permitting requirements in accordance with District Rule 11 must obtain a permit either from the state or SDAPCD. Registration requires that engines meet specific emission standards (SDAPCD 2024).

San Diego County General Plan

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) takes steps to address energy by including policies for improving energy efficiency, reducing waste, recycling, and managing water use. The General Plan also seeks to reduce energy consumption through minimizing VMT; approving land use patterns that support increased density in areas where there is infrastructure to support it; creating increased opportunities for transit, pedestrians, and bicycles; and encouraging and approving green building and land development conservation initiatives. Climate change and GHG reduction policies are addressed in plans and programs in multiple elements of the General Plan.

The strategies for reduction of GHG emissions in the General Plan are as follows (County of San Diego 2011a):

- **Strategy A-1:** Reduce vehicle trips generated, gasoline/energy consumption, and GHG emissions.
- **Strategy A-2:** Reduce non-renewable electrical and natural gas energy consumption and generation (energy efficiency).
- **Strategy A-3:** Increase generation and use of renewable energy sources.
- **Strategy A-4:** Reduce water consumption.
- **Strategy A-5:** Reduce and maximize reuse of solid wastes.
- **Strategy A-6:** Promote carbon dioxide consuming landscapes.
- **Strategy A-7:** Maximize preservation of open spaces, natural areas, and agricultural lands.

The Conservation and Open Space Element of the General Plan (County of San Diego 2011b) also includes goals and policies that are designed to reduce GHGs emissions by enhancing the efficiency of energy use in buildings and infrastructure and promoting the use of renewable energy sources and conservation, and other methods of efficiency. The following goals and policies are applicable to the proposed project:

- **GOAL COS-14: Sustainable Land Development.** Land use development techniques and patterns that reduce emissions of criteria pollutants and GHGs through minimized transportation and energy demands, while protecting public health and contributing to a more sustainable environment.
    - **COS-14.1: Land Use Development Form.** Require that development be located and designed to reduce vehicular trips (and associated air pollution) by utilizing compact regional and community-level development patterns while maintaining community character.
    - **COS-14.3: Sustainable Development.** Require design of residential subdivisions and nonresidential development through "green" and sustainable land development practices to conserve energy, water, open space, and natural resources.
    - **COS-14.7: Alternative Energy Sources for Development Projects.** Encourage development projects that use energy recovery, photovoltaic, and wind energy.
- **GOAL COS-15: Sustainable Architecture and Buildings.** Building design and construction techniques that reduce emissions of criteria pollutants and GHGs, while protecting public health and contributing to a more sustainable environment.
    - **COS-15.4: Title 24 Energy Standards.** Require development to minimize energy impacts from new buildings in accordance with or exceeding Title 24 energy standards.
- **GOAL COS-16: Sustainable Mobility.** Transportation and mobility systems that contribute to environmental and human sustainability and minimize GHG and other air pollutant emissions.

- **GOAL COS-17: Sustainable Solid Waste Management.** Perform solid waste management in a manner that protects natural resources from pollutants while providing sufficient, long term capacity through vigorous reduction, reuse, recycling, and composting programs.
    - **COS-17.2: Construction and Demolition Waste.** Require recycling, reduction and reuse of construction and demolition debris.
- **GOAL COS-18: Sustainable Energy.** Energy systems that reduce consumption of non-renewable resources and reduce GHG and other air pollutant emissions while minimizing impacts to natural resources and communities.
    - **COS-18.1: Alternate Energy Systems Design.** Work with San Diego Gas and Electric and non-utility developers to facilitate the development of alternative energy systems that are located and designed to maintain the character of their setting.
- **Goal COS-20, Governance and Administration.** Reduction of community-wide (i.e., unincorporated county) and County operations GHG emissions contributing to climate change that meet or exceed requirements of the Global Warming Solutions Act of 2006, as amended by Senate Bill 32 (as amended, Pavley. California Global Warming Solutions Act of 2006: emissions limit) and Assembly Bill 1279 (2022), to achieve net zero greenhouse gas emissions no later than 2045.
    - **COS-20.1:** Climate Action Plan. Prepare, maintain, and implement a Climate Action Plan for the reduction of community-wide (i.e., unincorporated county) and County operations GHG emissions consistent with the California Environmental Quality Act (CEQA) Guidelines Section 15183.5 (or as amended).
    - **COS-20.2:** GHG Monitoring and Implementation. Establish and maintain a program to monitor GHG emissions attributable to development, transportation, infrastructure, and municipal operations and periodically review the effectiveness of and revise existing programs as necessary to achieve GHG emission reduction objectives.

The project's consistency with applicable General Plan policies is evaluated in Section 3.1.6, Land Use and Planning, of this EIR.

San Diego County 2024 Climate Action Plan

The County has developed the *Final 2024 Climate Action Plan* (2024 CAP) (County of San Diego 2024a), a comprehensive strategy to reduce GHG emissions in its unincorporated communities and from County operations. In July 2024, the Planning Commission recommended adoption of the 2024 CAP to the County Board of Supervisors. On September 11, 2024, the County Board of Supervisors adopted the 2024 CAP (County of San Diego 2025). The 2024 CAP identifies strategies, measures, and actions to meet the County's targets to reduce GHG emissions by 2030 and 2045, consistent with the state's 2022 Scoping Plan for Achieving Carbon Neutrality and legislative GHG reduction targets and demonstrates progress toward the state's 2045 net zero GHG emissions goal. The CAP's attainment of the County's GHG reduction targets is the result of (1) several initiatives to be directly implemented by the County and (2) incorporating GHG reduction features into the construction and operation of development projects (including County-initiated and privately initiated projects).

In order to demonstrate consistency with the 2024 CAP, the County has developed a CAP Consistency Review Checklist (CAP Consistency Checklist). The checklist establishes a two-step process to determine if a project is consistent with the CAP. Step 1 of the checklist evaluates a project's consistency with the growth projections used in the CAP to estimate future GHG emissions from activities in unincorporated areas of San Diego County. Since the CAP uses growth projections based on the adopted General Plan, the first step in determining a project's consistency with the CAP is to demonstrate its alignment with the regional categories and land use designations of the General Plan. All projects must show consistency with

the existing General Plan regional categories, land use designations, and the uses and development density and intensity allowed under the Zoning Ordinance. If a project is consistent with the General Plan, then Step 2 of the checklist should be completed. If a project is not consistent with the regional categories or land use designations of the General Plan, it cannot use the CAP Consistency Checklist for CEQA streamlining. Step 2 of the checklist outlines CAP measures and actions as "consistency requirements" that project proponents must incorporate into their projects to demonstrate compliance with the CAP. Projects are required to show consistency with the CAP requirements or explain why the requirements are not applicable. Appendix H.3 presents the project's 2024 CAP Consistency Checklist.

San Diego County Decarbonization Framework

The San Diego Regional Decarbonization Framework is the County's science-based, holistic approach to guide the region's decarbonization efforts in partnership with the University of California, San Diego School of Global Policy and Strategy and the University of San Diego Energy Policy Initiatives Center and Inclusive Economics.

Recognizing the need for a regional approach to addressing climate change, on January 27, 2021, the County Board of Supervisors voted to create a Regional Decarbonization Framework (County of San Diego 2021). This framework is intended to inform their collective future actions on reducing GHG emissions in the San Diego region. It is intended to supplement climate action planning efforts that are currently underway and chart collaborative pathways to implement their regional goals.

SDG&E's Current Long-Term Procurement Plan

The service area energy and peak demand forecasts used in SDG&E's long-term procurement plan (SDG&E 2024) reflect the CEC's final 2007 Integrated Energy Policy Report forecast and the underlying assumptions (e.g., self-served load, capacity from the California Solar Initiative, energy efficiency) are equivalent to those used in the adopted CEC forecast. According to the CEC's forecast, load growth is forecasted to grow at approximately 1% annually after energy efficiency and self-served load. The CEC's forecast is then split between bundled load and direct access load. SDG&E's forecasted bundled load percentage is based on 2008 Local Capacity Requirement.

SANDAG Regional Energy Strategy

SANDAG's *Regional Energy Strategy Update* (SANDAG 2014) serves as the energy policy blueprint for the San Diego region through 2050 and identifies the following priority early implementation actions, essential to meeting the region's energy goals:

- Pursue a comprehensive building retrofit program to improve efficiency and install renewable energy systems;
- Create financing programs to pay for projects and improvements that save energy;
- Utilize the SANDAG-SDG&E Local Government Partnership to help local governments identify opportunities and implement energy savings at government facilities and throughout their communities;
- Support land use and transportation planning strategies that reduce energy use and GHG emissions;
- Support planning of electric charging and alternative fueling infrastructure; and
- Support the use of existing unused reclaimed water to decrease the amount of energy needed to meet the water needs of the San Diego region.

The *Regional Strategy Energy Update* identifies the main strategy drivers, including the state's preferred loading order for meeting new energy needs and global climate change and its policy implications. The CPUC and CEC adopted a preferred loading order to meet the goals for satisfying the state's growing demand for electricity, which would place top priority on increasing energy efficiency and demand response (i.e., temporary reduction or shift in energy use during peak hours), generating new energy from renewable and distributed generation resources, and improvements to clean fossil-fueled generation and infrastructure. Environmental changes caused by climate change are anticipated to have an increasing impact on energy production and peak demand for electricity.

San Diego County Renewable Energy Plan

The *County of San Diego Renewable Energy Plan* (County of San Diego 2019) researches and develops renewable energy options in San Diego County. The planning effort covers the residential, commercial, and industrial sectors of San Diego County, with a particular focus on unincorporated areas, and presents a comprehensive approach to renewable energy and energy efficiency. One of the goals of the renewable energy plan is to increase the use of grid-supplied energy sourced from renewable power (County of San Diego 2019).

Mountain Empire Subregional Plan

The project site is located within the Mountain Empire Subregion in the Boulevard Subregional Planning Area boundary. The following goals and policies in the *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (County of San Diego 2013) are relevant to energy:

- **GOAL CM 8.6:** Local residential scale renewable energy projects that are technically feasible and environmentally sensitive
    - **Policy CM 8.6.1:** Encourage the use of existing right-of-way when construction of new transmission lines is required, where technically and economically feasible. Additionally, encourage existing right-of-way over new right-of-way alignments for construction of new transmission lines, when existing right-of-way is insufficient.
    - **Policy CM 8.6.2:** Encourage the use of solar and residential scale wind turbines.

3.1.2.3 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

The County's guidelines for determining significance do not explicitly address energy. Therefore, for the purposes of this EIR, the determinations of significance of project impacts are based on the State CEQA Guidelines, Appendix G Issues VI.a and VI.b and other applicable policies, and regulations. This applies to both the direct impact analysis and the cumulative impact analysis. A significant impact would result if the project

- Results in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- Conflicts with or obstruct a state or local plan for renewable energy or energy efficiency.

To ensure that energy implications are considered in project decisions, Appendix F, Energy Conservation, of the State CEQA Guidelines was used to identify the potential energy implications of the project. The following list of energy impact possibilities and potential conservation measures are analyzed below:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle, including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the project on regional and local energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Consumption of Energy Resources, During Project Construction or Operation

Guidelines for the Determination of Significance

The project would be considered to have a significant effect on energy if the effects

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Analysis

Construction

Energy use during construction typically involves the use of motor vehicles for transportation of workers and materials, motorized equipment for direct construction actions, and temporary electric power. Natural gas would not be required during construction of the project. The amount of electricity used during construction would be minimal; typical demand would stem from the use of electrically powered hand tools and several construction trailers by managerial staff during the hours of construction and decommissioning activities (7 a.m. to 7 p.m.).

The majority of the energy used during construction would be from petroleum to power vehicles and motorized equipment. Construction activities would require the use of diesel fuel, gasoline, and other fuels. Standard construction equipment would be used during construction, including earthmoving equipment (e.g., bulldozers, excavators, backhoes) and road-building equipment (e.g., compactors, scrapers, graders). Construction equipment would include air compressors, all-terrain passenger vehicles, backhoes, cranes, a drill rig, flat-bed trucks, a front-end loader, pick-up trucks, a pile driver, a trencher, and water trucks. Heavy-duty construction equipment would rely on diesel fuel. It is anticipated that construction workers would travel up to 60 miles per trip to and from the project and rely on gasoline-powered vehicles. Since the use of gasoline and diesel fuel would be a significant portion of construction costs, contractors would minimize the use of fuel within the constraints of project requirements. Cut and fill would be balanced on-site, minimizing haul truck trips and associated fuel consumption. Due to the short-term nature of the construction activities and the total amount of diesel and gasoline fuel anticipated to be consumed, the project's consumption of energy (primarily diesel fuel) during construction would not represent a substantial demand on energy resources or result in the need to develop any new, or alter any existing, energy production or distribution facilities. Consuming energy to construct a renewable energy project to reduce the state's GHG emissions from energy is not wasteful, inefficient, or unnecessary.

Therefore, construction-related energy would not be used in a wasteful, inefficient, or unnecessary manner and impacts related to energy use would be **less than significant**.

Operation

The project would construct a solar energy generation and storage facility, which would produce renewable solar energy over the project's lifetime. The project would produce up to approximately 100 megawatts (MW) of solar energy and would include 217.4 MW of alternating current (AC) energy storage in the proposed battery energy storage system (BESS). The power produced by the solar facility would interconnect into Boulevard substation via an underground generation-tie line. The project would generate more energy than it would use during operation. Electricity for operations associated with the project would be supplied by SDG&E. During operation, the project would have motion-detection security lighting at entrances. Energy would be used for remote monitoring, periodic maintenance, washing of solar panels (anticipated to be once per year), inspection, and repair activities when needed. Maintenance trucks would be utilized to perform routine maintenance, including, but not limited to, equipment testing, monitoring, repair, routine procedures to ensure service continuity, and standard preventive maintenance. These activities would require the use of petroleum.

The project would not be expected to have any significant effect on regional or local energy supplies and would not adversely affect peak and base period demands for electricity or other forms of energy. The project would generate more energy than it would demand, and would provide an alternative to fossil fuel generation of electric power. Therefore, the project's generation of renewable energy would far exceed the project's electricity demand and would not result in a wasteful or unnecessary use of electricity, and impacts would be **less than significant**.

Conflict with a State or Local Plan

Guidelines for the Determination of Significance

The project would be considered to have a significant effect on energy if the effects

- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Analysis

The project would adhere to all energy efficiency requirements during construction, including registration requirements of the CARB and SDAPCD, idling requirements, and engine efficiency requirements, as required by law.

The project would also be consistent with the 2024 CAP and would help the County achieve the CAP's goals related to increased renewable energy generation (see Appendix H.3). The project directly implements the County's Renewable Energy Plan, Energy Vision Goal, and Action E-3 of the 2024 CAP, which seeks to increase renewable energy use, generation, and storage in unincorporated areas of San Diego County (County of San Diego 2024a). The County's 2015–2020 Strategic Energy Plan included energy efficiency standards for new development, renewable energy generation, water conservation measures, transportation measures to reduce trips and VMT, and waste diversion programs (County of San Diego 2015). This plan serves as a companion document to the County's General Plan and provides the framework for land-based policy decisions to improve energy efficiency in existing and future development. While many of the regulations regarding energy efficiency, such as those associated with increasing building efficiency are not relevant to the project, the project is consistent with the goal of increasing renewable energy generation. As the project would increase the availability of renewable energy and comply with all requirements during construction, **no impact** would occur.

3.1.2.4 Cumulative Impact Analysis

Cumulative, Consumption of Energy Resources

Potential cumulative impacts on energy would result if the project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. This could result from development that would not incorporate sufficient building energy efficiency features, would not achieve building energy efficiency standards, or would result in the unnecessary use of energy during construction, decommissioning, and/or operation. Projects that would mostly include construction, such as transportation infrastructure or renewable energy projects, could also contribute to a cumulative impact; however, the impact of these projects would be limited because they would not typically involve substantial ongoing energy use. Other large renewable energy generation projects would result in an increase in regional renewable energy supply (see Figure 1-13 and Table 1-4, in Chapter 1.0, Project Description, Location, and Environmental Setting, of this EIR). Therefore, the project would have a **less than cumulatively considerable** impact to the wasteful or inefficient use of energy.

Cumulative, Conflicts with a State or Local Plan

As described in Section 3.1.2.3, Analysis of Project Effects and Determination as to Significance, the project would not result in wasteful, inefficient, or unnecessary use of energy given the project's minimal energy use and large-scale production of renewable energy.

Given the project would generate renewable energy over its lifetime, the project would not contribute to a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. This includes substantial demand on energy resources or services such that new regional energy facilities would be required to be constructed as a result of the incremental increase in energy demand resulting from the project. The project would also be consistent with the 2024 CAP and would help achieve the County's goals related to increased renewable energy generation (see Appendix H.3). Furthermore, the project would generate additional renewable energy itself, reducing the need for non-renewable energy-generating facilities and increasing the amount of clean energy available to consumers in the region. Therefore, the project would have **a less than cumulatively considerable** impact with respect to significant cumulative impacts related to the wasteful or inefficient use of energy.

3.1.2.5 Conclusion

Consumption of Energy Resources, During Project Construction or Operation

Due to the short-term nature of the construction activities and the total amount of diesel and gasoline fuel anticipated to be consumed, the project's consumption of energy during construction would not represent a substantial demand on energy resources or result in the need to develop any new, or alter any existing, energy production or distribution facilities. During operations, the project would produce up to approximately 100 MW of solar energy and would include 217.4 MW of AC energy storage in the proposed BESS. The project would generate more energy than it would demand, would not be expected to have any significant effect on regional or local energy supplies, and would not adversely affect peak and base period demands for electricity or other forms of energy. Therefore, energy use during project construction and operational would not be used in a wasteful, inefficient, or unnecessary manner and impacts would be **less than significant**.

Conflict with a State or Local Plan

The project would produce renewable solar energy over the project's lifetime and would be consistent with the General Plan goal of increasing renewable energy generation. Additionally, the project would be consistent with the 2024 CAP (see Appendix H.3). Therefore, the project would result in a **less than significant** impact.

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3.1.3 Geologic Hazards, Soils, and Paleontological Resources

This section of the Environmental Impact Report (EIR) discusses potential impacts to geologic hazards, geology, soils, and paleontological resources resulting from implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project:

- *Preliminary Geotechnical Site Evaluation Report* (Bruin Geotechnical Services, Inc. 2022) (Appendix F of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding potential erosion impacts on surrounding areas as a result of the project. These concerns are addressed in this section of the EIR where applicable, and within the *Preliminary Geotechnical Site Evaluation Report* (see Appendix F). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.3.1 Existing Conditions

Regional Geology

The project site is located in southeast San Diego County, which makes up part of the Peninsular Ranges geomorphic province. This province extends from the Los Angeles Basin south to Baja California and is characterized by mountain ranges as high as 11,000 feet above mean sea level (amsl) and valleys containing coastal plains, rivers, and basins.

The Peninsular Ranges batholith in San Diego County consists of plutonic igneous rocks which formed from the cooling of magma deep below the surface during the Cretaceous to Jurassic age. These plutons also contain small pieces of older metamorphosed rocks which formed under high heat and pressure. The plutonic rocks in the region come in two general groupings: plutons that have undergone ductile deformation (i.e., bending and folding of the rock layers under intense pressure) that have been radiometrically dated to older than 105 million years old (Ma); and a second group that is chiefly undeformed and generally younger than 105 Ma (see Appendix F). The older, deformed plutons underlie the western and central parts of San Diego County and can generally be identified regionally by steeply dipping contacts (i.e., tightly folded layers), foliation (i.e., a structural alignment or layering of minerals), and the axial surfaces of folds (i.e., the overall shape of the folds). An exception to this regional structure occurs in the Tonalite of La Posta which underlies the proposed project site entirely (see Appendix F).

Normal faulting accompanied by a relatively small component of right lateral separation has continued through today in the Elsinore and San Jacinto Fault Zones. San Diego County is seismically active and includes a series of sub-parallel faults that are located to the west of the San Andreas Fault Zone, including the active San Jacinto, Elsinore, and Rose Canyon Fault Zones.

Project Site Geology

The project site can be found on the El Cajon U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle. Elevations on-site range from approximately 3,400 feet amsl in the center along Jewel Valley Road, to approximately 3,700 feet amsl across the site and immediate vicinity. The portion of the project site north of Jewel Valley Road drains to the south (toward Jewel Valley Creek watercourse) and northwest. The portion of the project site south of Jewel Valley Road drains to the north/northwest. The project site, as mapped by the USGS and California Geological Survey, is underlain by mostly crystalline bedrock (see

Appendix F). Alluvial material is described as light brown alluvial gravel, sand and silt and emanates from streambeds, washes, and alluvial fans. The alluvium on-site consists of silty coarse-grained sand and may represent distal portions of older alluvial fan or sheet wash deposits.

Geologic mapping depicts that the region is underlain by soil units of the Peninsular Ranges batholith, which consist of plutonic rocks of Jurassic and Cretaceous age that contain minor inclusions of metamorphosed rocks (Figure 3.1.3-1 and Figure 3.1.3-2) (see Appendix F). The project site is underlain by the early to late Cretaceous Tonalite of La Posta. The La Posta loamy coarse sand is composed of hypersthene-biotite tonalite, quartz diorite, granodiorite, quartz monzodiorite, and quartz norite (see Appendix F). It is medium-grained, has somewhat excessive drainage, and has equigranularity with weak foliation (Natural Resources Conservation Service [NRCS] 2025). The unit is described as dark gray on fresh surfaces, weathers reddish or buff-gray, and typically forms boulder outcrops. The unit is homogeneous and generally inclusion-free.

Seismic Hazards

Earthquake-related geologic hazards pose a significant threat to San Diego County and can impact extensive regions of land (County of San Diego 2011a). Earthquakes can produce fault rupture and strong ground shaking and can trigger landslides, rockfalls, soil liquefaction, tsunamis, and seiches. In turn, these geologic hazards can lead to other hazards such as fires, dam failures, and toxic chemical releases.

Primary effects of earthquakes include violent ground motion and sometimes permanent displacement of land associated with surface rupture. Earthquakes can snap and uproot trees or knock people to the ground. They can also shear or collapse large buildings, bridges, dams, tunnels, pipelines, and other rigid structures, as well as damage transportation systems, such as highways, railroads, and airports. Secondary effects of earthquakes include near-term phenomena such as liquefaction, landslides, fires, tsunamis, seiches, and floods. Long-term effects associated with earthquakes include phenomena such as regional subsidence or emergence of landmasses and regional changes in groundwater levels.

Fault Rupture

Fault rupture refers to the displacement of the ground surface along a fault trace, which can endanger life and property if structures or lifeline facilities are constructed on, or cross over, a fault. Rupture of the ground surface along a fault trace typically occurs during earthquakes of approximately magnitude 5 or greater. Faults are classified by the State of California based on the likelihood of generating ground motions and surface rupture. The classification system applies to known faults that have been compiled by numerous researchers through various methods of investigation. The State evaluates faults with documented ground rupture during the past 11,700 years and considers them for inclusion in Earthquake Fault Zones requiring investigation (A-P Zones), which encompass traces of Holocene-active faults, as defined by the State's Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) of 1972. The State's guidance is intended to prohibit developments and structures for human occupancy across the trace of active faults (County of San Diego 2011a).

As shown in Figure 3.1.3-3 of this EIR and in Figure 2.6-1 and Figure 2.6-2 of the *Draft Final Environmental Impact Report for the San Diego County General Plan Update* (General Plan Update EIR) (County of San Diego 2011a), the project site is not within a designated Alquist-Priolo Earthquake Fault Zone. However, the region is seismically active and includes the active San Jacinto and Elsinore Faults, a series of sub-parallel faults that are west of the San Andreas Fault Zone. The nearest known faults to the project site are the Elsinore Fault, approximately 15 miles to the northeast, and the Davies Valley Fault, approximately 16 miles to the east. The project is also within a "near-source shaking zone" or seismic shaking buffer (see Appendix F; USGS 2019). These faults are Quaternary in age and are generally

considered to have little to no potential to generate an earthquake. A specific Fault Rupture Hazards Zone Map from the California Geological Survey (CGS) does not currently exist for the unincorporated Boulevard area (California Department of Conservation [DOC] 2025a).

Ground Shaking

Ground shaking is the earthquake effect that results in the majority of damage. Several factors control how ground motion interacts with structures, making the hazard of ground shaking difficult to predict. Seismic waves propagating through the earth's crust are responsible for the ground vibrations normally felt during an earthquake. Seismic waves can vibrate in any direction and at different frequencies, depending on the frequency content of the earthquake, its rupture mechanism, the distance from the earthquake source (or epicenter) to an affected site, and the path and material through which the waves are moving. The project site is located in a seismically active area typical of Southern California and likely to be subjected to strong ground shaking due to earthquakes on nearby faults (see Appendix F; USGS 2019).

Soil Settlement

Differential soil settlement occurs when supporting soils are not uniform in density or soil type and one portion settles, shrinks, or swells more than the other. Such movement can result in damage to structures, pavement, and subsurface utilities when unaccounted for in design. Based on the subsurface data obtained during the investigation, the on-site soils are relatively uniform and consist of predominantly medium-density soils that are not prone to differential settlement (see Appendix F). Given the sandy soil composition and high drainage, the shrink-swell potential at the project site is low (NRCS 2025). The *County of San Diego Guidelines for Determining Significance – Geologic Hazards* does not identify the project site as having expansive soils (County of San Diego 2007a).

Expansive Soils

Expansive soils can cause soil settlement; certain types of clay soils expand when they are saturated and shrink when dried. Expansive soils can pose a threat to the integrity of structures built on them without proper engineering. The expansion and contraction of the soil varies with the soil moisture content and can be aggravated by the way a property is maintained or irrigated. Human activities can increase the moisture content of the soils and the threat of expansive soil damage. As mapped in Figure 3.1.3-4 of this EIR and in Figure 2.6-5 of the General Plan Update EIR, and as noted in the *Preliminary Geotechnical Site Evaluation Report* (see Appendix F), the potential for expansive soils to be present on the site is low (County of San Diego 2011a). Due to the sandy, granular character of the soils and their low organic content, soils are generally non-plastic and therefore not prone to shrink-swell behavior (NRCS 2025).

Liquefaction

Earthquake-induced ground shaking can be the cause of several significant phenomena, including liquefaction of saturated fine sands and silty sands. Loose soils can transform from a solid to a liquid state because of increased pore pressure during seismic loading. Liquefaction results in a complete loss of strength and can cause structures to settle or even overturn if it occurs in the bearing zone. If liquefaction occurs beneath sloping ground, a phenomenon known as lateral spreading can occur. Due to the poorly sorted and coarse-grained materials that are anticipated to underlie the project site and the absence of a shallow groundwater table, the project site has a low susceptibility to liquefaction (Figure 3.1.3-5) (see Appendix F).

Landslide and Slope Instability

Landslides occur when masses of rock, earth, or debris move down a slope, including rock falls, deep failure of slopes, and shallow debris flows. Landslides are influenced by human activities such as grading and other construction activities, irrigation of slopes, mining activity, etc., and by natural factors such as precipitation, geology/soil types, surface/subsurface flow of water, and topography. They may be triggered by other hazards such as floods and earthquakes. Landslides can result from surface movement at rates that vary from a few centimeters per day to tens of meters of instantaneous movement. In contrast, creep is the imperceptibly slow, steady, downward movement of slope-forming soil or rock. Creep can occur seasonally, where movement is within the depth of soil affected by seasonal changes in soil moisture and soil temperature, or can be continuous or progressive. Rock falls or topples are usually sudden and occur on steep slopes. In a rock fall, rocks may fall, bounce, or roll down the slope. A topple occurs when part of a steep slope breaks loose and rotates forward.

The most common cause of a landslide is downslope gravitational stress applied to slope materials (overly steep natural slopes, cliffs, human-made cuts and fills, etc.). Another common cause includes excessive rainfall or irrigation on a cliff or slope. A type of soil failure is slope wash, from the erosion of slopes by surface water runoff. Earthquakes can trigger rockfalls, rock avalanches, debris flows, or other types of potentially damaging landslide movements. Seismic-induced landslides can occur under a broad range of conditions that include (1) steeply sloping to nearly flat land; (2) bedrock, unconsolidated sediments, or fill; and (3) dry to very wet conditions.

As shown in Figure 2.6-4 of the General Plan Update EIR (County of San Diego 2011a) and noted in the *Preliminary Geotechnical Site Evaluation Report* (see Appendix F), the project site is not within an area mapped for landslide hazards.

Seiches and Tsunamis

A seiche is a standing wave in a completely or partially enclosed body of water. A seiche can occur from seismic ground shaking or by the sudden movement of a landslide into a reservoir. A seiche could result in localized flooding or damage to low-lying areas adjacent to large bodies of water. Areas located along the shoreline of lakes or reservoirs are susceptible to inundation by a seiche. The size of a seiche and affected inundation area is dependent on different factors, including the size and depth of the water body, elevation, source, and, if human-made, the structural condition of the body of water in which the seiche occurs. It is an unlikely hazard at the project site because nearby water bodies are not big enough to pose a significant threat to public safety, and because most water bodies are reservoirs located in areas with very low development potential. The nearest water body is Lake Domingo, a reservoir approximately 0.75 mile to the southeast.

A tsunami is a series of large waves that are caused by a sudden disturbance that displaces water. Triggers for a tsunami include earthquakes, submarine landslides, volcanic eruptions, or meteor impacts. San Diego County's coastline is largely within incorporated cities and on Camp Pendleton, and tsunamis would not affect lands in the unincorporated county. The project site is 50 miles inland and is not located within a mapped tsunami hazard area (DOC 2011).

Paleontological Resources and Unique Geology

Paleontological and Unique Geology Resource Potential

Paleontological resources are the remains and/or traces of prehistoric life, exclusive of human remains, and include the localities where fossils were collected and the sedimentary rock formations from which they were obtained/derived. The defining character of fossils is their geologic age. Fossils or fossil deposits are

generally regarded as older than 10,000 years. This generally accepted temporal boundary marks the end of the last Late Pleistocene glacial event and the beginning of the current period of climatic amelioration of the Holocene (County of San Diego 2009).

A unique paleontological resource is any fossil or assemblage of fossils, or paleontological resource site or formation that meets any one of the following criteria (County of San Diego 2009):

- Is the best example of its kind locally or regionally
- Illustrates a paleontological or evolutionary principle (e.g., faunal succession; plant or animal relationships)
- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic, paleoecological, paleoenvironmental, or biochronological data)
- Encompasses any part of a "type locality" of a fossil or formation
- Contains a unique or particularly unusual assemblage of fossils
- Occupies a unique position stratigraphically within a formation
- Occupies a unique position, proximally, distally or laterally within a formation's extent or distribution

Based on rock type and location of previously recorded fossils, areas within San Diego County have been assigned to the following categories for potential paleontological resources: high sensitivity, moderate sensitivity, low sensitivity, marginal sensitivity, and zero sensitivity. The County's California Environmental Quality Act (CEQA) guidelines for paleontological resources use these categories to guide the significance determinations for projects under discretionary review.

Most of the county is underlain by geologic formations with no potential, low sensitivity, or marginal sensitivity for paleontological resources (County of San Diego 2009). No resource potential is assigned to geologic formations that are composed entirely of volcanic or plutonic igneous rock, such as basalt or granite, and therefore they do not have any potential for producing fossil remains. The site is mapped Klp: Tonalite of La Posta (early to late Cretaceous) (Todd et al. 2004), which would have no paleontological sensitivity. Tonalite is a plutonic igneous rock, formed deep below the surface from the cooling of molten rock/magma at high heat and high pressure, where organic life could not exist to be fossilized. There would be no impact for paleontological resources. The soils overlying the tonalite bedrock are eroded tonalite, considered gravel, and coarse, sandy loams that are likely too young (i.e., less than 10,000 years old) to preserve fossils and thus have low paleontological sensitivity.

3.1.3.2 Regulatory Setting

Federal Regulations

U.S. Geological Survey Landslide Hazard Program

The USGS created the Landslide Hazard Program in fulfillment of the requirements of Public Law 106-113. The Federal Emergency Management Agency (FEMA) is the responsible agency for the long-term management of natural hazards. The federal government takes the lead role in funding and conducting research, whereas the reduction of losses due to geologic hazards is primarily a state and local responsibility.

Occupational Safety and Health Administration Regulations

Excavation and trenching are among the most hazardous construction operations. The Occupational Safety and Health Administration (OSHA) Excavation and Trenching Standard (29 Code of Federal Regulations 1926.650) 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. In California, the California Occupational Safety and Health Administration (Cal/OSHA) has the responsibility of 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.

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

In 1972, the Alquist-Priolo Act was created with the purpose of providing policies and criteria to assist state agencies, counties, and cities to prohibit development for human occupancy across active faults. The act also aims to increase public safety by minimizing the loss of life due to earthquakes by facilitating seismic retrofitting to strengthen buildings against ground shaking. The Alquist-Priolo Act delineated active faults, which are defined as faults that have ruptured in the past 11,000 years.

The Alquist-Priolo Fault Zones that the State of California has designated along active faults in the unincorporated portion of the San Diego County are as follows:

- Elsinore Fault: north of Pala, Palomar Mountain, Pauma Valley, Lake Henshaw, Julian, Banner Canyon, Mason Valley, Vallecito Valley, and Carrizo Valley
- Earthquake Valley Fault: San Felipe Valley and Sentenac Canyon
- San Jacinto Zone–Coyote Creek Fault: Borrego Valley and Ocotillo Wells

The project site is not located within an Alquist-Priolo Fault Zone (DOC 2025a).

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 (Public Resources Code [PRC] Chapter 7.8, Sections 2690–2699.6) authorizes the DOC and CGS to identify and map areas prone to seismic hazards, including amplified ground shaking, liquefaction, earthquake-induced landslide, surface fault rupture, and tsunami inundation. The purpose of the SHMA is to reduce the threat to public safety and minimize the loss of life and property by identifying and mitigating seismic hazards (DOC 2025a).

The SHMA requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected state agencies, counties, and cities for their use in planning and controlling construction and development (DOC 2025b). The project site is not located within a mapped seismic hazards area (DOC 2025a).

California Building Code

Chapter 16 of the 2019 California Building Code (CBC) establishes minimum design requirements so that the structural components of buildings are proportioned to resist the loads that are likely to be encountered. According to Section 1613 of the CBC, all structures, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to

resist the effects of earthquake motions in accordance with this section. Section 1613 also identifies building requirements that new development must meet to withstand earthquake loads, based on a site's Seismic Design Category, Risk Category, and site soil properties.

Section 1803 of the CBC requires geotechnical investigations in accordance with Section 1803.2 and reporting in accordance with Section 1803.6.

California Public Resources Code Section 5097-5097.6

Requirements for paleontological resource management are included in PRC Division 5, Chapter 1.7, Section 5097.5, which states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

These statutes prohibit the removal, without permission, of any paleontological site or feature from land under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, local agencies are required to comply with PRC Section 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. PRC Section 5097.5 also establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, and district) land.

PRC Section 5097–5097.6 identifies that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands, and it provides for criminal sanctions. This section was amended in 1987 to require consultation with the Native American Heritage Commission whenever Native American graves are found. It is a felony to take or possess remains or artifacts.

Local Regulations

County of San Diego Grading Ordinance

The San Diego County Code of Regulatory Ordinances Title 8, Division 7, Grading, Clearing, and Watercourses (County Grading Ordinance) requires that projects involving grading, clearing, and/or removal of natural vegetation obtain a grading permit, unless the project meets one or more of the exemptions listed in Section 87.202 of the County Grading Ordinance. The grading permit is discretionary and requires compliance with CEQA. Section 87.430 of the County Grading Ordinance provides that the County official (e.g., permit compliance coordinator) may require a paleontological monitor during all or selected grading operations, to monitor for the presence of paleontological resources. If fossils greater than 12 inches in any dimension are encountered, then all grading operations in the area of discovery shall be suspended immediately and not resumed until authorized by the County official. The ordinance also requires immediate notification of the County official regarding the discovery. The County official shall determine the appropriate resource recovery operation, which the permittee shall carry out prior to the County official's authorization to resume normal grading operations.

San Diego County General Plan

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011b) guides future growth in the unincorporated areas of the county and considers projected growth anticipated to occur within various communities. The following goals and policies from the Safety and Conservation and Open Space Elements of the General Plan were determined to be applicable to the proposed project.

Safety Element

The purpose of the Safety Element is to provide safety considerations that will help minimize the risk of personal injury, loss of life, property damage, and environmental damage associated with natural and human-made hazards within the county (County of San Diego 2021a).

The following policies are applicable to the proposed project:

- **S-2.5: Existing Development within Hazard Zones.** Implement warning systems and evacuation plans for developed areas located within known hazard areas (i.e., flood, wildfire, earthquake, other hazards).
- **S-8.1: Development Location.** Locate development in areas where the risk to people or resources is minimized. In accordance with the DOC Special Publication 42, require development be located a minimum of 50 feet from active or potentially active faults, unless an alternative setback distance is approved based on geologic analysis and feasible engineering design measures adequate to demonstrate that the fault rupture hazard would be avoided.
- **S-8.2: Engineering Measures to Reduce Risk.** Require all development to include engineering measures to reduce risk in accordance with the CBC, Uniform Building Code (UBC), and other seismic and geologic hazard safety standards, including design and construction standards that regulate land use in areas known to have or potentially have significant seismic and/or other geologic hazards.
- **S-9.1: Landslide Risks.** Direct development away from areas with high landslide, mudslide, or rockfall potential when engineering solutions have been determined by the County to be infeasible.
- **S-9.2: Risk of Slope Instability.** Prohibit development from causing or contributing to slope instability.
- **S-10.2: Floodplain Maps.** Manage development based on federal floodplain maps. County maps shall also be referred to, and in case of conflict(s) between the County floodplain maps and the federal floodplain maps, the more stringent of restrictions shall apply.
- **S-10.3: Development in Floodplains.** Limit development in designated floodplains to decrease the potential for property damage and loss of life from flooding and to avoid the need for engineered channels, channel improvements, and other flood control facilities. Require development to conform to federal floodproofing standards and siting criteria to prevent flow obstruction.
- **S-10.4: Development in Flood Hazard Areas.** Require development within mapped flood hazard areas to be sited and designed to minimize on- and off-site hazards to health, safety, and property due to flooding.

Conservation and Open Space Element

The primary focus of the Conservation and Open Space Element is to provide direction to future growth and development in the county with respect to conservation, management, and use of natural and cultural

resources, protection and preservation of open space, and provision of park and recreation resources (County of San Diego 2011c).

The following policies are applicable to the proposed project:

- **COS-9.1: Preservation.** Require the salvage and preservation of unique paleontological resources when exposed to the elements during excavation or grading activities or other development processes.
- **COS-9.2: Impacts of Development.** Require development to minimize impacts to unique geological features from human-related destruction, damage, or loss.

County Special Study Zones

The Alquist-Priolo Act provides that a city or county may establish more restrictive policies than those within the Alquist-Priolo Act, if desired. The County established Special Study Zones that include late-Quaternary faults mapped by the CGS in San Diego County. Late-Quaternary faults (movement during the past 700,000 years) were mapped based on geomorphic evidence similar to that of Holocene faults except that tectonic features are less distinct. As indicated by the CGS, these faults may be younger, but the lack of younger overlying deposits precludes more accurate age classification. The County treats traces of faults within Special Study Zones as active unless a fault investigation proves otherwise. Before any construction is allowed, a geologic study must be conducted to determine if any active fault lines are located on or within the vicinity of the project site. For areas where active faulting is identified, the County's Fault Displacement Area Regulations apply. These regulate new development in areas subject to potential loss of life and property from earthquake fault displacement in order to mitigate such losses. The project site is not within a County Special Study Zone (County of San Diego 2007a).

San Diego County Grading Ordinance, Design Standards and Performance Requirements

Chapter 4 of the County Grading Ordinance (Sections 87.401 through 87.430) includes requirements for

- the maximum slope allowed for cut and fill slopes,
- the requirement for drainage terraces on cut or fill slopes exceeding 40 feet in height,
- expansive soil requirements for cuts and fills,
- minimum setback requirements for buildings from cut or fill slopes, and
- reporting requirements including a soil engineer's report and a final engineering geology report by an engineering geologist.

This would include specific approval of the grading as affected by geological factors.

San Diego County Zoning Ordinance, Sections 5400–5440, Fault Displacement Area Regulations

The Fault Displacement Area Regulations implement the requirements of the Alquist-Priolo Act. The provisions of Sections 5400–5406 outline the allowable development, the permitting requirements, and the construction limitations within Fault Rupture Zones, as designated by the Alquist-Priolo Act. The County prohibits the following uses within Alquist-Priolo Zones (Section 5404, Zoning Ordinance): uses containing structures with a capacity of 300 persons or more, uses with the potential to severely damage the environment or cause major loss of life, and specific civic uses. Given the location of the project site

outside a Alquist-Priolo Fault Zone, the Fault Displacement Area Regulations are not applicable to the proposed project.

San Diego County Natural Resource Inventory, Section 3 – Geology

The County of San Diego Environmental Development Agency's Natural Resource Inventory discusses geologic provinces and the features that are unique to each of them. The inventory also makes some preliminary recommendations as to the preservation of specific sites for many of the unique geologic features identified by the inventory. This inventory was compiled in the early 1970s and few copies are known to still exist. However, the list of unique geologic features presented in the Conservation Element of the General Plan was copied directly from the inventory.

3.1.3.3 Analysis of Project Effects and Determination as to Significance

The following significance thresholds for geologic hazards are taken from the *Guidelines for Determining Significance – Geologic Hazards* (County of San Diego 2007a). A significant impact would occur if the project would result in any of the following:

- The project proposes any building or structure to be used for human occupancy over or within 50 feet of the trace of an Alquist-Priolo fault or County Special Study Zone fault.
- The project proposes the following uses within an Alquist-Priolo Zone, which are prohibited by the County:
    - Uses containing structures with a capacity of 300 people or more;
    - Uses with the potential to severely damage the environment or cause major loss of life;
    - Specific civic uses, including police and fire stations, schools, hospitals, rest homes, nursing homes, and emergency communication facilities.
- The project would be located within a County Near-Source Shaking Zone or within Seismic Zone 4 and the project does not conform to the UBC.
- The project site has potential to directly or indirectly cause potential substantial adverse effects because:
    - the project site has potentially liquefiable soils; and
    - the potentially liquefiable soils are saturated or have the potential to become saturated; and
    - in-situ soil densities are not sufficiently high to preclude liquefaction.
- The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.
- The project is located on a geologic unit or soil that is unstable or would become unstable as a result of the project, potentially resulting in an on-site or off-site landslide.
- The project site lies directly below or on a known area subject to rockfall, which could result in collapse of structures.
- The project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), and does not conform with the Uniform Building Code, creating direct or indirect risks to life or property.

The County's *Guidelines for Determining Significance – Geologic Hazards* (County of San Diego 2007a) do not contain a significance criterion that addresses adequate soils for septic systems or other on-site wastewater systems. However, the following analysis is provided to address Issue VII.e in the State CEQA Guidelines, Appendix G (14 California Code of Regulations 15000 et seq.), which states that a significant impact would result if:

- The project would have soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

The following significance thresholds for unique geology are taken from the *Guidelines for Determining Significance – Unique Geology* (County of San Diego 2007b). A significant impact would result if the project would result in any of the following:

- The project, as designed, will materially impair a unique geologic feature by destroying or altering those physical characteristics that convey the uniqueness of the resource. A geologic feature is unique if it meets one of the following criteria:
    - Is the best example of its kind locally or regionally;
    - Embodies the distinctive characteristics of a geologic principle that is exclusive locally or regionally;
    - Provides a key piece of geologic information important in geology or geologic history;
    - Is a "type locality" of a formation;
    - Is a geologic formation that is exclusive locally or regionally;
    - Contains a mineral that is not known to occur elsewhere in the County; or
    - Is used repeatedly as a teaching tool.

The following significance threshold for paleontological resources is taken from the *Guidelines for Determining Significance – Paleontological Resources* (County of San Diego 2009). A significant impact would result if the project would result in any of the following:

- The project proposes activities directly or indirectly damaging to a unique paleontological resource or site. A significant impact to paleontological resources may occur as a result of the project, if project-related grading or excavation will disturb the substratum or parent material below the major soil horizons in any paleontologically sensitive area of the County.

Fault Rupture

Guidelines for the Determination of Significance

The *Guidelines for Determining Significance – Geologic Hazards* (County of San Diego 2007a) specifies that a significant impact would result if:

- The project proposes any building or structure to be used for human occupancy over or within 50 feet of the trace of an Alquist-Priolo fault or County Special Study Zone fault.
- The project proposes the following uses within an Alquist-Priolo Zone, which are prohibited by the County:

- Uses containing structures with a capacity of 300 people or more;
- Uses with the potential to severely damage the environment or cause major loss of life;
- Specific civic uses, including police and fire stations, schools, hospitals, rest homes, nursing homes, and emergency communication facilities.

Analysis

As discussed in Section 3.1.3.1, Existing Conditions, the proposed project would not be located in a County Special Study Zone (County of San Diego 2007a), a fault rupture hazard zone identified by the Alquist-Priolo Act, or within any other area with substantial evidence of an active or potentially active fault. As mapped in Figure 3.1.3-3, the nearest known faults to the project site are the Elsinore Fault, approximately 15 miles to the northeast, and the Davies Valley Fault, approximately 16 miles to the east. In addition, the proposed project does not include any building or structure to be used for human occupancy (the project would be remotely operated), uses with the potential to severely damage the environment or cause major loss of life, or specific civic uses. Therefore, the project would have **a less than significant** impact from the exposure of people or structures to adverse effects from a known fault rupture hazard zone.

Ground Shaking

Guidelines for the Determination of Significance

For the purposes of this EIR, the *County of San Diego Guidelines for Determining Significance – Geologic Hazards* (County of San Diego 2007a) applies to both the direct impact analysis and the cumulative impact analysis. The County has developed Significance Guideline 4.2, Ground Shaking, to address Issue VII.a.ii in the State CEQA Guidelines, Appendix G. A significant impact would result if:

- The project would be located within a County Near-Source Shaking Zone or within Seismic Zone 4 and the project does not conform to the UBC.

Analysis

All of San Diego County is located within Seismic Zone 4 (Section 1629.4.1 of the CBC), which is the highest seismic zone and, like most of Southern California, is subject to ground shaking (County of San Diego 2007a). However, as discussed in Section 3.1.3.1, Existing Conditions, the project site is not within a near-source shaking zone identified on a County geologic hazard map, a County Special Study Zone fault, or within mapped seismic hazards area (County of San Diego 2007a: Figures 2 and 3; DOC 2025a). However, the project site could be subject to strong ground shaking in the event of a large earthquake on any of the active or potentially active faults in the greater Southern California region. The nearest known fault to the project site is the Elsinore Fault, located approximately 15 miles to the northeast.

The primary tool that seismologists use to describe potential for future ground shaking hazards is a probabilistic seismic hazard assessment. The probabilistic seismic hazard assessment for California takes into consideration the range of possible earthquake sources (including worst-case scenarios) and estimates their characteristic magnitudes to generate a probability map for ground shaking (USGS 2019), expressed as a percentage of g, with g being the acceleration of a falling object due to gravity. The peak ground acceleration (PGA), which represents the shaking or ground motion from an earthquake, is estimated to be approximately 0.522 g (see Appendix F) (USGS 2019).[1] This represents a 2% chance of occurring in the

[1] The PGA for a given component of motion is the largest value of horizontal acceleration obtained from a seismograph. PGA is expressed as a percentage of g, the constant value of acceleration due to gravity (approximately 980 centimeters per second squared). Unlike measures of magnitude, which provide a single measure of earthquake energy, PGA resulting from an

next 50 years (i.e., equivalent to a 1 in 2,475 annual chance). Such levels of ground shaking have in the past been associated with Modified Mercalli Intensity of VI (strong), which can cause damage in old brick and unreinforced-masonry-type structures but only minor damage to newer buildings constructed in accordance with modern building standards. Building codes currently in effect are intended to prevent substantial damage and structural collapse of buildings in "design earthquakes," which are usually equivalent to earthquakes with a 10% chance of occurring in the next 50 years (USGS 2019).

As the project would consist of a solar energy generation and storage facility and would not be used for human occupancy, the public safety implications of damage or collapse of these structures would be negligible. The project site would be off limits to the public and would have security fencing approximately 7 feet high surrounding the entire facility. The surrounding properties are beyond the range of any impact from structural toppling of the panel arrays.

To ensure the structural integrity of the project features, the project would conform to the seismic design requirements as outlined within the CBC, which contains universal standards for proper site preparation and grading practices, adequate design of foundation, and guidelines for the appropriate selection and use of construction materials. The agency that enforces the CBC is the County Department of Planning and Development Services, which reviews applications for building permits for compliance with the CBC, local amendments to the CBC, and development regulations of the County Zoning Ordinance.

In accordance with the County Grading Ordinance (County Code Section 87.209), as part of the development review process, the County may require a soil investigation report. The report would include (1) data regarding the nature, distribution, and strength of existing soils and rock on the site; (2) the soil engineer's conclusions and recommendations for grading requirements, including the correction of weak or unstable soil conditions and treatment of any expansive soils that may be present; and (3) their opinions as to the adequacy of building sites to be developed by the proposed grading operations. A preliminary version of such a report has been prepared (see Appendix F); the recommendations contained therein will be refined as necessary based on final designs and incorporated into the project's plans and specifications as a condition of final project approval. Further details regarding soils would be included in the final soils report, which would be prepared as site and facility design advances, and which must be approved by a County Official as part of the grading permit process (County Grading Ordinance Section 87.102).

The project site is not within a near-source shaking zone and would be required to comply with state and local building and grading standards. Substantial adverse effects from strong seismic ground shaking would be avoided or reduced to acceptable levels. Potential adverse effects from strong seismic ground shaking would therefore be **less than significant.**

Liquefaction

Guidelines for the Determination of Significance

For the purposes of this EIR, the *County of San Diego Guidelines for Determining Significance – Geologic Hazards* (County of San Diego 2007a) applies to both the proposed project impact analysis and the cumulative impact analysis. The County has developed Significance Guideline 4.3, Liquefaction, to address the State CEQA Guidelines, Appendix G, Issue VII.a.iii and the portion of Issue VII.c that addresses on-site and off-site lateral spreading or liquefaction. A significant impact would result if:

- The project site has potential to directly or indirectly cause potential substantial adverse effects because:

earthquake varies from place to place, depending on distance from the earthquake epicenter and character of the underlying geology (e.g., hard bedrock, soft sediments, or artificial fills).

- the project site has potentially liquefiable soils; and
- the potentially liquefiable soils are saturated or have the potential to become saturated; and
- in-situ soil densities are not sufficiently high to preclude liquefaction.

Analysis

As discussed above in the analysis of ground shaking, the project vicinity could be subject to strong levels of seismic shaking in the future. As indicated in the significance criteria, an area that has low in situ soil densities (which typically include loose sandy soils) and a shallow or perched groundwater table has the potential to liquefy if subject to a strong earthquake. The most severe liquefaction effects occur when the thickness of loose sandy soils is high and when those soils are saturated close to the ground surface; however, the potential for liquefaction to occur in any given area is highly dependent on site-specific conditions. Typical effects of liquefaction include sinking foundations, tilting structures, and rupture and/or substantial damage to underground utility lines.

As stated in Section 3.1.3.1, Existing Conditions, the concern for liquefaction is low due to the soil composition found during geotechnical studies (very dense silty sands) and historical findings for groundwater depths (approximately 25 feet below ground surface) (see Appendix F). As shown in the General Plan Update EIR, the project site is not within a mapped liquefaction area (County of San Diego 2011a: Figure 2.6-3).

To ensure the structural integrity of the project features, the project would conform to the seismic design requirements as outlined within the CBC, which contains universal standards for proper site preparation and grading practices, adequate design of foundation, and guidelines for the appropriate selection and use of construction materials. The agency that enforces the CBC is the County Department of Planning and Development Services, which reviews applications for building permits for compliance with the CBC, local amendments to the CBC, and development regulations of the County Zoning Ordinance. Therefore, the impact associated with liquefaction is considered **less than significant.**

Landslides

Guidelines for the Determination of Significance

For the purposes of this EIR, the *County of San Diego Guidelines for Determining Significance – Geologic Hazards* (County of San Diego 2007a) applies to both the direct impact analysis and the cumulative impact analysis. The County has developed Significance Guideline 4.4, Landslides, to address the State CEQA Guidelines, Appendix G, Issue VII.a.iv and the portion of Issue VII.c that relates to on-site or off-site landslide or collapse. A significant impact would result if:

- The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.
- The project is located on a geologic unit or soil that is unstable or would become unstable as a result of the project, potentially resulting in an on-site or off-site landslide.
- The project site lies directly below or on a known area subject to rockfall, which could result in collapse of structures.

Analysis

As discussed in Section 3.1.3.1, Existing Conditions, the project site is not within a landslide susceptibility area. The topography of the site has rolling hillsides and is underlain by crystalline bedrock, which is not typically prone to substantial slope failure in areas that are not steeply sloped. The project is not located within an identified landslide susceptibility area, and the geologic environment has a low probability of becoming unstable.

The project involves site grading for installation of a solar energy generation and storage facility that would result in the creation of areas of cut and areas underlain by fill. To ensure that any proposed structures (including those proposed on the project site) are adequately supported (whether on native soils, cut, or fill), a soils investigation report is required as part of the building permit process. The soils investigation report must make recommendations on the design of building foundation systems and demonstrate that a proposed building meets the structural stability standards required by the CBC and the local grading ordinance. As previously noted, a preliminary version of such a report has been prepared (see Appendix F); the geotechnical recommendations contained therein will be refined as necessary based on final designs and incorporated into the project's plans and specifications as a condition of final project approval.

Grading plans must be compliant with standards in the County Grading Ordinance addressing the stability, incline, and compaction of cuts and fills. Additionally, during trenching and excavation, the proposed project would be required to comply with OSHA standards to protect slopes and prevent cave-ins and other hazards related to soil stability, such as landslides and rock falls. The County must approve the soils investigation report before issuing a building permit. With this standard requirement, the project would have a **less than significant** impact from the exposure of people or structures to potential adverse effects from landslides.

Expansive Soils

Guidelines for the Determination of Significance

For the purposes of this EIR, the *County of San Diego Guidelines for Determining Significance – Geologic Hazards* (County of San Diego 2007a) applies to both the direct impact analysis and the cumulative impact analysis. The County has developed Significance Guideline 4.5, Expansive Soils, to address Issue VII.d in the State CEQA Guidelines, Appendix G. A significant impact would result if:

- The project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), and does not conform with the Uniform Building Code, creating direct or indirect risks to life or property.

Analysis

As discussed in Section 3.1.3.1, Existing Conditions, the project site is not located in an area identified as having expansive soils as determined by the County guidelines for geologic hazards (County of San Diego 2007a). However, the project would be designed in accordance with the seismic design requirements of the CBC, which contains universal standards for seismically sound site preparation and grading practices, foundation design, and guidelines for the appropriate selection and use of construction materials. As recommended in the *Preliminary Geotechnical Site Evaluation Report*, on-site soils would be removed, compacted, and leveled prior to placing foundations, structures, utilities, or roadbeds (see Appendix F). If encountered, consistent with standard practices required by the CBC, potentially expansive soils can be treated or mixed with other materials to reduce their expansive potential to acceptable levels. Implementation of these standard practices, as required by the CBC and local ordinances, would ensure that potential impacts on the project due to expansive soils would be **less than significant.**

Adequate Soils for Septic Systems or Other On-Site Wastewater Systems

Guidelines for the Determination of Significance

The *County of San Diego Guidelines for Determining Significance – Geologic Hazards* (County of San Diego 2007a) and the *County of San Diego Guidelines for Determining Significance – Hydrology and Water Quality* (County of San Diego 2021b) do not contain a significance criterion that addresses adequate soils for septic systems or other on-site wastewater systems. Therefore, for the purpose of this EIR, Appendix G of the State CEQA Guidelines applies to the direct and indirect impact analysis, as well as the cumulative impact analysis. A significant impact would result if:

- The project would have soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Analysis

The project does not include any septic or on-site wastewater systems. During construction, portable sanitary facilities would be located in the project area and maintained by a local contractor. The project would be unoccupied and would have no permanent employees on-site; therefore, these facilities are not required. As such, there would be **no impact**.

Paleontological Resources and Unique Geology

Guidelines for the Determination of Significance

The *County of San Diego Guidelines for Determining Significance – Geologic Hazards* (County of San Diego 2007a), *County of San Diego Guidelines for Determining Significance – Paleontological Resources* (County of San Diego 2009), and *County of San Diego Guidelines for Determining Significance – Unique Geology* (County of San Diego 2007b) contain a significance criterion that addresses paleontological resources and unique geology. The following analysis is provided to address Issue VII.f in the State CEQA Guidelines, Appendix G. A significant impact would result if:

- The project proposes activities directly or indirectly damaging to a unique paleontological resource or site.
- The project, as designed, will materially impair a unique geologic feature by destroying or altering those physical characteristics that convey the uniqueness of the resource.

Analysis

Paleontological resource impacts occur through the destruction or alteration of a paleontological resource or site by grading, excavation, trenching, boring, tunneling or other activity that disturbs the subsurface geologic formation. Excavation operations are the most common ways for paleontological resources to be adversely impacted and can result in the permanent loss of resources and valuable information. The most extensive excavation impacts are usually associated with mass grading, where earthmovers are used in combination with bulldozers to rip and transport soil and bedrock. Front-end loaders, track hoes, and trucks can also be used in mass excavation operations. Smaller amounts of earth are moved during boring, trenching, and tunneling, and typically the impacts are less extensive. Indirect impacts to paleontological resources could include destruction or loss of surface fossils from increased erosion, increased human access to the area, and non-scientific or unauthorized surface collection or subsurface excavation of a fossil or paleontological site. The analysis of potential impacts to paleontological resources resulting from implementation of the project is based on a review of the County's paleontological resources maps (County of San Diego 2007a) and the underlying geologic unit at the project site. The site is mapped Klp: Tonalite

of La Posta (early to late Cretaceous) (Todd et al. 2004), which would have no paleontological sensitivity. The soils overlying the tonalite bedrock consist of eroded tonalite, considered gravel, and coarse, sandy loams that are likely too young (i.e., less than 10,000 years old) to preserve fossils and thus have low potential for producing fossils.

Construction of the project would involve clearing and grubbing of the existing vegetation within the project site. Approximately 561 acres throughout the site would be disturbed. Grading would also be required throughout some portions of the project site. Grading is expected to be balanced on-site, with approximately 350,000 cubic yards of cut redistributed across the site. Clearing and grubbing would be required for construction and access to the project site. Approximately 5,000 cubic yards of rock would be blasted during the early stages of excavation and mass grading for Phase I and Phase II. Clearing and grubbing activities are unlikely to disturb paleontological resources, if present, because they would affect young surface soil horizons only, which have low potential to contain significant paleontological resources.

Based on the results of this assessment and the paleontological sensitivities of the geologic units in the project site, ground-disturbing activities associated with the project are expected to remain in deposits with no or low paleontological sensitivity. Therefore, impacts to scientifically significant paleontological resources or unique geology from project activities would be **less than significant**.

3.1.3.4 Cumulative Impact Analysis

Fault Rupture

Due to the site-specific nature of geological conditions (i.e., soils, geological features, subsurface features, seismic features, etc.), geological impacts are typically assessed on a project-by-project basis. The projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting, and other future development projects would be subject to established guidelines and regulations pertaining to building design and seismic safety. These include those set forth in the CBC, the County Building Code, and the County Grading Ordinance, which applies to the properties adjacent to and surrounding the project site, as well as site-specific geotechnical evaluations that would identify potential effects related to the underlying geologic and soil conditions for a particular related project site.

With the adherence to the applicable regulations of County Building Code (and future updates to the building code, when they occur) as discussed above and any site-specific recommendations included in Appendix J, the project and related projects would not result in significant impacts related to geological and soil conditions. As such, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** to geotechnical or soils-related hazards.

Ground Shaking, Liquefaction, Landslides, and Expansive Soils

Potential geologic and soils impacts associated with the project are restricted to potential facility damage from earthquake-related ground shaking, liquefaction, landslides, and expansive soils. In all cases, the impacts were determined to be **less than significant** because the existing regulatory framework controlling the design and construction of structures in California, as well as actions required to obtain a grading and/or development permits at the local level, are sufficient to avoid or substantially reduce the potential impacts. All other projects in the cumulative scenario would be required to comply with the same or similar sets of laws, regulations, and ordinances.

Other projects, that in combination with the project could result in a greater severity or extent of liquefaction (during an earthquake) than would have been anticipated in the project-specific analysis, would be those that (1) permanently saturate previously dry soils, (2) result in a sustained rise of the local groundwater

table, and/or (3) perform grading or earthmoving operations that would use liquefiable soils as fill. For effects to compound, other projects in the cumulative scenario would have to be overlapping or in the immediate vicinity of the project. In accordance with the CBC, as well as state and local building and grading regulations, use of liquefiable soil for fill material is prohibited where the material would be saturated. Further, none of the other projects in the cumulative scenario (Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting) would result in substantial changes in the local or regional groundwater table. Therefore, the project in combination with cumulative projects **would not result in a cumulatively considerable impact** related to seismic hazards.

As all projects in the cumulative scenario would be designed in accordance with seismic design criteria as required by the CBC and with other specific design criteria from state and local building and grading regulations, the project **would not result in a cumulatively considerable impact** related to ground shaking, liquefaction, landslides, and expansive soils.

Adequate Soils for Septic Systems or Other On-Site Wastewater Systems

The project does not include any septic or on-site wastewater systems. Therefore, the project **would not result in a cumulatively considerable impact** related to adequate soils for septic tanks or on-site wastewater systems.

Paleontological Resources and Unique Geology

Cumulative projects would have the potential to result in a cumulative impact associated with paleontological resources from extensive grading, excavation, or other ground-disturbing activities that are performed in an area of high or moderate sensitivity. Cumulative projects on state or public lands would be required to comply with PRC Sections 5097–5097.6 pertaining to impacts to paleontological resources. As discussed in Section 3.1.3.1, Existing Conditions, the project site is located in an area that has no or low potential for the presence of paleontological resources. Therefore, the proposed project **would not result in a cumulatively considerable impact** related to paleontological resources.

3.1.3.5 Conclusion

Fault Rupture

The project's impacts associated with fault rupture are **less than significant**.

Ground Shaking

The project's impacts associated with ground shaking are **less than significant**.

Liquefaction

The project's impacts associated liquefaction are **less than significant**.

Landslides

The project's impacts associated with landslides are **less than significant**.

Expansive Soils

The project's impacts associated with expansive soils are **less than significant**.

Adequate Soils for Septic Systems or Other On-Site Wastewater Systems

The project would have **no impact** related to septic systems or other wastewater systems.

Paleontological Resources and Unique Geology

The project's impacts associated with paleontological resources and unique geology are **less than significant.**

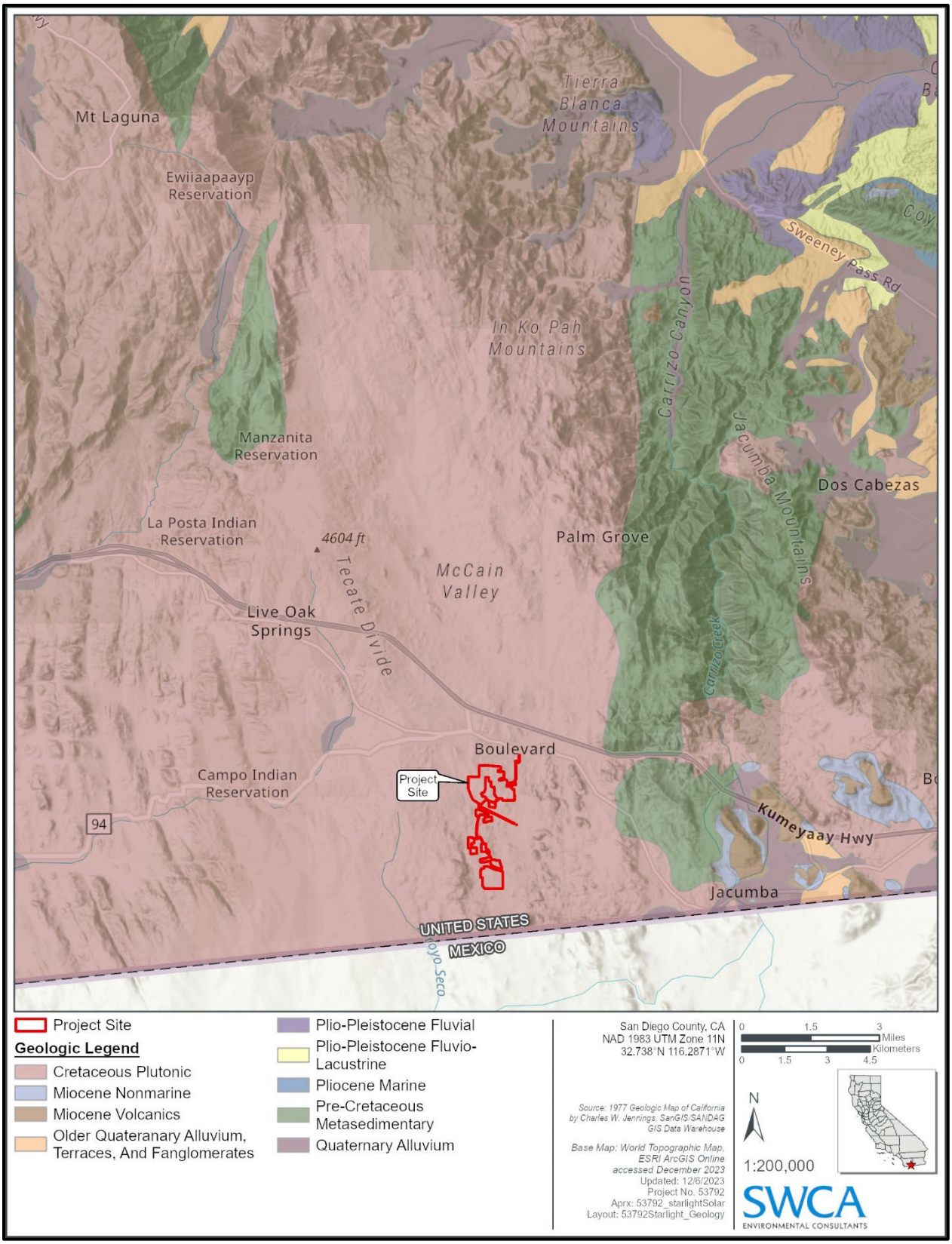

Figure 3.1.3-1. Regional Geology

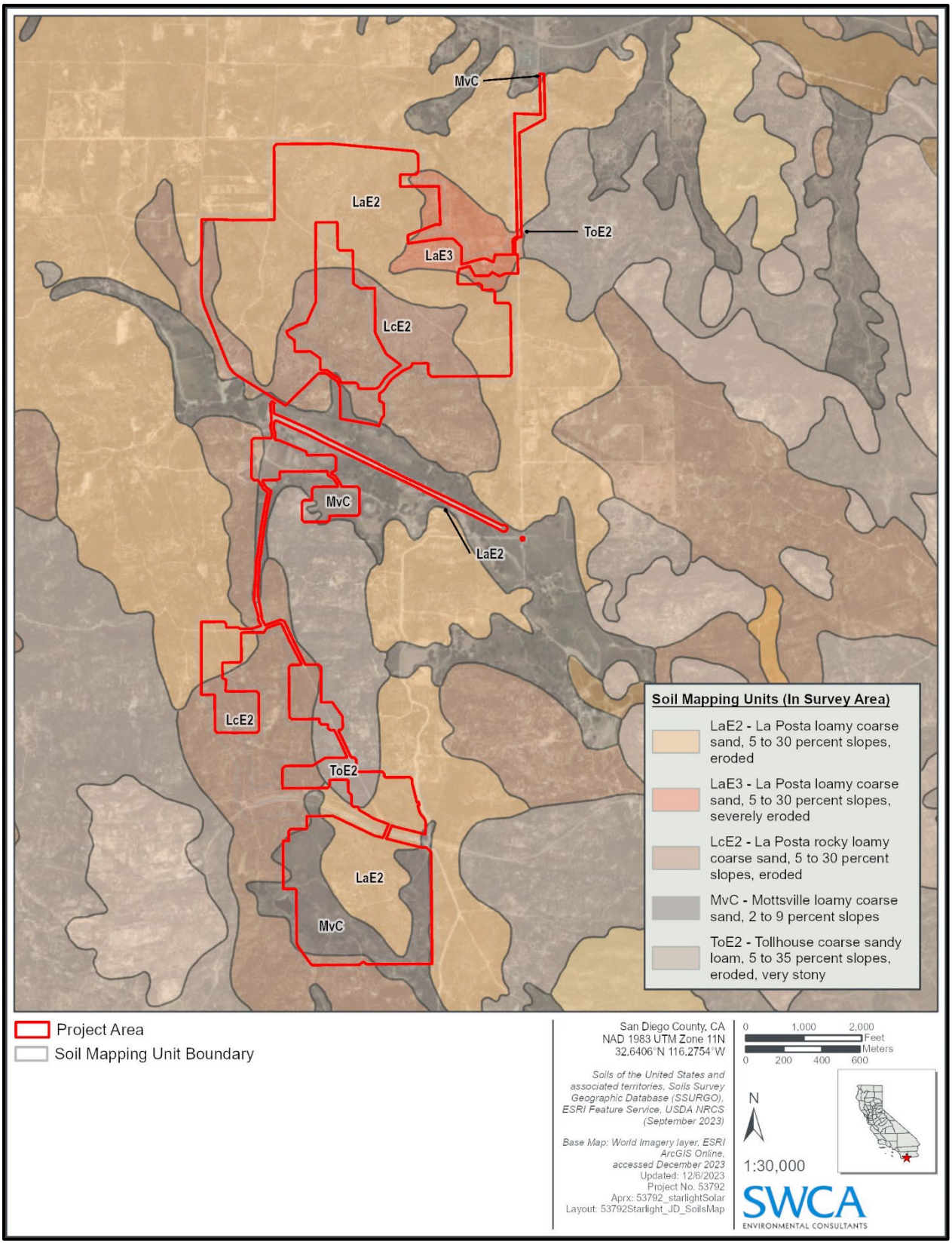

Figure 3.1.3-2. Regional Soil Mapping

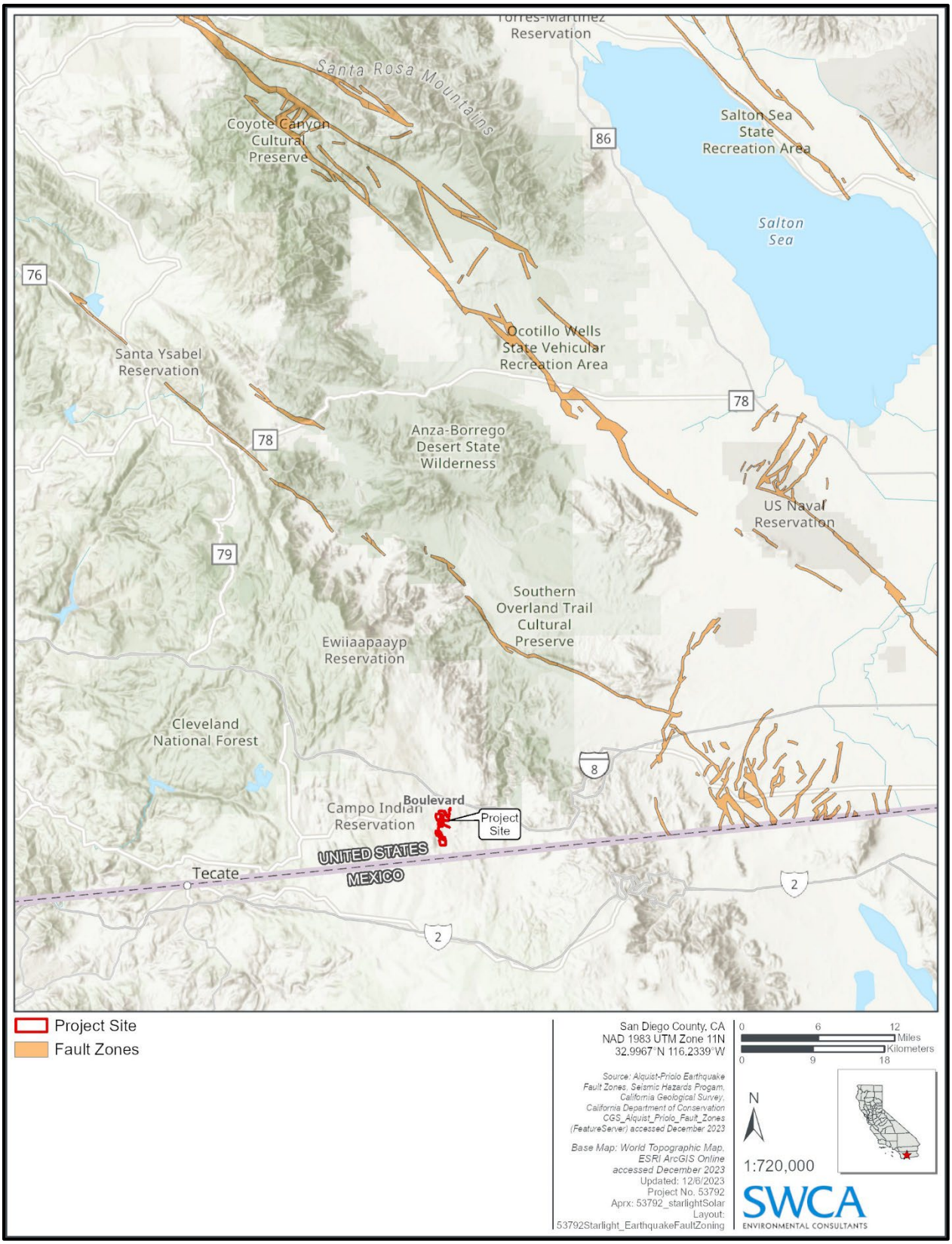

Figure 3.1.3-3. Earthquake Fault Zones

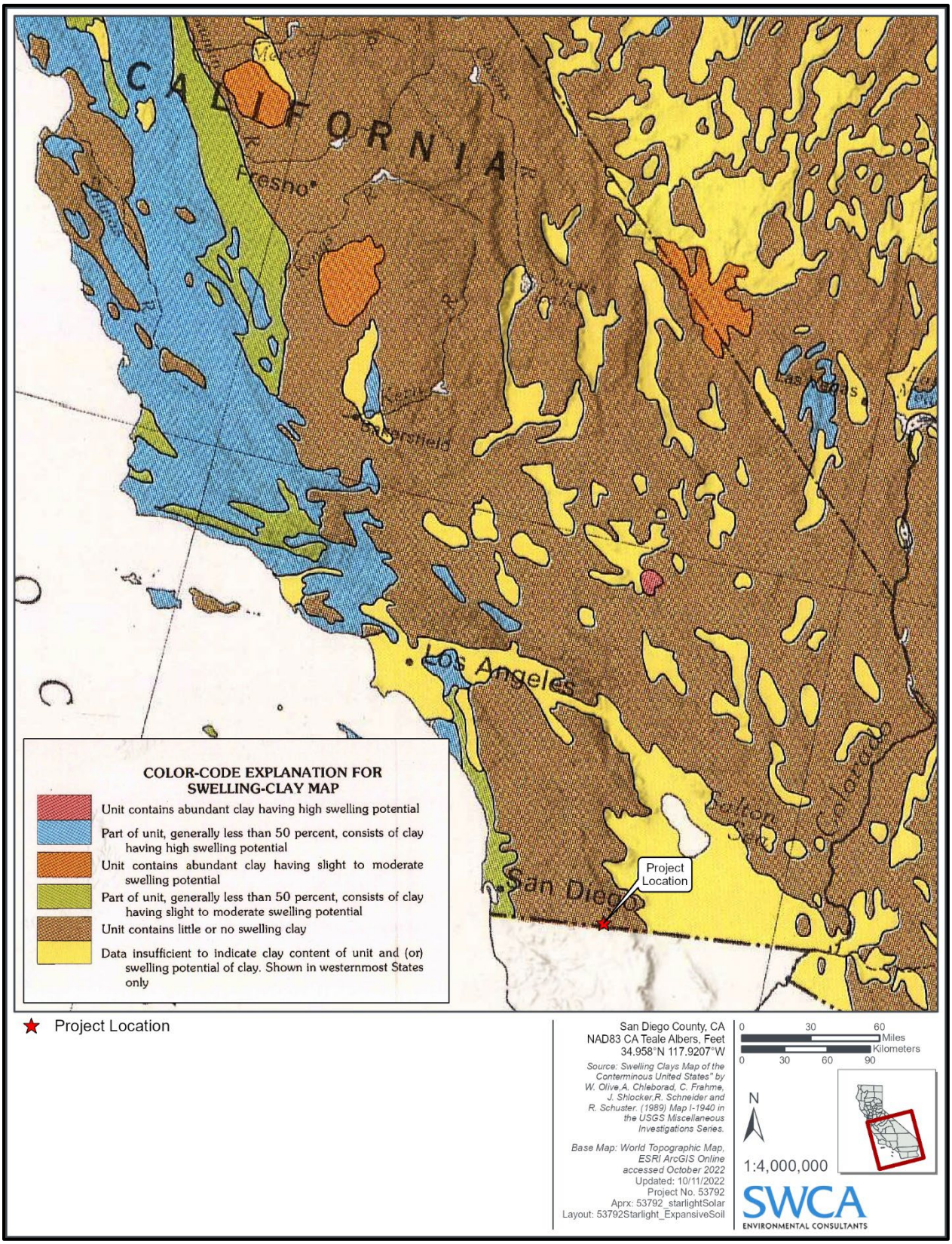

Figure 3.1.3-4. Expansive Soils

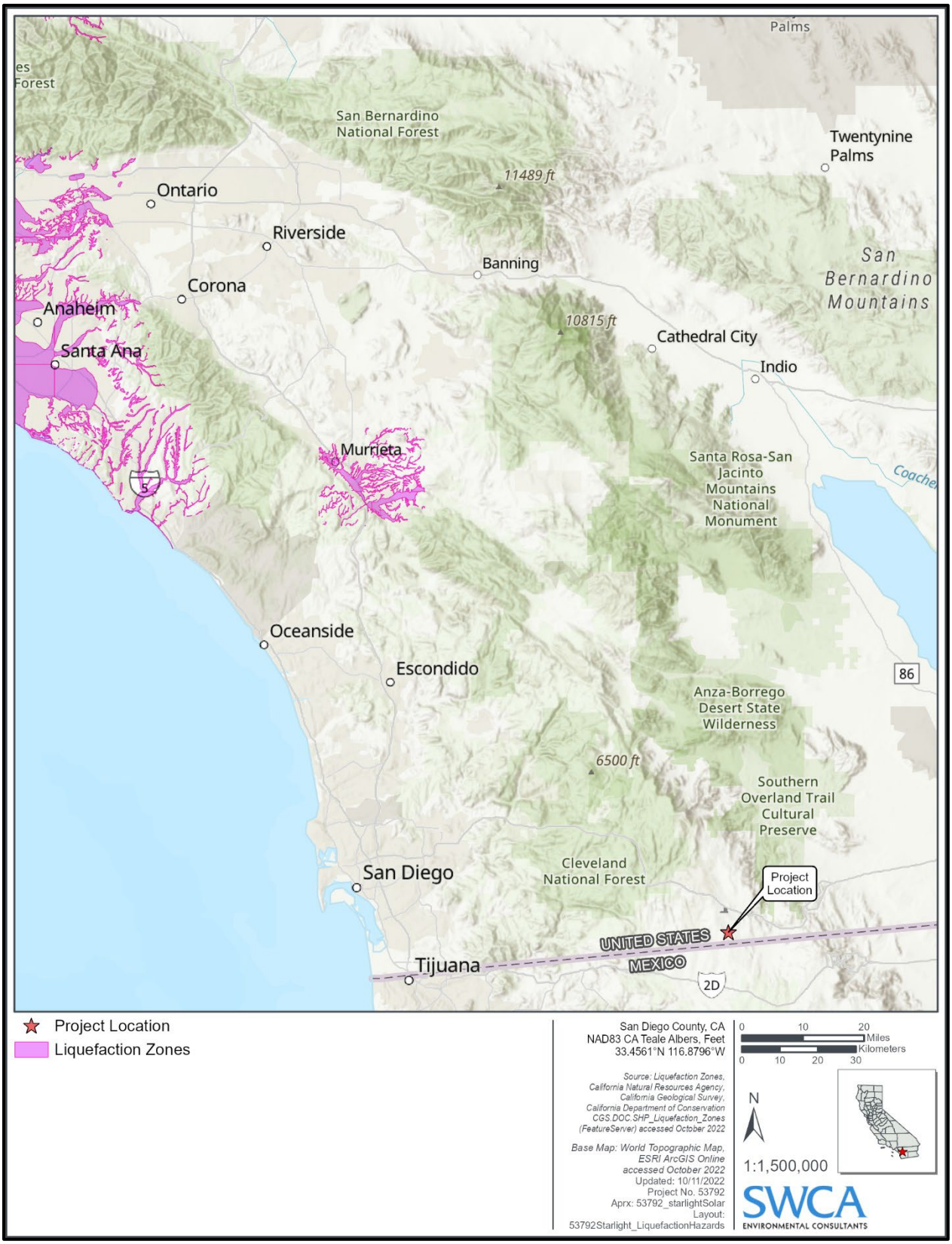

Figure 3.1.3-5. Liquefaction Zones

3.1.4 Greenhouse Gas Emissions

This section of the Environmental Impact Report (EIR) evaluates the environmental effects of greenhouse gas (GHG) emissions that may result directly or indirectly from the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the proposed project, which were prepared in accordance with the *Final 2024 Climate Action Plan* (2024 CAP) (County of San Diego 2024a) and the *2024 CAP Consistency Checklist and Guidelines for Determining Significance* (County of San Diego 2024b):

- *Starlight Solar Air Quality and Greenhouse Gas Technical Study* (Yorke Engineering, LLC 2024a) (Appendix H.1 of this EIR)
- *Starlight Solar Project – Air Quality and Greenhouse Gas Technical Study Memorandum – Project Design Update* (Yorke Engineering, LLC 2024b) (Appendix H.2 of this EIR)
- *2024 Climate Action Plan Consistency Review Checklist for Starlight Solar* (SWCA Environmental Consultants [SWCA] 2025) (Appendix H.3 of this EIR)
- *Starlight Solar Project – Air Quality and Greenhouse Gas Technical Study Memorandum – Fugitive Dust Control Measures Update* (Yorke Engineering, LLC 2025) (Appendix H.4 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the evaluation of the cumulative GHG impacts of the project. These concerns are addressed in this section of the EIR where applicable. Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.4.1 Existing Conditions

This section describes the existing setting in the project area and identifies the resources that could be affected by the project.

Climate Change

Global climate change refers to the changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and storms. Global warming, a related concept, is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of GHGs that keep the Earth's surface warm by trapping heat in the Earth's atmosphere, in much the same way as glass traps heat in a greenhouse. The Earth's climate is changing because human activities, primarily the combustion of fossil fuels, are altering the chemical composition of the atmosphere through the buildup of GHGs. GHGs are released by the combustion of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect. Although climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy.

Regarding the adverse effects of global warming, as reported by AB 32, California Global Warming Solutions Act of 2006: "Global warming poses a serious threat to the economic well-being, public health, natural resources and the environment of California" (California Air Resources Board [CARB] 2006). Over the past few decades, the energy intensity of the national and state economy has been declining due to the shift to a more service-oriented economy. California ranked fifth lowest among the states in carbon dioxide (CO_2) emissions from fossil fuel consumption per unit of gross state product. However, in terms of total

CO_2 emissions, California is second only to Texas in the nation and is the 16th largest source of climate change emissions in the world, exceeding most nations (U.S. Energy Information Administration 2019).

Other states with fewer than 9.5 metric tons (MT) per capita of energy-related CO_2 emissions include California, Massachusetts, Oregon, and Rhode Island. The national average is 16 MT per capita.

Greenhouse Gases

GHGs include CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Carbon is the most abundant GHG. Other GHGs are less abundant but have higher global warming potential (GWP) than CO_2. Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO_2, denoted as carbon dioxide equivalent (CO_2e). Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions. The primary GHGs attributed to global climate change are described below.

Carbon Dioxide

In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals, and plants; volcanic outgassing; decomposition of organic matter; and evaporation from the oceans. Anthropogenic sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Anthropogenic sources of CO_2 amount to over 30 billion tons per year, globally (Friedlingstein et al. 2022). Natural sources release substantially larger amounts of CO_2. However, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of human-made CO_2. Consequently, the gas is building up in the atmosphere.

Methane

CH_4 is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation in livestock, manure management, and rice cultivation are also significant sources of CH_4 in California.

Nitrous Oxide

N_2O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N_2O is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion produce N_2O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

HFCs are used primarily as substitutes for ozone (O_3)-depleting substances regulated under the Montreal Protocol (1987), an international treaty that was approved on January 1, 1989, and was designated to protect the O_3 layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for O_3 depletion. PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and

magnesium casting. There is no primary aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry leads to greater use of PFCs.

The magnitude of the impact on global warming differs among the GHGs. The effect each GHG has on climate change is measured as a combination of the volume of its emissions and its GWP. GWPs are one type of simplified index based upon radiative properties used to estimate the potential future impacts of emissions of different gases upon the climate system, expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2e. GWP are based on a number of factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO_2, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO_2. The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. HFCs, PFCs, and SF_6 have a greater GWP than CO_2. In other words, these other GHGs have a greater contribution to global warming than CO_2 on a per-mass basis. However, CO_2 has the greatest impact on global warming because of the relatively large quantities of CO_2 emitted into the atmosphere.

A summary of the atmospheric lifetime and GWP of selected gases is presented in Table 3.1.4-1. As indicated in this table, GWPs range from 1 to 23,500 based on IPCC assessment reports. IPCC has released three assessment reports (AR4, AR5, and AR6) (IPCC 2007, 2013, 2021) with updated GWPs; however, CARB reports the statewide GHG inventory using the AR4 GWPs, which is consistent with international reporting standards. By applying the GWP ratios, project-related equivalent mass of CO_2, denoted as CO_2e emissions, can be tabulated in MT per year.

Table 3.1.4-1. Global Warming Potentials

Greenhouse Gas	GWP Values for 100-year Time Horizon		
	AR4	AR5	AR6
Carbon dioxide (CO_2)	1	1	1
Methane (CH_4)	25	28	Fossil origin – 29.8 Non-fossil origin – 27.2
Nitrous oxide (N_2O)	298	265	273
Select hydrofluorocarbons (HFCs)	124–14,800	4–12,400	–
Sulfur hexafluoride (SF_6)	22,800	23,500	24,600

Source: IPCC (2007, 2013, 2021)

3.1.4.2 Regulatory Setting

Federal, state, and local agencies regulate energy use and consumption through various means and programs. On the federal level, the U.S. Department of Transportation, the U.S. Department of Energy, and the U.S. Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, CARB and the California Energy Commission (CEC) are two agencies with authority over different aspects of energy. Relevant federal, state, and local energy-related regulations are summarized below.

Federal Regulations

Clean Air Act

At the federal level, the EPA has been charged with implementing the national air quality programs. The backbone of the EPA's air quality mandate is the federal Clean Air Act (CAA) signed into law in 1970 and the subsequent Clean Air Act Amendments (CAAA) of 1977 and 1990. Although the EPA deals primarily with international, national, and interstate air pollution, the CAA and CAAA grant authority to the EPA to regulate air pollution on many levels. On the state level, the EPA is responsible for oversight of a state's air quality programs. In addition, the EPA sets federal vehicle and stationary source emission standards and provides research and guidance for state and regional/local air quality programs.

Under the CAA and CAAA, the EPA established National Ambient Air Quality Standards (NAAQS) for O_3, carbon monoxide (CO), nitrogen dioxide (NO_2), SO_2, and particulate matter 10 microns in diameter or smaller (PM_{10}) and 2.5 microns in diameter or smaller ($PM_{2.5}$). The NAAQS represent the allowable atmospheric concentrations at which the public health and welfare are protected and include a reasonable margin of safety to protect the more sensitive receptors in the population. Since the elimination of lead (Pb) from motor gasoline in the mid-1970s, lead concentrations in ambient air have substantially decreased in most areas. However, elevated lead concentrations can persist in the vicinity of industrial sources, e.g., lead-acid battery recycling and manufacturing, and near general aviation airports because lead is still used to formulate high-octane aviation gasoline for piston engines.

In addition, the CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The CAAA of 1990 requires states containing areas that violate the NAAQS to revise their SIPs to incorporate additional control measures to reduce air pollution.

Federal Greenhouse Gas Policy

The Supreme Court of the United States (SCOTUS) ruled in *Massachusetts v. Environmental Protection Agency*, 127 S.Ct. 1438 (2007), that CO_2 and other GHGs are pollutants under the federal CAA, which EPA must regulate if it determines they pose an endangerment to public health or welfare. SCOTUS did not mandate that EPA enact regulations to reduce GHG emissions. Instead, SCOTUS found that EPA could avoid taking action if it found that GHGs do not contribute to climate change or if it offered a "reasonable explanation" for not determining that GHGs contribute to climate change.

On April 17, 2009, EPA issued a proposed finding that GHGs contribute to air pollution that may endanger public health or welfare. On April 24, 2009, the proposed rule was published in the *Federal Register* under Docket ID No. EPA-HQ-OAR-2009-0171. The EPA stated that high atmospheric levels of GHGs "are the unambiguous result of human emissions and are very likely the cause of the observed increase in average temperatures and other climatic changes." The EPA further found that "atmospheric concentrations of greenhouse gases endanger public health and welfare within the meaning of Section 202 of the Clean Air Act." The findings were signed by the EPA Administrator on December 7, 2009. The final findings were published in the *Federal Register* on December 15, 2009. The final rule was effective on January 14, 2010. Although these findings alone do not impose any requirements on industry or other entities, this action is a prerequisite to regulatory actions by EPA, including, but not limited to, GHG emissions standards for light-duty vehicles.

On July 20, 2011, EPA published its final rule deferring GHG permitting requirements for CO_2 emissions from biomass-fired and other biogenic sources until July 21, 2014. Environmental groups challenged the deferral. In September 2011, EPA released *Accounting Framework for Biogenic CO_2 Emissions from*

Stationary Sources, which analyzes accounting methodologies and suggests implementation for biogenic CO_2 emitted from stationary sources (EPA 2011).

On April 4, 2012, EPA published a proposed rule to establish, for the first time, a new source performance standard for GHG emissions. Under the proposed rule, new fossil fuel–fired generating units larger than 25 megawatts (MW) are required to limit emissions to 1,000 pounds of CO_2 per MW-hour (MWh) on an average annual basis, subject to certain exceptions.

On April 17, 2022, EPA issued emission rules for oil production and natural gas production and processing operations, which are required by the CAA under 40 Code of Federal Regulations (CFR) 60 and 63. The final rules include the first federal air standards for natural gas wells that are hydraulically fractured, along with requirements for several other sources of pollution in the oil and gas industry that currently are not regulated at the federal level.

State Regulations

California Renewables Portfolio Standard

In 2002, Senate Bill (SB) 1078 established California's Renewables Portfolio Standard (RPS) program. The RPS program requires electrical corporations and electric service providers to purchase a specified minimum percentage of electricity generated by eligible renewable energy resources. The bill requires 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. Under SB 1078, each electrical corporation was required to increase its total procurement of eligible renewable energy resources by at least 1% per year so that 20% of its retail sales were procured from eligible renewable energy resources.

In 2006, SB 107 accelerated the RPS program by establishing a deadline of December 31, 2010, for achieving the goal of having 20% of total electricity sold to retail customers in California per year generated from eligible renewable energy resources.

The RPS goal was increased to 33% when Governor Schwarzenegger signed Executive Order (EO) S-14-08 in November 2008. EO S-14-08 was later superseded by EO S-21-09 on September 15, 2009. EO S-21-09 directed CARB to adopt regulations requiring 33% of electricity sold in the state to come from renewable energy by 2020. This EO was superseded by Statute SB X1-2 in 2011, which modified the California RPS program to require that both public- and investor-owned utilities in California receive at least 33% of their electricity from renewable sources by the year 2020. SB 2X1-2 also requires regulated sellers of electricity to meet an interim milestone of procuring 25% of their energy supply from certified renewable sources by 2016.

California Global Warming Solution Act

Over the past 20 years, California has set numerous GHG emission reduction goals. Starting in 2005, Governor Schwarzenegger implemented EO S-3-05, which was codified in Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). AB 32 committed to achieving the following:

- By 2010, reduce to 2000 emission levels
- By 2020, reduce to 1990 emission levels
- By 2050, reduce to 80% below 1990 levels

To achieve these goals, which are consistent with the California Action Team (CAT) GHG targets for 2010 and 2020, AB 32 mandates that CARB establish a quantified emissions cap; institute a schedule to meet the cap; implement regulations to reduce statewide GHG emissions from stationary sources consistent with the CAT strategies; and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. In order to achieve the reductions, AB 32 requires CARB to adopt rules and regulations in an open, public process that achieves the maximum technologically feasible and cost-effective GHG reductions.

SB 32, signed on September 8, 2016, updates AB 32 to include an emissions reduction goal for the year 2030. Specifically, SB 32 requires CARB to ensure that statewide GHG emissions are reduced to 40% below the 1990 level by 2030. The new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

EO B-55-18, issued by Governor Brown in September 2018, establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and achieve and maintain net negative emissions thereafter. Based on this EO, CARB would work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal, as well as ensuring future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

In 2022, Governor Gavin Newsom signed AB 1279, the California Climate Crisis Act. AB 1279 requires the state to achieve net zero GHG emissions (carbon neutrality) as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. The bill also requires California to reduce statewide GHG emissions by 85% compared to 1990 levels and directs CARB to work with relevant state agencies to achieve these goals.

Climate Change Scoping Plan

In 2008, CARB approved the *Climate Change Scoping Plan: a framework for change* (2008 Scoping Plan) (CARB 2008), as required by AB 32. The 2008 Scoping Plan identified a cap-and-trade program as one of the strategies for California to reduce GHG emissions. The cap-and-trade program is a key element in California's climate plan. It sets a statewide limit on sources responsible for 85% of California's GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The cap-and-trade rules came into effect on January 1, 2013, and they apply to large electric power plants and large industrial plants. In 2015, fuel distributors, including distributors of heating and transportation fuels, also became subject to the cap-and-trade rules. At that stage, the program will encompass approximately 360 businesses throughout California and nearly 85% of the state's total GHG emissions. Covered entities subject to the cap-and-trade program are sources that emit more than 25,000 MT CO_2e per year. 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 Greenhouse Gas Emissions.

Under the cap-and-trade regulation, companies must hold enough emission allowances to cover their emissions and are free to buy and sell allowances on the open market. California held its first auction of GHG allowances on November 14, 2012. California's GHG cap-and-trade system has reduced GHG emissions to 1990 levels by the year 2020 and would achieve an approximate 80% reduction from 1990 levels by 2050.

Subsequently, CARB approved updates of the 2008 Scoping Plan in 2014 and 2017, with the 2017 update considering SB 32 (adopted in 2016) in addition to AB 32 (CARB 2014, 2017). The 2014 update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals (to the level of 427 million MT CO_2e) defined in the original 2008 Scoping Plan. It also evaluated how to align

the state's longer-term GHG reduction strategies with other state policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use. In November 2022, the final *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) was released. The 2022 Scoping Plan assesses progress toward the statutory 2030 target and lays out a path to achieving carbon neutrality no later than 2045 (CARB 2022). It also focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the state's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

Senate Bill 97

SB 97 was enacted in 2007. SB 97 required the Governor's Office of Land Use and Climate Innovation (formerly known as the Governor's Office of Planning and Research [OPR]) to develop, and the California Natural Resources Agency (CNRA) to adopt, amendments to the State California Environmental Quality Act (CEQA) Guidelines addressing the analysis and mitigation of GHG emissions (OPR 2008, 2018). Those State CEQA Guidelines amendments clarified several points, including the following:

- Lead agencies must analyze the GHG emissions of proposed projects and must reach a conclusion regarding the significance of those emissions.
- When a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions.
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change.
- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria.
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives.

As part of the administrative rulemaking process, the CNRA developed the *Final Statement of Reasons for Regulatory Action* (CNRA 2009) explaining the legal and factual bases, intent, and purpose of the State CEQA Guidelines amendments. The amendments to the State CEQA Guidelines implementing SB 97 became effective on March 18, 2010. SB 97 applies to any EIR, negative declaration, mitigated negative declaration, or other document required by CEQA, which has not been finalized.

Assembly Bill 197

AB 197, signed on September 8, 2016, is a bill linked to SB 32 that prioritizes efforts to reduce GHG emissions in low-income and minority communities. AB 197 requires CARB to make available, and update at least annually on its website, the emissions of GHGs, criteria pollutants, and toxic air contaminants for each facility that reports to CARB and air districts. In addition, AB 197 adds two members of the legislature to the CARB board as ex officio, non-voting members, and creates the Joint Legislative Committee on Climate Change Policies to ascertain facts and make recommendations to the legislature concerning the state's programs, policies, and investments related to climate change.

Advanced Clean Car Regulations

In 2012, CARB approved the Advanced Clean Cars program, a new emissions control program for model years 2015 through 2025. The components of the advance clean car standards include the Low-Emission Vehicle regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty

vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs, with provisions to also produce plug-in hybrid electric vehicles in the 2018 through 2025 model years period. In March 2017, CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV programs for cars and light trucks sold in California through 2025.

Senate Bill 375

SB 375 requires CARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization for each region must then develop a Sustainable Communities Strategy (SCS) that integrates transportation, land use, and housing policies to plan how it will achieve the emissions target for its region. If the SCS is unable to achieve the regional GHG emissions reductions targets, the Metropolitan Planning Organization is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target can be achieved through alternative development patterns, infrastructure, and/or transportation measures.

As required under SB 375, CARB is required to update regional GHG emission targets every 8 years, with the last update formally adopted in March 2018. As part of the 2018 update, CARB adopted a passenger vehicle–related GHG reduction target of 19% by 2035 for the Southern California Association of Governments region, which is more stringent than the previous reduction target of 13% for 2035.

Local Regulations

San Diego County Air Pollution Control District

The San Diego County Air Pollution Control District (SDAPCD) is a County of San Diego (County) agency with the authority to regulate stationary, indirect, and area sources of air pollution (e.g., power plants, highway construction, and housing developments) within the San Diego Air Basin (SDAB).

The SDAPCD is primarily responsible for the control of air pollution from all sources other than emissions from motor vehicles (mobile sources), which are the responsibility of CARB and the EPA. Under federal and state law, the SDAPCD is required to adopt and enforce rules and regulations to achieve NAAQS and California Ambient Air Quality Standards and implement applicable federal and state laws. Since the passage of the California Clean Air Act and the CAAA, this role has been expanded to include the implementation of transportation control measures and indirect source control programs to reduce mobile source emissions.

SDAPCD Regulation II: Permits; Rule 20.2: New Source Review Non-Major Stationary Sources requires new or modified stationary source units (that are not major stationary sources) with the potential to emit 10 pounds (lbs) per day or more of volatile organic compounds (VOCs), nitrogen oxide (NO_x), sulfur oxide (SO_x), or PM_{10} to be equipped with best available control technology. For those units with a potential to emit above air quality impact assessment trigger levels, the units must demonstrate that such emissions would not violate or interfere with the attainment of any national air quality standard (SDAPCD 2019).

SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions prohibits discharge into the atmosphere, from any single source of emissions whatsoever, any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes that is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997). Construction of the project may result in visible emissions, primarily during earth-disturbing activities, which would be subject to SDAPCD Rule 50. Although visible emissions

are less likely to occur during operation of the project, compliance with SDAPCD Rule 50 would be required during both construction and operation.

San Diego County General Plan

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) takes steps to address energy by including policies for improving energy efficiency, reducing waste, recycling, and managing water use. The General Plan also seeks to reduce energy consumption through minimizing vehicle miles traveled; approving land use patterns that support increased density in areas where there is infrastructure to support it; creating increased opportunities for transit, pedestrians, and bicycles; and encouraging and approving green building and land development conservation initiatives. Climate change and GHG reduction policies are addressed in plans and programs in multiple elements of the General Plan.

The strategies for reduction of GHG emissions in the General Plan are as follows (County of San Diego 2011a):

- Strategy A-1: Reduce vehicle trips generated, gasoline/energy consumption, and GHG emissions.
- Strategy A-2: Reduce non-renewable electrical and natural gas energy consumption and generation (energy efficiency).
- Strategy A-3: Increase generation and use of renewable energy sources.
- Strategy A-4: Reduce water consumption.
- Strategy A-5: Reduce and maximize reuse of solid wastes.
- Strategy A-6: Promote carbon dioxide consuming landscapes.
- Strategy A-7: Maximize preservation of open spaces, natural areas, and agricultural lands.

The General Plan also includes climate adaptation strategies to deal with potential adverse effects of climate change. The climate adaptation strategies include the following (County of San Diego 2011a):

- Strategy B-1: Reduce risk from wildfire, flooding, and other hazards resulting from climate change.
- Strategy B-2: Conserve and improve water supply due to shortages from climate change.
- Strategy B-3: Promote agricultural lands for local food production.
- Strategy B-4: Provide education and leadership.

The County General Plan's Conservation and Open Space Element also includes goals and policies that are designed to reduce GHG emissions by enhancing the efficiency of energy use in buildings and infrastructure, and by promoting the use of renewable energy sources, conservation, and other methods of efficiency. The pertinent goals are identified below (County of San Diego 2011b):

- **Goal COS-14, Sustainable Land Development.** Land use development techniques and patterns that reduce emissions of criteria pollutants and GHGs through minimized transportation and energy demands, while protecting public health and contributing to a more sustainable environment.
    - **COS-14.1: Land Use Development Form.** Require that development be located and designed to reduce vehicular trips (and associated air pollution) by utilizing compact regional and community-level development patterns while maintaining community character.

  - **COS-14.3: Sustainable Development.** Require design of residential subdivisions and nonresidential development through "green" and sustainable land development practices to conserve energy, water, open space, and natural resources.
  - **COS-14.7: Alternative Energy Sources** for Development Projects. Encourage development projects that use energy recovery, photovoltaic, and wind energy.

- **Goal COS-15, Sustainable Architecture and Buildings.** Building design and construction techniques that reduce emissions of criteria pollutants and GHGs, while protecting public health and contributing to a more sustainable environment.
  - **COS-15.4: Title 24 Energy Standards.** Require development to minimize energy impacts from new buildings in accordance with or exceeding Title 24 energy standards.
- **Goal COS-16, Sustainable Mobility.** Transportation and mobility systems that contribute to environmental and human sustainability and minimize GHG and other air pollutant emissions.
- **Goal COS-17, Sustainable Solid Waste Management.** Perform solid waste management in a manner that protects natural resources from pollutants while providing sufficient, long term capacity through vigorous reduction, reuse, recycling, and composting programs.
  - **COS-17.2**: Construction and Demolition Waste. Require recycling, reduction and reuse of construction and demolition debris.
- **Goal COS-18, Sustainable Energy.** Energy systems that reduce consumption of nonrenewable resources and reduce GHG and other air pollutant emissions while minimizing impacts to natural resources and communities.
- **Goal COS-19, Sustainable Water Supply.** Conservation of limited water supply supporting all uses including urban, rural, commercial, industrial, and agricultural uses.
  - **COS-19.1**: Sustainable Development Practices. Require land development, building design, landscaping, and operational practices that minimize water consumption.
- **Goal COS-20, Governance and Administration.** Reduction of community-wide (i.e., unincorporated county) and County operations GHG emissions contributing to climate change that meet or exceed requirements of the Global Warming Solutions Act of 2006, as amended by Senate Bill 32 (as amended, Pavley. California Global Warming Solutions Act of 2006: emissions limit) and Assembly Bill 1279 (2022), to achieve net zero greenhouse gas emissions no later than 2045.
  - **COS-20.1:** Climate Action Plan. Prepare, maintain, and implement a Climate Action Plan for the reduction of community-wide (i.e., unincorporated county) and County operations GHG emissions consistent with the California Environmental Quality Act (CEQA) Guidelines Section 15183.5 (or as amended).
  - **COS-20.2:** GHG Monitoring and Implementation. Establish and maintain a program to monitor GHG emissions attributable to development, transportation, infrastructure, and municipal operations and periodically review the effectiveness of and revise existing programs as necessary to achieve GHG emission reduction objectives.

San Diego County 2024 Climate Action Plan

The County has developed the 2024 CAP Update (County of San Diego 2024a), a comprehensive strategy to reduce GHG emissions in its unincorporated communities and from County operations. In July 2024, the Planning Commission recommended adoption of the final 2024 CAP to the County Board of Supervisors. On September 11, 2024, the County Board of Supervisors adopted the 2024 CAP (County of San Diego 2025). The 2024 CAP identifies strategies, measures, and actions to meet the County's targets to reduce GHG emissions by 2030 and 2045, consistent with the state's 2022 Scoping Plan for Achieving Carbon

Neutrality and legislative GHG reduction targets and demonstrates progress toward the state's 2045 net zero GHG emissions goal. The CAP's attainment of the County's GHG reduction targets is the result of (1) several initiatives to be directly implemented by the County and (2) incorporating GHG reduction features into the construction and operation of development projects (including County-initiated and privately initiated projects).

In order to demonstrate consistency with the 2024 CAP, the County has developed the *2024 Climate Action Plan Consistency Review Checklist for Starlight Solar* (CAP Consistency Checklist). The checklist establishes a two-step process to determine if a project is consistent with the CAP. Step 1 of the checklist evaluates a project's consistency with the growth projections used in the CAP to estimate future GHG emissions from activities in unincorporated areas of San Diego County. Since the CAP uses growth projections based on the adopted General Plan, the first step in determining a project's consistency with the CAP is to demonstrate its alignment with the regional categories and land use designations of the General Plan. All projects must show consistency with the existing General Plan regional categories, land use designations, and the uses and development density and intensity allowed under the Zoning Ordinance. If a project is consistent with the General Plan, then Step 2 of the checklist should be completed. If a project is not consistent with the regional categories or land use designations of the General Plan, it cannot use the CAP Consistency Checklist for CEQA streamlining. Step 2 of the checklist outlines CAP measures and actions as "consistency requirements" that project proponents must incorporate into their projects to demonstrate compliance with the CAP. Projects are required to show consistency with the CAP requirements or explain why the requirements are not applicable. Appendix H.3 presents the CAP Consistency Checklist.

Renewable Energy Plan

The *County of San Diego Renewable Energy Plan* (Renewable Energy Plan) (Brummitt Energy Associates Inc. and Dersch Design & Engineering 2019) presents research for development of renewable energy options in San Diego County. The planning effort covers the residential, commercial, and industrial sectors of San Diego County, with a particular focus on unincorporated areas, and presents a comprehensive approach to renewable energy and energy efficiency.

Boulevard Subregional Plan

The project site is located within the Mountain Empire Subregion in the Boulevard Subregional Planning Area. The following policy from the *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* is relevant to greenhouse gas emissions (County of San Diego 2013):

- **CM 8.6.1**. Encourage the use of existing right-of-way when construction of new transmission lines is required, where technically and economically feasible. Additionally, encourage existing right-of-way over new right-of-way alignments for construction of new transmission lines, when existing right-of-way is insufficient.

3.1.4.3 Analysis of Project Effects and Determination as to Significance

For the purpose of this EIR, Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and the County's *2024 CAP Consistency Checklist and Guidelines for Determining Significance for Climate Change* (County of San Diego 2024b) apply to both the direct impact analysis and the cumulative impact analysis. According to the County Guidelines:

- A proposed project would have a less than significant cumulatively considerable contribution to climate change impacts if it is found to be consistent with the County's Climate Action Plan; and, would normally have a cumulatively considerable contribution to climate change impacts if it is found to be inconsistent with the County's Climate Action Plan.

Consistency with the CAP is determined through the CAP Consistency Review Checklist, which is provided as Appendix 8 to the CAP. The checklist, in conjunction with the CAP, provides a streamlined CEQA review process for proposed discretionary projects. The checklist is the mechanism that is used to demonstrate consistency with the CAP. If a project does not comply with applicable consistency requirements in the checklist, it would be determined to be inconsistent with the CAP (San Diego County 2024b). Therefore, as stated above, the CAP Consistency Checklist (see Appendix H.3) was prepared for the proposed project.

Further, according to Appendix G, significant impact would result if the project would:

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

Methodology

The construction analysis was performed using California Emissions Estimator Model (CalEEMod) version 2022 (California Air Pollution Control Officers Association [CAPCOA] 2022), the official statewide land use computer model designed to provide a uniform platform for estimating potential GHG emissions associated with land use projects under CEQA. The model quantifies direct emissions from construction (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The mobile source emission factors used in the model—published by CARB—include the Pavley standards and Low Carbon Fuel standards. The model also identifies project design features, regulatory measures, and mitigation measures to reduce GHG emissions along with calculating the benefits achieved from the selected measures. CalEEMod was developed by CAPCOA in collaboration with the California air districts. Default land use data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) were provided by the various California air districts to account for local requirements and conditions. As the official assessment methodology for land use projects in California, CalEEMod is relied upon herein for construction and operational emissions quantification, which forms the basis for the impact analysis. Using CalEEMod, direct on-site and off-site and indirect GHG emissions were estimated for the construction phase of the project.

Direct GHG Emissions

GHGs are directly emitted from stationary source combustion of natural gas in equipment such as water heaters, boilers, process heaters, and furnaces. GHGs are also emitted from mobile sources such as on-road vehicles and off-road construction equipment burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas (compressed or liquefied).

Indirect GHG Emissions

Indirect GHG emissions result from electric power generated elsewhere (i.e., power plants) used to operate process equipment, lighting, and utilities at a facility. Also, included in GHG quantification is electric power used to pump the water supply (e.g., aqueducts, wells, pipelines) and disposal and decomposition of municipal waste in landfills (CARB 2017).

Cumulative Nature of Climate Change

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project in the SDAB would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change.

Although the proposed project would result in emissions of GHGs during construction and operation, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally believed that an individual project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory as scientific uncertainty regarding the significance of a project's individual and cumulative effects on global climate change remains.

Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no noncumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). This approach is consistent with that recommended by the CNRA, which noted in its Public Notice for the proposed CEQA amendments (pursuant to SB 97) that the evidence before it indicates that in most cases, the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact (CNRA 2009). Similarly, the *Final Statement of Reasons for Regulatory Action* confirms that an EIR or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009). Accordingly, further discussion of the project's GHG emissions and their impact on global climate are addressed in Section 3.1.4.4.

Indirect and Direct GHG Emissions

Guidelines for the Determination of Significance

According to Appendix G, the project would have a significant impact related to GHG emissions if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment

Analysis

Construction of the project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road vendor trucks, and worker vehicles. Total GHG emissions from all phases of construction activities were amortized over the estimated 30-year life of the project and added to the annual operational emissions of GHGs. The project would offset GHG emissions through renewable energy generation and thereby result in environmental benefits by lessening the impacts of global climate change; as such, the annual displaced GHG emissions were estimated to include all direct and indirect emissions associated with implementation of the project. Project decommissioning emissions were not calculated, as the equipment and fuel types that would exist 30 or more years in the future are unknown. However, it is anticipated that the decommissioning emissions would be lower than the construction emissions.

Construction Emissions

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described (see Appendix H.1 and Appendix H.4). Construction of the project is anticipated to last approximately 18 months. Construction emissions were also amortized over a 30-year project lifetime. On-site sources of GHG emissions include off-road equipment and off-site sources including haul trucks, vendor trucks, and worker vehicles. Table 3.1.4-2 presents the total annual construction GHG emissions of the project.

Table 3.1.4-2. Construction-related Greenhouse Gas Emissions

Greenhouse Gas	Unmitigated Emissions (MT)	Unmitigated Emissions Amortized Over 30 Years (MT/year)
CO_2	3,100	103
CH_4	0.140	0.005
N_2O	0.180	0.006
Total CO_2e	**3,158**	**105**

Source: Yorke Engineering, LLC (2025) (Appendix H.4)

As shown in Table 3.1.4-2, the estimated total GHG emissions during construction would be approximately 3,158 MT CO_2e over the construction period. Estimated project-generated construction emissions amortized over 30 years would be approximately 105 MT CO_2e per year. GHG emissions generated during construction of the project would occur only when construction is active, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operations

The term "project operations" refers to the full range of activities that can or may generate GHG emissions when the project is functioning in its intended use. Typically, for renewable energy projects, motor vehicles traveling to and from the project site represent the primary source of GHG emissions. As discussed in the Transportation Impact Assessment (Kittelson & Associates 2024) (Appendix K.1), operational trip generation for the project will be nominal. During operations, the project would be an unoccupied facility that would be monitored remotely. As a part of routine maintenance, the PV panels would only be washed once per year. Occasional inspections and repairs would only occur when necessary and would generate a nominal amount of daily vehicle trips. Therefore, operational GHG emissions of the project would be limited to the occasional use of maintenance vehicles and as-needed use of small utility equipment. As such, it is anticipated that the operational emissions would be minimal compared to the reduction of GHG emissions provided by the project's generation of renewable energy.

Future Decommissioning

The aboveground (detachable) equipment and structures would be disassembled and removed from the site when the facility reaches the end of its useful economic life, assumed to be 30 years in service. Detachable elements include all photovoltaic modules and support structures, battery storage units, inverters, transformers, and associated controllers. Fencing, substation, and aboveground conductors on the transmission facilities would be removed next. Underground collector and transmission components would then be removed. Most of these materials would be recycled or reclaimed. Remaining materials that cannot be recycled or reclaimed would be limited and would be contained and disposed of off-site, consistent with the County's Construction and Demolition Debris Recycling Ordinance (San Diego County Code of Regulatory Ordinances, 68.508 through 68.518). The activities associated with decommissioning would be similar to those required for project construction; however, decommissioning of the project is not expected

to include substantial earthmoving, such as grading. Therefore, it is expected that the GHG emissions from decommissioning the solar facility and BESS would be less than the emissions generated during construction, because no substantial earthmoving would be necessary. Conservatively, future decommissioning of the project is estimated to generate a total of 3,158 MT CO_2e, or 105 MT CO_2e amortized over an expected project lifetime of 30 years.

Carbon Sequestration

The project site encompasses approximately 588 noncontiguous acres within the Mountain Empire Subregion in unincorporated San Diego County, which is within the SDAB. Consistent with CalEEMod 2022 Appendix G-42, the project site can be characterized as desert "shrubland" with a carbon sequestration capacity of 2.38 MT carbon per acre per year. Thus, for the entire project site, approximately 1,400 MT per year of carbon sequestration capacity would be eliminated due to the loss of natural vegetation (Appendix H.1).

Upon completion, the 100-MW project would be expected to generate approximately 300 gigawatt-hours (GWh) per year of carbon-free electric power. Per 40 CFR 98 Subpart C, natural gas combustion has a CO_2 emission factor of 117 lbs per million British thermal units (lbs/MMBtu). For a modern natural gas–fired combined cycle generating unit, the calculated CO_2 emission intensity is approximately 800 pounds CO_2 per MWh, or 363 MT CO_2 per GWh, which is equivalent to 99 MT of carbon per GWh. Thus, the output of the project would avoid approximately 29,700 MT per year of carbon emissions compared to combined cycle generation, for a net carbon avoidance of approximately 28,300 MT per year when sequestration loss is considered.

Conclusion

The project would generate approximately 3,158 MT CO_2e during the 30-month construction period (assuming Phase II is constructed immediately following construction of Phase I), or 105 MT CO_2e per year amortized over an expected project lifetime of 30 years. As previously discussed, emissions during operations would be minimal as the project would be remotely operated and would generate a nominal amount of annual vehicle trips. Activities associated with decommissioning of the project would be similar to those required for project construction. Therefore, it is conservatively estimated that future decommissioning of the project would similarly generate a total of 3,158 MT CO_2e, or 105 MT CO_2e per year amortized over an expected project lifetime of 30 years. Further, implementation of the project would result in 1,400 MT CO_2e per year in indirect emissions due to the reduction of the carbon sequestration capacity of the project site. In total, the project would result in approximately 1,611 MT per year of combined direct and indirect CO_2e emissions. Table 3.1.4-3 presents the total direct and indirect GHG emissions of the project over an expected 30-year lifetime.

Table 3.1.4-3. Direct and Indirect Greenhouse Gas Emissions Summary

Source of CO_2e Emissions	Total Emissions Over 30 Years (MT)	Annual Emissions (MT/year)
Construction	3,158	105
Decommissioning	3,158	105
Vegetation Removal	42,000	1,400
Total	**48,316**	**1,611**

However, approximately 29,700 MT per year of carbon emissions would be avoided by the output of carbon-free electric power produced by the project. The project's annual indirect GHG emissions from the displacement of fossil fuel–fired electricity generation is significantly higher than the project's annualized

direct and indirect emissions sources; as such, the overall effect of the project would reduce GHG emissions. Therefore, the project would not generate GHG emissions, either directly or indirectly, that would have an adverse effect on the environment, and the project would have a **less-than-significant impact.**

Conflict with an Applicable Plan, Policy, or Regulation Adopted to Reduce GHG Emissions

Guidelines for the Determination of Significance

According to Appendix G, the project would have a significant impact related to GHG emissions if it would:

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Further, according to the County Guidelines:

- A proposed project would have a less than significant cumulatively considerable contribution to climate change impacts if it is found to be consistent with the County's Climate Action Plan; and, would normally have a cumulatively considerable contribution to climate change impacts if it is found to be inconsistent with the County's Climate Action Plan.

Analysis

Appendix 08 of the County's 2024 CAP includes guidelines for determining a project's significance regarding climate change. The guidelines state that "a proposed project would have a less than significant cumulatively considerable contribution to climate change impacts if it is found to be consistent with the County's Climate Action Plan" (County of San Diego 2024b). As such, a CAP Consistency Checklist was prepared for the project, based on the template provided by the County, which demonstrates that the project would be consistent with the County's CAP (Appendix H.3). Table 3.1.4-4 summarizes the project's consistencies with the 2024 CAP requirements.

Table 3.1.4-4. Project Consistency with 2024 CAP Requirements

CAP Requirement	Project Consistency
Step 1: Demonstrate Consistency with the General Plan	
Requirement 1. Is the proposed project consistent with the existing General Plan regional category and land use designations	**Consistent.** The County's General Plan identifies that the project site is within the rural regional category, and designates the project site as Rural Lands 80 (RL-80).The County's Zoning Ordinance identifies the site as General Rural (S92). The project would be considered a Major Impact Service and Utility and, under Section 1355 of the Zoning Ordinance, which is an allowable use with the approval of a Major Use Permit (MUP). According to Section 1350 of the Zoning Ordinance, Major Impact Services and Utilities may be conditionally permitted in any zone if it is determined that public interest supersedes the usual limitations placed on land use and transcends the usual restraints of zoning for reasons of necessary location and community-wide interest. The MUP process considers the location, size, and operating characteristics of the proposed use and must find that the project would be compatible with adjacent uses with consideration given to the following: harmony in scale; availability of public facilities, services and utilities; effect on desirable neighborhood character; generation of traffic; and suitability of the site for type and intensity of use (Section 7358). The application for a MUP would be processed

CAP Requirement	Project Consistency
	according to Section 7350 of the Zoning Ordinance, including making required findings pursuant to Section 7358. In accordance with Section 6954(b)(3), the project would be subject to requirements related to setback, height, visual, and security. The MUP would also be referred to the Boulevard Community Design Review Board, pursuant to Section 7355. Therefore, the project would be consistent with the County's Zoning Ordinance.
Step 2: Demonstrate Consistency with CAP Measures and Actions (Privately Initiated Project)	
Requirement 1: Electrify Loading Docks. If the project includes cold storage or refrigerated warehouse facilities, it must comply with the County's Code of Regulatory Ordinances as amended to require electric truck loading docks must be equipped with adequate infrastructure to deliver electricity to electric-powered truck refrigeration units (e-TRUs)	**Not Applicable.** The project would not include cold storage or refrigerated warehouse facilities, and no loading docks would be needed.
Requirement 2: Install Electric Vehicle Charging Infrastructure. The project must comply with the County's Code of Regulatory Ordinances as amended to require (Tier 2) CALGreen or similar electric vehicle charging infrastructure installations and preferential parking for ZEVs for new multifamily residential and nonresidential construction. If the Code of Regulatory Ordinances has not yet been amended, the project shall achieve Tier 2 status as set forth in the 2022 California Green Building Standards Code, Title 24, Part 11 (CALGreen), Appendix A4 Residential Voluntary Measures, Division A4.6, Tier 1 and Tier 2, Section A4.601.5, Tier 2, and Appendix A5 Nonresidential Voluntary Measures, Division A5.6, Voluntary Tiers, Section A5.601.3 CALGreen Tier 2.	**Not Applicable.** No formal parking spaces would be provided by the project. The project would generally be autonomous during operations, but occasional maintenance workers would utilize on-site unmarked gravel areas for parking. During temporary construction and decommissioning activities, workers would also utilize the on-site unmarked gravel areas for parking. The County has not yet amended the Code of Regulatory Ordinances to require Tier 2 CalGreen electric vehicle parking. According to CALGreen Section A5.106.5.1, projects must designate 50 percent of the total number of parking spaces for of zero-emission, fuel-efficient, or carpool vehicles. Since the total number of parking spaces provided by the project is 0, the project would not be required to designate any zero-emission parking spaces.
Requirement 3: Increase Active Transportation. If both of the following conditions are met, the project must incorporate sidewalk and bikeway improvements from the County's Active Transportation Plan. 1. Intersection or roadway segment improvements are proposed and/or required as part of the project, AND 2. The County's Active Transportation Plan identifies sidewalks or on-road bikeway facilities at intersection(s) or on roadway segment(s) that would be improved as part of the project	**Not Applicable.** The project would not include any intersection or roadway segment improvements and is therefore not required to provide sidewalk and bikeway improvements.
Requirement 4: Reduce Single Occupancy Vehicle Trips. When the County has adopted the Transportation Demand Management (TDM) ordinance and it has gone into effect, the project must comply with the ordinance.	**Not Applicable.** The TDM ordinance has not been adopted by the County.
Requirement 5: Electrify Buildings and Appliances. The project must comply with the County's Code of Regulatory Ordinances as amended to incorporate all-electric appliances and equipment in new residential, commercial, and industrial construction or incorporate (Tier 2) CALGreen or similar energy efficiency requirements for existing development projects.	**Consistent.** All project equipment would be electrified. Electricity for operations associated with the project would be supplied by the San Diego Gas and Electric Company (SDG&E).
Requirement 6: Increase Renewable Energy. The project must comply with the County's Code of Regulatory Ordinances as amended to incorporate (Tier 2) CALGreen or similar renewable energy requirements for new residential and nonresidential construction.	**Consistent.** The project would construct a 100 MW solar energy generation and storage facility, which would produce renewable solar energy over the project's lifetime. The project would also include 217.4 MW of AC energy storage in the proposed BESS. The power produced by the solar facility would interconnect into the existing SDG&E Boulevard substation via an underground generation-tie line.

CAP Requirement	Project Consistency
Requirement 7: Increase Water Efficiency. The project must comply with the County's Code of Regulatory Ordinances as amended to require (Tier 2) CALGreen or similar water efficiency requirements and reduced outdoor water use for landscaping requirements	**Not Applicable.** The project would not use any potable water. The project would primarily use water for dust control during construction and for panel cleaning during operations. The project would import non-potable groundwater from the Jacumba Community Services District, delivered by water trucks. None of the fixtures or systems listed in California Green Building Standards Code (CALGreen) Sections A5.303, A5.304, or A5.305 would be included in the project, and thus none of the water use reduction measures would apply to the project.
Requirement 8: Increase Tree Preservation. If the County's program to preserve native trees is in effect, the project must comply	**Not Applicable.** The County has not yet developed a native tree preservation program. However, to mitigate impacts to biological resources, including native trees, an off-site biological open space easement would be granted over a 448-acre area that includes sensitive vegetation communities, special-status plant species, and habitat for special-status species. This easement is for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The biological open space easement would be unfenced.
Requirement 9: Single family residential. The project must comply with the tree planting requirements of the County's Landscaping Ordinance. Each new single family residential project shall include two trees per dwelling unit.	**Not Applicable.** The project does not propose single-family residential land uses.

In addition to being consistent with the County's 2024 CAP, the project would actively help achieve the CAP's goals related to increased renewable energy generation and would directly implement the County's Renewable Energy Plan, Energy Vision Goal, and Action E-3 of the 2024 CAP, which seek to increase renewable energy use, generation, and storage in unincorporated San Diego County (County of San Diego 2024a). Table 3.1.4-5 summarizes the project's consistencies with the 2024 CAP's vision for net zero emissions.

Table 3.1.4-5. Project Consistency with 2024 CAP Vision for Net Zero Emissions

CAP Goal	Project Consistency
Built Environment and Transportation	
T-1: Reduce fleet and small equipment emissions in County operations	**Not Applicable.** The project is not a County-initiated project and would not involve County operations.
T-2: Increase the use of low-carbon and zero-emission landscaping and off-road construction equipment in the unincorporated area	**Consistent.** The project would not require any landscaping equipment. Off-road construction equipment would adhere to the latest standards and regulations.
T-3: Install electric vehicle charging stations and provide incentives for zero-emissions vehicles in the unincorporated area	**Not Applicable.** No formal parking spaces would be provided by the project. Construction workers and occasional maintenance workers would park on unmarked gravel parking areas. The project would be autonomous, and no persons would be on-site during project operation, except for routine maintenance.
T-4: Reduce emissions from County employee commutes	**Not Applicable.** The proposed project is not a County-initiated project and would not involve County employees.

CAP Goal	Project Consistency
T-5: Improve County roadways to encourage walking, biking, rolling to/from transit and destinations and increase transportation efficiency	**Not Applicable.** During operations, the project would be an unoccupied facility that would be monitored remotely. Occasional inspections, washing, and repair and maintenance would occur when necessary and would generate a nominal amount of daily vehicle trips.
T-6: Support transit and transportation demand management to reduce single occupancy vehicle trips in the unincorporated area	**Not Applicable.** During operations, the project would be an unoccupied facility that would be monitored remotely. Occasional inspections, washing and repair, and maintenance would occur when necessary and would generate a nominal amount of daily vehicle trips.
Energy	
E-1: Develop policies and programs to increase energy efficiency, renewable energy use, and electrification in County Operations	**Not Applicable.** The project is not a County-initiated project and would not involve the development of County policies and programs.
E-2: Develop policies and programs to increase energy efficiency and electrification in the unincorporated area	**Not Applicable.** The project is not a County-initiated project and would not involve the development of County policies and programs.
E-3: Develop policies and programs to increase renewable energy use, generation, and storage in the unincorporated area	**Not Applicable.** The project is not a County-initiated project and would not involve the development of County policies and programs.
E-3.3: Develop a program to provide 100% renewable energy to residents and businesses participating in San Diego Community Power by 2030 in the unincorporated area.	**Consistent.** The project would increase renewable energy generation and storage in the unincorporated areas of San Diego County.
Solid Waste	
SW-1: Achieve zero waste in County operations	**Not Applicable.** The project is not a County-initiated project and would not involve County operations.
SW-2: Achieve zero waste within the unincorporated area	**Consistent.** During construction, solid waste would be appropriately sorted and recycled, when feasible, in accordance with the California Green Building Standards Code (CALGreen) and the County's Construction and Demolition Debris Recycling Ordinance.
SW-3: Improve waste management practices at County-owned solid waste facilities to reduce emissions	**Not Applicable.** The proposed project is not a County-initiated project and is not a County-owned solid waste facility.
SW-4: Improve waste management practices in the unincorporated area to reduce emissions and increase waste diversion	**Consistent.** During construction, solid waste would be appropriately sorted and recycled, when feasible, in accordance with CALGreen and the County's Construction and Demolition Debris Recycling Ordinance.
Water and Wastewater	
W-1: Develop policies and programs to increase water efficiency, retention, recycling, and reuse to reduce potable water consumption in County operations	**Not Applicable.** The project is not a County-initiated project and would not involve County operations.
W-2: Develop policies and programs to increase indoor and outdoor water conservation (including water efficiency, retention, recycling, and reuse) in new and existing development in the unincorporated area	**Not Applicable.** The project is not a County-initiated project and would not involve the development of County policies and programs.
W-3: Develop programs to increase stormwater and wastewater treatment efficiency to reduce imported potable water use in the unincorporated area	**Not Applicable.** The project is not a County-initiated project and would not involve the development of County policies and programs.

CAP Goal	Project Consistency
Agriculture and Conservation	
A-1: Acquire and manage conservation lands to preserve natural lands and maximize carbon storage potential in the unincorporated area	**Not Applicable.** The project would not involve any agricultural land or agricultural activities. See Section 3.2.1 Agriculture and Forestry Resources.
A-2: Develop a tree planting program that expands canopy across the unincorporated area and prioritizes underserved communities	**Not Applicable.** The project is not a County-initiated project and would not involve the development of County policies and programs.
A-3: Preserve agricultural lands to prioritize carbon storage and balance economic and development goals	**Not Applicable.** The project would not involve any agricultural land or agricultural activities. See Section 3.2.1 Agriculture and Forestry Resources.
A-4: Incentivize carbon farming to expand carbon storage capacity on agricultural land and support climate-friendly farming practices in the unincorporated area	**Not Applicable.** The project would not involve any agricultural land or agricultural activities. See Section 3.2.1 Agriculture and Forestry Resources.
A-5: Reduce greenhouse gas emissions from agricultural operations	**Not Applicable.** The project would not involve any agricultural land or agricultural activities. See Section 3.2.1 Agriculture and Forestry Resources.

Additionally, CARB's 2022 Scoping Plan (CARB 2022) provides the framework for how the state will meet its long-term GHG reduction targets pursuant to AB 1279 (i.e., an 85% reduction from a 1990 statewide GHG inventory and carbon neutrality by 2045). Appendix D, Local Actions, of the 2022 Scoping Plan identifies decarbonization as a key priority area for local projects as a measure to demonstrate that they are doing their "fair share" in assisting the state in furthering its long-term GHG reduction targets legislated by AB 1279. While Appendix D is generally considered applicable to residential and mixed-use projects, the direction contained therein can be applied to other project types, such as the proposed project. The project proposes 100 MW of solar photovoltaic panels and 217 MW of battery energy storage systems; the operation of the project would not only bolster the reliability of the electrical grid but would additionally offset the combustion of natural gas and the emissions associated with this action, aligning with the decarbonization goal of the 2022 Scoping Plan. Therefore, the project serves to further reduce natural gas usage and provides the infrastructure for renewable energy resources and would be consistent with the goals of the 2022 Scoping Plan. As the project is a renewable energy project and the emissions associated with it would be minimal, any construction emissions generated by the project would be offset by the fact that the project would provide the community with zero-carbon electricity and would thus further the state in meeting its long-term GHG reduction goals consistent with the County's 2024 CAP as well as the CARB 2022 Scoping Plan. Therefore, impacts would be **less than significant.**

3.1.4.4 Cumulative Impact Analysis

The analysis of a project's GHG emissions is inherently a cumulative impacts analysis because climate change is a global issue. Accordingly, the analysis above considers the potential for the project to contribute to the cumulative impact of global climate change. Table 3.1.4-2 shows the estimated annual project-generated GHG emissions as a result of project construction. Given that the project would displace GHG emissions during operations and given that GHG emission impacts are cumulative in nature, the project's incremental contribution to cumulatively significant GHG emissions would be less than significant. Additionally, the project would be consistent with the CARB 2022 Scoping Plan and the County's CAP. The project would therefore be consistent with state initiatives aimed at reducing GHG emissions and would **not contribute to a cumulatively considerable** impact.

3.1.4.5 Conclusion

Indirect and Direct GHG emissions

The project would generate approximately 3,158 MT CO_2e during the 18-month construction period, or 105 MT CO_2e per year amortized over an expected project lifetime of 30 years. As previously discussed, the project would be an unoccupied facility that would be monitored remotely during operations. As a part of routine maintenance, the PV panels would only be washed once per year. Occasional inspections and repairs would only occur when necessary. Therefore, emissions during operations would be minimal as the project would be remotely operated and would generate a nominal amount of annual vehicle trips. Activities associated with decommissioning of the project would be similar to those required for project construction. Therefore, it is conservatively estimated that future decommissioning of the project would similarly generate a total of 3,158 MT CO_2e, or 105 MT CO_2e per year amortized over an expected project lifetime of 30 years. Further, implementation of the project would result in 1,400 MT CO_2e per year in indirect emissions due to the reduction of the carbon sequestration capacity of the project site. In total, the project would result in approximately 1,611 MT per year of combined direct and indirect CO_2e emissions.

However, 29,700 MT per year of carbon emissions would be avoided by the output of carbon-free electric power produced by the project. The project's annual indirect GHG emissions from the displacement of fossil fuel–fired electricity generation is significantly higher than the project's annualized direct and indirect emissions sources; as such, the overall effect of the project would reduce GHG emissions. Therefore, the project would have a beneficial GHG emissions impact, and impacts would be **less than significant**, and no mitigation measures would be necessary.

Conflict with Adopted Plans

The project would help promote California's GHG policies by creating renewable energy resources and would be consistent with the CARB 2022 Scoping Plan. Further, as shown in Table 3.1.4-4 and Table 3.1.4-5, the project would be consistent with the County's 2024 CAP. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted to reduce GHG emissions. Therefore, impacts would be **less than significant**, and no mitigation measures would be necessary.

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3.1.5 Hazards and Hazardous Materials

This section of the Environmental Impact Report (EIR) discusses potential impacts related to hazards and hazardous materials resulting from implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project, which were prepared in accordance with the *County of San Diego Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a), *County of San Diego Guidelines for Determining Significance – Airport Hazards* (County of San Diego 2007b), *County of San Diego Guidelines for Determining Significance – Emergency Response Plans* (County of San Diego 2007c), and the *County of San Diego Environmental Impact Report Format and General Content Requirements* (County of San Diego 2006):

- *Phase I Environmental Site Assessment, Boulevard Starlight Solar* (Michael Baker International 2023) (Appendix I of this EIR)

This analysis is further supplemented by the following technical studies:

- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Battery Energy Storage System NFPA 551 Fire Risk Assessment and Heat Flux Analysis* (Hiller 2025a) (Appendix O.1 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Battery Energy Storage System IEC 60812 Failure Mode and Effects Analysis* (Hiller 2025b) (Appendix O.2 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Balance of Plant NFPA 551 Fire Risk Assessment* (Hiller 2025c) (Appendix O.3 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Balance of Plant IEC 60812 Failure Mode and Effects Analysis* (Hiller 2025d) (Appendix O.4 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Balance of Plant Hazard Mitigation Analysis* (Hiller 2025e) (Appendix O.5 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary First Responders Guide* (Hiller 2025f) (Appendix O.6 of this EIR)

This section is divided into an analysis of potential hazards to public safety and the environment related to hazardous materials, schools, airports, and emergency response and evacuation plans. The discussion of hazards and hazardous materials describes known and potential impacts due to hazardous materials/wastes, potential transport and disposal of hazardous materials, and potential threats of release of hazardous materials. The wildland fires analysis that examines fire threat hazards and the potential for wildfires on the project site and within wildland/urban interface areas is covered under Section 2.7, Wildfire. The proposed project's impacts on fire protection services are covered under Section 3.1.8, Public Services.

Comments received in response to the Notice of Preparation (NOP) include concerns regarding glint and glare impacts to motorists on Interstate 8 (I-8), potential fire hazards, and potential safety hazards to construction workers. These concerns are addressed in this section of the EIR where applicable, as well as within the *Fire Protection Plan, Starlight Solar Project* (SWCA Environmental Consultants 2024; Appendix L). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.5.1 Existing Conditions

Project Site

The project site currently consists of 588 acres of vacant land, including several unpaved roads and an unimproved landing strip to the southeast of Jewel Valley Road. The project site does not contain any structures. The Desert Line of the San Diego & Arizona Eastern Railway crosses the site from east to west; however, the Desert Line is not currently in use, except for a 5-mile stretch in Campo, California that is run by the Pacific Southwest Railway Museum (San Diego Metropolitan Transit System 2013; *San Diego Tribune* 2021). The nearest school is Clover Flat Elementary School, approximately 0.75 mile northwest of the project site (Figure 3.1.5-1).

A visual site reconnaissance conducted by vehicle of the readily accessible areas of the project site and immediately adjoining properties was conducted on June 20, 2023, in support of the Phase I Environmental Site Assessment for the project (see Appendix I). The project site was examined from public thoroughfares.

Hazardous Materials

Hazardous materials typically require special handling, reuse, and disposal because of their potential to harm human health and the environment. The California Health and Safety Code (H&SC), Section 25501, defines a hazardous material as follows:

> Any material that, because of its 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. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

In California, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by the Department of Toxic Substances Control (DTSC). The DTSC maintains a list of active registered hazardous waste transporters throughout the state. Transportation of hazardous materials is permitted on I-8 and State Route (SR) 94 in the project vicinity. The Desert Line of the San Diego & Arizona Eastern Railway runs through the project site from west to east; however, the Desert Line is not in current operation and would require rehabilitation before operations could resume. If railway operations were to resume, the railway would have the potential to carry hazardous and toxic materials. Truck traffic to and from the Tecate Port of Entry poses the risk of an accident and spill/release on winding and narrow SR 94.

Potential Hazardous Material Association with Historical Land Uses

Historical land uses and conditions within the project site may have resulted in adverse impacts to the project site, representing potential hazards to humans and the environment. In August 2023, a Phase I Environmental Site Assessment was prepared for the project site (see Appendix I). The Phase I Environmental Site Assessment includes a history of the site that was compiled based on the review of historical aerial photographs and topographic maps, agency records, city directory listings, building permit reports, and site owner/representative interviews. The objective of the Phase I Environmental Site Assessment was to identify Recognized Environmental Conditions (RECs) that affect the project site. RECs are defined by ASTM International (ASTM) as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment;

(2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment" (ASTM 2021). According to the ASTM Phase I Environmental Site Assessment standard, the term *recognized environmental condition* is not intended to include de minimis conditions (minor things) that generally do not present a material risk or harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government authorities.

The project site historically consisted of vacant land, ranching/grazing land, unimproved roads, intermittent streams, and ponds. There are no indications of on-site solid waste disposal practices (i.e., landfills). Additionally, a railroad track has been present at the subject property since at least 1939. Adjoining land uses have historically consisted of vacant land, unimproved and light duty roads, railroad tracks, rural residential uses, a San Diego Gas and Electric Company (SDG&E) facility, and ranching operations. Rural residential uses were apparent in the surrounding area since at least 1939, and increased residential development in the general vicinity was apparent through present day. Additionally, indications of mining activities adjoining various locations of the subject property were apparent beginning in 1975. Land further to the north along Old Highway 80 appeared to have been developed by 1939 and has been further developed with various commercial businesses, state government buildings, and public service facilities over the years (see Appendix I).

Historic Uses of Hazardous Concern

Portions of the project site were historically used for agricultural purposes. Based on historical documentation, land south of the airstrip on the project site may have been used as ranching/grazing land beginning in 1989 (see Appendix I). The former ranching/grazing land use on-site appeared to be ancillary uses supporting historic and current ranching operations at the western-adjoining Empire Ranch property. Based on a review of historic topographic maps, two water wells were depicted on the current landing strip area from at least 1959 to 2018. The water wells are dry and associated with the western-adjoining Empire Ranch property. As disclosed in the Phase I Environmental Site Assessment, no current or former chemicals of concern were identified as being used on-site (see Appendix I). Historically, fertilizers and pesticides have been used for the on-site oak trees. Such operations appeared to follow standard customary practice for ranching uses. Because pesticides break down over time, it is likely that concentrations of residual compounds, if present, are below risk-based criteria for the proposed use of the project site (see Appendix I). As such, the former grazing and ranching activities have not resulted in a REC.

According to the Phase I Environmental Site Assessment, based on historical documentation, a building was present on the current airstrip area from at least 1939 to 1942. This area of the project site has since been graded and was developed with an unpaved landing strip by 2005, which is no longer operational. As such, the airstrip use has not resulted in a REC (see Appendix I).

Two industrial drums were noted during the site reconnaissance in the southwestern portion of Area G, near an area of natural ponding. According to interviews, the drums are likely used to store firewood and do not contain hazardous materials (see Appendix I). No leaking, staining, or other indications of a release of hazardous materials was observed in the vicinity of the drums. In addition, one pole-mounted transformer was observed in the southwestern portion of Area A. Polychlorinated biphenyls (PCBs) could be associated with the on-site transformer; however, the transformer appeared to be in good condition, and no evidence of leakage or staining was observed (see Appendix I).

A portion of the San Diego & Arizona Eastern Railway was apparent on the southern portion of the site by 1939. The railroad is no longer operational. Railroad tracks are typically associated with the use of pesticides and arsenic, and the presence of gasoline, diesel, and/or creosote underneath and surrounding the railroad is likely. Active and inactive railroad beds frequently have concentrations of petroleum products

and lead elevated above natural background conditions. Petroleum product concentrations and lead concentrations are derived from drippings from rail vehicles and flaked paint, respectively. Wooden railroad ties may contain preservatives (i.e., creosote), some of which may contain hazardous constituents. Track switch locations often have elevated levels of petroleum hydrocarbons. Inorganic and organic herbicides, along with diesel fuel, may have been used for vegetation control. Therefore, the former on-site railroad track is considered a REC (see Appendix I).

As noted in the Phase I Environmental Site Assessment, one listed site, the Risley Burroughs Deposit/Risley Deposit, was reported within the project area. Mining activities were reported on the site in 1982 and 1991, and the commodities reported included quartz and silica. The site is listed in the Mineral Resources Data System database (see Appendix I). However, the County of San Diego (County) Department of Environmental Health and Quality (DEHQ), Hazardous Materials Division (HMD), indicated no records are available for the address.

No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the project site. The project site has not been under investigation for violation of any environmental laws, regulations, or standards (see Appendix I).

Environmental Database Records

As part of the desktop environmental review, regulatory agency records of known hazardous contamination sites were reviewed, including Geotracker, the Regional Water Quality Control Board database, and EnviroStor (Cortese List), the DTSC database. There are no known hazardous sites on the project site. The nearest existing hazardous sites include:

- California Department of Transportation (Caltrans) substation in Boulevard (Case #T0607300001) located at 40945 Old Highway 80 as a leaking underground storage tank cleanup site. The site has been closed since November 12, 2015, and is approximately 1,400 feet (0.26 mile) east of the project site, east of the Boulevard substation along Old Highway 80 (State Water Resources Control Board 2025).
- Mountain Top Market (Case # T0607300002) located at 39710 Old Highway 80 as a leaking underground storage tank cleanup site. The site has been closed since February 17, 2009, and is located approximately 1.4 miles west of the project site (State Water Resources Control Board 2025).
- Sol Gap Filler Ax Z76c (Case #80000486) was listed as Indicative as of July 1, 2005. The site is approximately 3.5 miles east of the project site (DTSC 2024).

The California Integrated Waste Management Board Solid Waste Information System database (Cal Recycle 2025) was also reviewed for solid waste facilities and disposal sites in the project area. There are no known solid waste or other disposal facilities listed on the project site.

The southern portion of Area G (Assessor's Parcel Number 659-080-02) is listed in the Mineral Resources Data System, which indicates mining activities were reported in 1982 and 1991. Records were requested from the DEHQ HMD on June 13, 2023. On June 15, 2023, HMD indicated no records are available for the requested address.

The SDG&E Boulevard substation adjoins the northeastern gen-tie line area to the northwest and is listed in the Resource Conservation and Recovery Act (RCRA) databases. The facility was reported as a large quantity generator of hazardous waste in May 2014. No violations were reported. On June 27, 2023, HMD provided records for the facility, which stated the following:

This site adjoins the northeastern gen-tie line area to the northwest. The records received from HMD include several Annual Carcinogen and Reproductive Toxin Reporting Lists prepared for the SDG&E facility from 2014 to 2019, which indicate the facility maintained vacuum pump fluid; "imbiber beads absorbent product;" "lead acid battery wet, filled with acid;" electro-contact cleaner; silica sands and gravel; lead and lead compounds; arsenic; and strong inorganic acid mists containing sulfuric acid. According to a March 16, 2023 Compliance Inspection Report, the facility stores electrolytic batteries, dielectric mineral oil, sulfur hexafluoride, and nitrogen gas. No violations were reported during routine compliance evaluation inspections conducted in May 2017, September 2019, and March 2023. No releases have been reported. (Michael Baker International 2023:4-15; see Appendix I)

Public and Private Airport Hazards

The nearest public airport is the Jacumba Airport, approximately 7 miles east of the project site. The Jacumba Airport Land Use Compatibility Plan (ALUCP) (Mead & Hunt 2011) is a planning document that contains policies for promoting safety and compatibility between public use airports and the surrounding communities. The ALUCP outlines Airport Influence Areas (AIAs) that relate to planning decisions to ensure public safety. The project site is outside of the AIA, per map JAC-2 in the ALUCP (Mead & Hunt 2011); see Figure 3.1.5-1.

As noted previously, there is an existing private airstrip within the project site at Assessor's Parcel Number 612-110-17. The airstrip is located within the Jewel Valley Creek watercourse, which is a tributary of Boundary Creek. The airstrip was initially developed in the early 1990s and expanded in the mid-2000s.

Emergency Response

The project site is accessible via Jewel Valley Road and additional emergency access would be provided via Tule Jim Lane. Jewel Valley Road is paved in certain segments and is otherwise a flat, well-maintained dirt road. Tule Jim Lane is also a well-maintained dirt road. Both roads are wide enough to accommodate two-way traffic for emergency vehicles and connect to Old Highway 80 in the community of Boulevard. Each site entrance would feature a manual swing gate and a sign with a lighted directory map and contact information. All entrance gates would feature a Knox Box to allow ease of access for emergency service providers.

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) addresses fire station travel times in its Safety Element (County of San Diego 2021), which provides fire station travel time standards for each land use designation. The majority of the project site is designated as Rural Lands 80 (RL-80), which has a travel time requirement of greater than 20 minutes Element (County of San Diego 2021: Table S-3). The generation-tie line route and San Diego Gas and Electric Company (SDG&E) Boulevard substation are designated as Semi-Rural Residential (SR-10), which has a travel time requirement of 20 minutes.

The project site, within the San Diego County Fire Protection District (SDCFPD) jurisdiction, has one fire station within a 5-minute drive time, two stations within a 10-minute drive time, and an additional station within a 15-minute drive time (see Figure 2.7-3 and Figure 2.7-4 in Section 2.7, Wildfire). SDCFPD Boulevard Station 47 is 1 mile from the project site and within a 5-minute drive time. The CAL FIRE White Star Station and the Campo Reservation Fire Protection District Station are both within 10-minute drive times, at 1.6 and 4.3 miles, respectively, and CAL FIRE Jacumba Station 43 is 5 miles from the project site with a drive time of 15 minutes. Two additional fire stations—CAL FIRE Campo Station 40 and SDCFPD Lake Morena Station 42—are just outside the 15-minute drive time but are within the 20-minute standard for semi-rural settings. These stations are staffed for incident response with adequate apparatus and

firefighting equipment. As discussed further in Appendix L, Fire Protection Plan (SWCA Environmental Consultants 2024), drive times were calculated using the ArcGIS Pro Generate Service Areas tool in the Network Analysis toolbox.

Emergency medical response cannot be separated from fire protection response services because the first responders to emergency medical responses are usually fire response units. Mercy Medical Transportation, Inc., San Diego is the contracted ambulance service provider for the project area; their closest stationed ambulance location in the project vicinity is at the Boulevard Fire Station (40080 Ribbonwood Road), approximately 0.75 mile from the project site. The Boulevard Fire Station is a partnership between the San Diego County Fire Authority (SDCFA) and CAL FIRE and serves the residents of Boulevard and those traveling in the area between Pine Valley and Jacumba on I-8 or SR 94 between Campo and Jacumba.

Emergency/Evacuation Plans

Emergency response plans include elements to maintain continuity of government, emergency functions of agencies, mobilization and application of resources, mutual aid, and public information. The *Operational Area Emergency Operations Plan* (County of San Diego 2022) is San Diego County's comprehensive emergency plan; there are also numerous stand-alone emergency plans including the *Multi-Jurisdictional Hazard Mitigation Plan* (County of San Diego 2023), described below under Local Regulations. Potential hazards or events that may trigger an emergency response action in San Diego County include earthquakes, tsunamis, floods, wildland fires, landslides, droughts, hurricanes, tropical storms, and freezes. Emergency response actions could also be triggered from a hazardous material incident, water or air pollution, a major transportation accident, water, gas, or energy shortage, an epidemic, a nuclear accident, or terrorism. Emergency routes in the project area include I-8 and major roads and highways including Old Highway 80, Tierra Del Sol Road, SR 94, and Jewel Valley Road (Figure 3.1.5-2).

3.1.5.2 Regulatory Setting

Numerous federal, state, and local regulations have been enacted to prevent or mitigate damage to public health and safety and the environment from the release or threatened release of hazardous substances into the workplace or environment, to protect human health and environmental resources from existing site contamination, and to protect human health and safety from the threat of an emergency, including fire. The regulations below are relevant to the project and the topics of hazardous substances, site contamination, and potential emergencies on the project site.

Federal Regulations

National Emission Standards for Hazardous Air Pollutants

The U.S. Environmental Protection Agency's (EPA's) National Emission Standards for Hazardous Air Pollutants requires that a thorough asbestos survey be performed prior to demolition or renovation activities that may disturb asbestos-containing materials (ACMs). This requirement may be enforced by federal, state, and local regulatory agencies, and specifies that all suspect ACMs be sampled to determine the presence or absence of asbestos prior to any renovation or demolition activities that may disturb them to prevent potential exposure to workers, building occupants, and the environment.

Resource Conservation and Recovery Act of 1976 as Amended by the Hazardous and Solid Waste Amendments of 1984

Federal hazardous waste laws are generally promulgated under RCRA. RCRA establishes a framework for national programs to achieve environmentally sound management of both hazardous and non-hazardous

wastes. RCRA was designed to protect human health and the environment, reduce/eliminate the generation of hazardous waste, and conserve energy and natural resources. RCRA also promotes resource recovery techniques. The Hazardous and Solid Waste Amendments of 1984 both expanded the scope of RCRA and increased the level of detail in many of its provisions. The Hazardous Waste Management subchapter of the RCRA deals with a variety of issues regarding the management of hazardous materials including the export of hazardous waste, state programs, inspections of hazardous waste disposal facilities, enforcement, and the identification and listing of hazardous waste.

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified.

The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites, required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations; provided new enforcement authorities and settlement tools, increased state involvement in every phase of the Superfund program, increased the focus on human health problems posed by hazardous waste sites, and encouraged greater citizen participation in making decisions on how sites should be cleaned up.

Chemical Accident Prevention Provisions

When Congress passed the Clean Air Act Amendments of 1990, it required the EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. These rules, which built upon existing industry codes and standards, require companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program.

Clean Water Act

Section 2.4, Hydrology and Water Quality, presents an overview of the Clean Water Act and associated stormwater pollution prevention plan (SWPPP) requirements. Relevant to the hazards discussion, the Clean Water Act Section 311(j)(1)(C) also includes the Spill Prevention, Control, and Countermeasure (SPCC) Regulation. The intent of this regulation is to prevent oil from entering navigable waters. This regulation typically applies to a total aggregate capacity of aboveground oil storage containers greater than 1,320 gallons or below ground aggregate capacity of 42,000 gallons, with certain exceptions as described in the code. The SPCC establishes procedures, methods, and equipment requirements for these regulated facilities. In addition, it requires facilities subject to the SPCC code to prepare a facility-specific response plan to be implemented in the event of an accidental spill.

Hazardous Materials Transportation Act

The U.S. Department of Transportation regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations (CFR). State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and Caltrans. These agencies also govern permitting for hazardous materials transportation.

U.S. Environmental Protection Agency Risk Assessment and Regional Screening Levels

The EPA and DTSC use risk assessments to characterize the nature and magnitude of health risks to humans and ecological receptors from chemical contaminants and other stressors that may be present in the environment. The environmental risk assessments typically fall into one of two areas: Human Health and Ecological. The risk assessment evaluates the following three factors: how much of a chemical is present in an environmental medium (air, soil, and water), how much contact (exposure) a person or ecological receptor has with the contaminated environmental medium, and the inherent toxicity of the chemical.

Federal Aviation Administration Functions

The Federal Aviation Administration (FAA) has primary responsibility for the safety of civil aviation. The FAA's major functions regarding hazards include the following: (1) developing and operating a common system of air traffic control and navigation for both civil and military aircraft, (2) developing and implementing programs to control aircraft noise and other environmental effects of civil aviation, (3) regulating U.S. commercial space transportation, and (4) conducting reviews to determine that the safety of persons and property on the ground are protected. An FAA report titled *Technical Guidance for Evaluating Selected Solar Technologies on Airports* (FAA Solar Guide) was prepared to provide the FAA with procedures for reviewing solar projects (FAA 2018).

The April 2018 version updated Section 3.1.2, Reflectivity, of the FAA Solar Guide to incorporate the latest information about evaluation of solar glint and glare. The 2018 version also clarified the relationship between solar energy and the FAA's Voluntary Airport Low Emission program in Section 5.3.2 of the FAA Solar Guide and added information about the FAA's Airport Energy Efficiency Program to Section 5.3.3 of the FAA Solar Guide.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act (EPCRA), also known as SARA Title III, was enacted in October 1986. EPCRA was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. These concerns were triggered by the disaster in Bhopal, India, in which more than 2,000 people suffered death or serious injury from the accidental release of methyl isocyanate. To reduce the likelihood of such a disaster in the United States, Congress imposed requirements on both state and federally regulated facilities. EPCRA establishes requirements for federal, state, and local governments, Indian Tribes, and industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. SARA Title III requires states and local emergency planning groups to develop community emergency response plans for protection from a list of Extremely Hazardous Substances (40 CFR 355 Appendix A). The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. In California, SARA Title III is implemented through the California Accidental Release Prevention (CalARP) program.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of

a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

Occupational and Safety Health Act

Congress passed the Occupational and Safety Health Act to ensure worker and workplace safety. Its goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Occupational and Safety Health Act also created the National Institute for Occupational Safety and Health as the research institution for the Occupational Safety and Health Administration (OSHA). OSHA is a division of the U.S. Department of Labor that oversees the administration of the Occupational and Safety Health Act and enforces standards in all 50 states. Because California has an approved State Plan, only California Occupational Safety and Health Administration (Cal/OSHA) standards apply to the project site.

State Regulations

California Occupational Safety and Health Administration

Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are required to be "as effective as" federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 California Code of Regulations [CCR] 330 et seq.). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings. The employer is also required, among other things, to have an Illness and Injury Prevention Program.

California Health and Safety Code

Article 2 of Chapter 6.95 of the H&SC (Sections 25531–25543.3) requires the owner or operator of a stationary source with more than a threshold quantity of a regulated substance to prepare a risk management plan. The state statutes and regulations combine federal and state program requirements for the prevention of accidental releases of listed substances into the atmosphere. The incorporation of the federal and state requirements have been designated the CalARP program. CalARP requires that a risk management plan include a hazard assessment program, an accidental release prevention program, and an emergency response plan. The risk management plan must be revised every 5 years or as necessary. The majority of facilities or businesses in the County that have prepared risk management plans are ammonia refrigeration facilities and water treatment and wastewater treatment plants that handle chlorine gas.

California Department of Public Health

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 a construction project and to perform lead-related construction work in an effective and safe manner.

California Government Code Section 65962.5(a), Cortese List

California Government Code Section 65962.5(a), also known as the Hazardous Waste and Substance Sites (Cortese) List is a planning document used by the state, local agencies, and developers to comply with the California Environmental Quality Act (CEQA) requirements in providing information about the location

of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Hazardous Materials Business Plans

Article 1 of Chapter 6.95 of the H&SC (Sections 25500–25520) requires that any business that handles, stores, or disposes of a hazardous substance at a given threshold quantity must prepare a Hazardous Materials Business Plan (HMBP). HMBPs are intended to minimize hazards to human health and the environment from fires, explosions, or an unplanned release of hazardous substances into air, soil, or surface water. The HMBP must be carried out immediately whenever a fire, explosion, or unplanned chemical release occurs. An HMBP includes three sections: (1) an inventory of hazardous materials, including a site map, which details their location; (2) an emergency response plan; and (3) an employee training program. HMBPs serve as an aid to employers and employees in managing emergencies at a given facility. They also help better prepare emergency response personnel for handling a wide range of emergencies that might occur at the facility. HMBPs are submitted to the DEHQ HMD. The plans must be resubmitted, reviewed, revised, or amended as necessary every 3 years. The HMBP must also be amended within 30 days whenever there are changes in the amount or location of stored hazardous chemicals on a site. The HMD conducts routine inspections at businesses required to submit business plans. The purpose of these inspections is to (1) ensure compliance with existing laws and regulations concerning HMBP requirements, (2) identify existing safety hazards that could cause or contribute to an accidental spill or release, and (3) suggest preventive measures designed to minimize the risk of a spill or release of hazardous materials. After initial submission of an HMBP, the business must review and recertify the HMBP every year.

Title 22 of the California Code of Regulations and Hazardous Waste Control Law, Chapter 6.5

The DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. CalEPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other Certified Unified Program Agencies, including the County DEHQ.

Title 23 of the California Code of Regulations, Underground Storage Tank Act

The underground storage tank monitoring and response program is required under H&SC Chapter 6.7 and Title 23 of the CCR. The program was developed to ensure that the facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response in operating or owning underground storage tanks. The County DEHQ is the administering agency for this program.

Title 27 of the California Code of Regulations, Solid Waste

Title 27 of the CCR contains a waste classification system that applies to solid wastes that cannot be discharged directly or indirectly to waters of the state and which therefore must be discharged to waste management sites for treatment, storage, or disposal. The California Integrated Waste Management Board and its certified Local Enforcement Agency regulate the operation, inspection, permitting, and oversight of maintenance activities at active and closed solid waste management sites and operations.

Accidental Release Prevention Law/CalARP

Senate Bill 1889 required California to implement a new federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the Clean Air Act. Effective January 1, 1997, CalARP replaced the previous California Risk Management and Prevention Program and incorporated the mandatory federal requirements. CalARP addresses facilities that contain specified hazardous materials, known as "regulated substances," which if involved in an accidental release could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government, and private agencies. The plan is administered by the California Emergency Management Agency (Cal EMA) and includes response to hazardous materials incidents. Cal EMA coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife (formerly California Department of Fish and Game), Regional Water Quality Control Board, San Diego Air Pollution Control District, the City of San Diego Fire Department, and County DEHQ.

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 the 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 the following occurs: (1) a local declaration of emergency; or (2) Cal EMA gives concurrence with the local declaration, or the governor issues a proclamation of a state emergency. Once the act is activated, local government is eligible for certain types of assistance, depending upon the specific declaration or proclamation issued.

Local Regulations

Jacumba Airport Land Use Compatibility Plan

The County adopted the ALUCP for the Jacumba Airport in December 2006 and amended the plan in 2011 (Mead & Hunt 2011). ALUCPs are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. They are intended to protect the safety of people, property, and aircraft on the ground and in the air in the vicinity of the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. The Jacumba ALUCP defines an area around the airport known as AIA, which is established by factors including airport size, operations, and configuration, as well as the safety, airspace protection, noise, and over-flight impacts on the land surrounding an airport. The project site is not located within the AIA for Jacumba Airport. Therefore, the project is not subject to the restrictions applicable to the AIA.

San Diego County Department of Environmental Health, Hazardous Incident Response Team

The DEHQ Hazardous Incident Response Team (DEHQ-HIRT) is the local agency that is responsible for responding to chemically related emergencies or complaints. DEHQ-HIRT consists of 10 California State Certified Hazardous Materials Specialists. The team was founded in 1981 by the Unified Disaster Council and is funded by a Joint Powers Agreement. This team services all unincorporated San Diego County areas, 18 municipalities, two military bases, and five Native American tribal reservations. There are over 400 responses a year in the DEHQ-HIRT operational area. DEHQ-HIRT responds jointly with the San Diego Fire-Rescue Department Hazardous Incident Response Team to investigate and mitigate chemically related emergencies or complaints. Emergency response activities include mitigation, containment, control actions, hazard identification, and threat evaluation to the local population and the environment. DEHQ-HIRT is also responsible for handling all complaints after normal business hours for the DEHQ.

San Diego County Multi-Jurisdictional Hazard Mitigation Plan

The *Multi-Jurisdictional Hazard Mitigation Plan* (County of San Diego 2023) is implemented by the County of San Diego Office of Emergency Services. It is a county-wide plan that identifies risks posed by natural and human-caused disasters and discusses ways to minimize potential damage from these disasters. The comprehensive plan is intended to enhance public understanding and awareness of potential hazardous situations, create a decision tool for managing hazards, promote compliance with state and federal program requirements, enhance local policies for hazard mitigation capability, provide inter-jurisdictional coordination, and achieve regulatory compliance (County of San Diego 2023).

Operational Area Emergency Operations Plan

The *Operational Area Emergency Operations Plan* (County of San Diego 2022) is a comprehensive emergency plan that defines responsibilities, establishes an emergency organization, defines lines of communications, and is designed to be part of the statewide Standardized Emergency Management System. The plan provides guidance for emergency planning and requires subsequent plans to be established by each jurisdiction that has responsibilities in a disaster situation. The *Multi-Jurisdictional Hazard Mitigation Plan* (County of San Diego 2023), described above, includes an overview and discussion of the risk assessment process, hazards present in the jurisdiction, hazard profiles, and vulnerability assessments. The plan also identifies goals, objectives, and actions for each jurisdiction in the county, including all cities and unincorporated areas.

San Diego County General Plan

Updated and adopted in August 2011, the *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) guides future growth in the unincorporated areas of San Diego County and considers projected growth anticipated to occur within various communities. In the General Plan, the Conservation and Open Space, Land Use, and Safety Elements are relevant to emergencies, hazards, and hazardous materials.

The following policies of the Conservation and Open Space Element are applicable to the proposed project (County of San Diego 2011b):

- **COS-18.2 Energy Generation from Waste.** Encourage use of methane sequestration and other sustainable strategies to produce energy and/or reduce GHG [greenhouse gas] emissions from waste disposal or management sites.

- **COS-18.3 Alternate Energy Systems Impacts.** Require alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment.

The following policies of the Land Use Element (County of San Diego 2011c) are applicable to the proposed project:

- **LU-6.10 Protection from Hazards.** Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.
- **LU-12.1 Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.

The following policies of the Safety Element (County of San Diego 2021) are applicable to the proposed project:

- **S-2.2 Evacuation Impediments.** Advise, and where appropriate, require all new developments to help eliminate impediments to evacuation within existing community plan areas, where limited ingress/egress conditions could impede evacuation events.
- **S-2.3 Community Plan Evacuation.** Identify community plan areas that have reduced or limited circulation access and develop an evacuation plan, including an Evacuation Traffic Management Plan and recommended improvements to ensure adequate evacuation capabilities. Community Evacuation Plans should be evaluated and revised to address changes in at-risk areas and populations to ensure effectiveness.
- **S-2.5 Existing Development within Hazard Zones.** Implement warning systems and evacuation plans for developed areas located within known hazard areas (i.e., flood, wildfire, earthquake, other hazards).
- **S-2.6 Effective Emergency Evacuation Programs.** Develop, implement, and maintain an effective evacuation program for areas of risk in the event of a natural or human-caused disaster.
- **S-2.7 Evacuation Access.** All development proposals are required to identify evacuation routes at the Community Plan level and identify and facilitate the establishment of new routes needed to ensure effective evacuation. Evacuation routes should be incorporated into existing Community Wildfire Protection Plans where available.
- **S-4.4 Service Availability.** Plan for development where fire and emergency services are available or planned.
- **S-8.3 Land Use Location.** Prohibit high occupancy uses, essential public facilities, and uses that permit significant amounts of hazardous materials within Alquist-Priolo and County special studies zones.
- **S-9.3 Evacuation Route Risk.** Identify and propose mitigation actions for evacuation routes located in close proximity to active or potential landslide zones.
- **S-10.8 Evacuation Route Development.** Identify secondary evacuation routes in Community Plan areas that are susceptible to flood-related impacts to ensure adequate evacuation access is available.
- **S-13.1 Land Use Location.** Require that land uses involving the storage, transfer, or processing of hazardous materials be located and designed to minimize risk and comply with all applicable hazardous materials regulations.

- **S-13.3 Hazards Sensitive Uses.** Require that land uses using hazardous materials be located and designed to ensure sensitive uses, such a schools, hospitals, day care centers, and residential neighborhoods, are protected. Similarly, avoid locating sensitive uses near established hazardous materials users or High Impact Industrial areas where incompatibilities would result.
- **S-13.4 Contaminated Lands.** Require areas of known or suspected contamination to be assessed prior to reuse. The reuse shall be in a manner that is compatible with the nature of the contamination and subsequent remediation efforts.
- **S-13.5 Development Adjacent to Agricultural Operations.** Require development adjacent to existing agricultural operations in Semi-Rural and Rural Lands to adequately buffer agricultural areas and ensure compliance with relevant safety codes where pesticides or other hazardous materials are used.
- **S-16.1 Vehicular Access to Development.** Require development to provide vehicular connections that reduce response times and facilitate access for law enforcement personnel, whenever feasible.
- **S-17.4 Hazardous Obstructions within Airport Approach and Departure.** Restrict development of potentially hazardous obstructions or other hazards to flight located within airport approach and departure areas or known flight patterns and discourage uses that may impact airport operations or do not meet Federal or State aviation standards.

Mountain Empire Subregional Plan

The *Mountain Empire Subregional Plan, San Diego County General Plan* (County of San Diego 2016) establishes goals and policies to guide development within the areas of Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba, and the Mountain Empire Balance. The plan has been reviewed related to the focus of this section of the EIR; there are no service-related policies or objectives that would apply to the project in this plan.

Boulevard Subregional Planning Area Community Plan

The *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (County of San Diego 2013) provides specific policy guidance for over 55,000 acres, which includes the communities of Boulevard, Live Oak Springs, and Tierra del Sol. The following goals and policies are relevant to hazards or hazardous materials and applicable to the proposed project:

- **Goal S 1.1.** Adequate law enforcement and emergency services and staffing to ensure timely response times and safe and secure environment for residents and visitors alike.
- **Policy S 1.1.1.** Seek funding opportunities for year-round staffing of the Cal-Fire and Boulevard Fire and Rescue Department.
- **Policy LU 1.1.6.** Require landscaping in new development to emphasize the use of xeriscape design with native, drought-tolerant, and fire-resistant plants to conserve water resources and help prevent the spread of fire.
- **Goal S 2.1**. Adequate emergency supplies and equipment to provide shelter and comfort during disasters and emergency situations.
- **Policy S 2.1.1**. Seek funding opportunities and sponsors to secure emergency supplies and equipment, including emergency generators and adequate and safe fuel storage.
- **Policy CM 3.1.1.** Require secondary fire access/egress routes to connect to a public road, when feasible.

3.1.5.3 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

For the purpose of this EIR, the following County guidelines for determining significance apply to both the direct impact analysis and the cumulative impact analysis:

- *Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a)
- *Guidelines for Determining Significance – Airport Hazards* (County of San Diego 2007b)
- *Guidelines for Determining Significance – Emergency Response Plans* (County of San Diego 2007c)

An affirmative response to, or confirmation of, any one of the following guidelines will generally be considered a significant impact related to hazards and hazardous materials as a result of the project, in the absence of evidence to the contrary:

Hazardous Substance Handling

- The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC and the project will not be able to comply with applicable hazardous substance regulations.
- The project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP [risk management plan] requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within one-quarter mile of the facility. (County of San Diego 2007a:20)

Existing On-site Contamination

- The project is located on or within one-quarter mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.519 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.
- The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burnsites) and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 1,000 feet of a FUDS [Formerly Used Defense Site] and it has been determined that it is probable that munitions or other hazards are located onsite that could represent a significant hazard to the public or the environment.
- The project could result in human or environmental exposure to soils or groundwater that exceed EPA Region 9 PRG's [preliminary remediation goals], Cal/EPA CHHSL's [California Human Health Screening Levels], or Primary State or Federal Maximum Contaminant Levels (MCLs) for

applicable contaminants and the exposure would represent a hazard to the public or the environment.

- The project will involve the demolition of commercial, industrial or residential structures that may contain ACM, LBP [lead-based paint] and/or other hazardous materials and as a result, the project would represent a significant hazard to the public or the environment. (County of San Diego 2007a:21–22)

Landfill and Burn Hazards

- The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burn sites) and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.

Airport Hazards

- The project is located within an established AIA for a public or public use airport and proposes a development intensity, flight obstruction, or other land use that conflicts with the ALUCP or CLUP [Comprehensive Land Use Plan] (if no ALUCP is adopted) and as a result, the project may result in a significant airport hazard. (County of San Diego 2007b:12)

Emergency Response Plans

- The project proposes one of the following unique institutions in a dam inundation zone as identified on the inundation map prepared by the dam owner:
    - Hospital
    - School
    - Skilled nursing facility
    - Retirement home
    - Mental health care facility
    - Care facility with patients that have disabilities
    - Adult and childcare facility
    - Jails/detention facility
    - Stadium, arena, amphitheater
    - Any other use that would involve concentrations of people that could be exposed to death in the event of a dam failure
- The project proposes a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response. (County of San Diego 2007c:7–8)

Additionally, the following guiding question from Appendix G of the State CEQA Guidelines (14 CCR 15000 et seq.) applies to both the direct impact analysis and the cumulative impact analysis. A significant impact would result if the effects exceed the significance criteria described below:

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Hazardous Substance Handling

Guidelines for the Determination of Significance

A significant impact related to hazardous substance handling would result if the effects of the project exceed the significance criteria described below in *Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a:20):

- The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC, and the project will not be able to comply with applicable hazardous substance regulations.
- The project is a business, operation, or facility that would handle regulated substances subject to CalARP risk management plan requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within one quarter mile of the facility.

Analysis

During construction, operation and maintenance, and decommissioning of the project, hazardous materials, such as petroleum products and maintenance chemicals, would be brought to and used on the project site. As described in Section 3.1.5.2 Regulatory Setting, federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such hazardous materials. The project site would include the use and storage of limited quantities of lubricants and cleaners potentially covered under H&SC Chapter 6.5, which would be used to maintain the on-site equipment and facilities. Storage and handling of any materials covered under Chapter 6.95 of the H&SC would be undertaken in accordance with all applicable regulations. The project would not include any other on-site storage, use, or transport of hazardous materials as a part of normal operations in quantities equal to or greater than 55 gallons, 500 pounds, or 200 cubic feet of substances classified as hazardous materials, which would necessitate the need to develop an HMBP in accordance with Chapter 6.95 of the H&SC, Division 20. No underground storage tanks are proposed as a part of the project. The project would comply with all applicable regulations governing the use of hazardous substances during construction.

The project includes a battery energy storage system (BESS) that would store up to 217.4 megawatts of electricity for dispatch into the local SDG&E grid. The BESS would consist of individual batteries in cabinets, which are 6 feet wide, 5.5 feet deep, and 8 feet tall. The batteries would be double-loaded along a 70-foot-long concrete skid. In addition, a battery conversion system would be constructed within the BESS, which would be 8 feet wide, 20 feet deep, and 9.5 feet tall. The conversion system would be constructed on a concrete skid measuring 20 feet long × 12 feet wide. Each storage cabinet will be completely outdoor accessible (with no internal access).

Each steel container would hold rechargeable lithium iron phosphate or similar safety battery packs on racks throughout a metal frame storage cabinet. As project design is refined, the battery system may be included in the HMBP in accordance with Chapter 6.95 of the H&SC, Division 20. The primary hazards associated with lithium iron phosphate batteries are overheating and fire caused by thermal runaway. Thermal runaway is a temperature-triggered process that produces heat faster than the battery can cool, thus leading to temperature increases that can eventually lead to a fire.

The battery storage cabinets would be constructed on concrete pads, with cabinets bolted to the pads. Each battery storage cabinet would be insulated, air conditioned, and include fire suppression, with separate enclosures for the electronic controls, inverters, and rectifiers. There would be a built-in heat detection and fire protection system and an aerosol fire extinguishing system. The heat and fire detection system would

be linked to an automatic inert gas suppression system within each cabinet. The National Fire Protection Association (NFPA) has developed NFPA 855, Standard for the Installation of Stationary Energy Storage Systems (NFPA 2023). This standard addresses the design, construction, installation, commissioning, operation, maintenance, and decommissioning of stationary energy storage systems. The system would be designed in accordance with applicable NFPA safety standards. The cabinets would be situated to enable emergency response access. The cabinets would be sited with a setback from off-site areas as a buffer against potential wildfire ignitions. The cabinets would not be walk-in containers; thus, the battery storage cabinets would be non-habitable structures per the state and local fire codes that are in place at the time a building permit application would be submitted to the County. The system would also be designed in accordance with, and would satisfy all requirements of, the California Fire Code (CFC) and San Diego County Fire Department *Interim Fire Protection Guidelines for BESS Facilities*, as well as meet other applicable state and local requirements.

As the final selection of the lithium iron phosphate-based energy storage system technology remains in process, several preliminary studies (based upon an assumed technology) that are typically required for the completion of a CFC Section 1207.1.4, Hazard Mitigation Analysis, have been prepared for the proposed project and included in this EIR as the following appendices:

- Appendix O.1 Preliminary Battery Energy Storage System Fire Risk Assessment and Heat Flux Analysis
- Appendix O.2 Preliminary Battery Energy Storage System Failure Mode and Effects Analysis
- Appendix O.3 Preliminary Balance of Plant Fire Risk Assessment
- Appendix O.4 Preliminary Balance of Plant Failure Mode and Effects Analysis
- Appendix O.5 Preliminary Balance of Plant Hazard Mitigation Analysis
- Appendix O.6 Preliminary First Responders Guide

These preliminary analyses address the BESS and other components of the solar energy facility (referred to above as the "balance of plant"). These analyses will be finalized and updated when the BESS technology is selected and as part of the Construction Authorization Submittal.

The project site is not located within 0.25 mile of an existing or proposed school. The nearest school is Clover Flat Elementary School, located approximately 0.75 mile northwest of the project site. Based on the analysis provided, the project would comply with hazardous substance regulations, would not expose persons to hazardous materials, and would not produce hazardous emissions within 0.25 mile of an existing or proposed school or day care facility. The project would comply with all applicable regulations, including CalARP, NFPA, CFC, and Chapter 6.5 of the H&SC. Therefore, **impacts would be less than significant**.

On-Site Contamination

Guidelines for the Determination of Significance

A significant impact related to existing on-site contamination would result if the effects of the project exceed the significance criteria described below in the County's *Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a):

- The project is located on or within one quarter mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.

- The project is proposed on or within 1,000 feet of a Formerly Used Defense Site (FUDS) and it has been determined that it is probable that munitions or other hazards are located on site that could represent a significant hazard to the public or the environment.
- The project could result in human or environmental exposure to soils or groundwater that exceed EPA Region 9 PRGs, CalEPA CHHSLs, or Primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants and the exposure would represent a hazard to the public or the environment.
- The project will involve the demolition of commercial, industrial or residential structures that may contain ACM, lead-based paint and/or other hazardous building materials and as a result, the project would represent a significant hazard to the public or the environment.

Analysis

No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the project site (see Appendix I). The project site has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases. No portion of the project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 or within 1,000 feet of a FUDS and would not create a significant hazard (see Appendix I). Sites identified in the EnviroStor and GeoTracker databases are discussed above in Section 3.1.5.1, Existing Conditions; none are located on the project site. Other Cortese List sites were not identified on or within 1 mile of the project site. The project site also does not contain contaminated soils or groundwater that would result in human or environmental exposure. Therefore**,** impacts related to on-site contamination would be **less than significant.**

Construction of the project would not include demolition of any existing structures on the project site. Therefore, there would be no hazardous materials (asbestos, mercury, LBP, etc.) encountered during site development and demolition activities that would pose a risk to humans.

During decommissioning, the aboveground (detachable) equipment and structures would be disassembled and removed from the site when it became time to remove or replace equipment. Detachable elements include all photovoltaic modules and support structures, battery storage units, inverters, transformers, and associated controllers. Removal of the fencing, substation, and aboveground conductors on the transmission facilities would also be implemented. Underground collector and transmission components would be removed. Materials that cannot be recycled or reclaimed would be limited and would be contained and disposed of off-site, consistent with the County's Construction and Demolition Materials Diversion Program (County of San Diego Code of Regulatory Ordinances Sections 68.508–68.518). Project decommissioning would comply with Section 6954.b.3 (d) of the County of San Diego Zoning Ordinance for removal surety as follows:

> The operator shall provide security in the form and amount determined by the Director to ensure removal of the Solar Energy System. The security shall be provided to PDS [Planning and Development Services] prior to building permit issuance. Once the Solar Energy System has been removed from the property pursuant to a demolition permit to the satisfaction of the Director, the security may be released to the operator of the Solar Energy System.

Therefore, the impact related to demolition of hazardous materials-containing structures would be **less than significant**.

Landfill and Burn Hazards

Guidelines for the Determination of Significance

A significant impact related to landfill and burn hazards would result if the effects of the project exceed the significance criteria described below in *Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a):

- The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burn sites) and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.

Analysis

The project site is not within 1,000 feet of an open, abandoned, or closed landfill. Per the Phase I Environmental Site Assessment, no indication of on-site solid waste disposal practices (i.e., landfills) was apparent during the site inspection, and the project does not propose structures for human occupancy. The Phase I Environmental Site Assessment confirmed that the project is not on or within 250 feet of a parcel containing burn ash. Therefore, **no impact would occur** related to landfill and burn hazards.

Airport Hazards

Guidelines for the Determination of Significance

A significant impact related to airport hazards would result if the effects of the project exceed the significance criteria described below in *Guidelines for Determining Significance – Airport Hazards* (County of San Diego 2007b):

- The project is located within an established AIA for a public or public use airport and proposes a development intensity, flight obstruction, or other land use that conflicts with the ALUCP or CLUP (if no ALUCP is adopted) and as a result, the project may result in a significant airport hazard.
- The project is located within 2 miles of a public or public use airport or within 1 mile of a private airport, and proposes any of the following:
    - Residential densities inconsistent with the California Airport Land Use Planning Handbook's Safety Compatibility Criteria Guidelines for Maximum Residential Density and as a result, the project may result in a significant airport hazard.
    - Non-residential land uses that exceed the California Airport Land Use Planning Handbooks Safety Compatibility Criteria Guidelines for Maximum Non-Residential Intensity and as a result, the project may result in a significant airport hazard.
    - An incompatible use identified in the California Airport Land Use Planning Handbook's Safety Compatibility Criteria Guidelines for Safety Compatibility Zones – Prohibited Uses and as a result, the project may result in a significant airport hazard.

Analysis

The project site is not located within an airport land use plan or within 2 miles of a public use airport. The closest public airport is the Jacumba airport, over 7 miles east of the project site. The private Empire Ranch Airport, owned by the project Applicant, bisects the site and is located between the proposed solar areas at Empire Ranch. The airstrip is no longer in use. The project would not propose an incompatible residential or non-residential use. Therefore, impacts related to airport hazards would be **less than significant.**

Emergency Response Plans

Guidelines for the Determination of Significance

A significant impact related to emergency response plans would result if the effects of the project exceed the significance criteria described below in *Guidelines for Determining Significance – Emergency Response Plans* (County of San Diego 2007c):

- The project proposes one of the following unique institutions in a dam inundation zone as identified on the inundation map prepared by the dam owner:
    - Hospital
    - School
    - Skilled nursing facility
    - Retirement home
    - Mental health care facility
    - Care facility with patients that have disabilities
    - Adult and childcare facility
    - Jails/detention facility
    - Stadium, arena, amphitheater
    - Any other use that would involve concentrations of people that could be exposed to death in the event of a dam failure
- The project proposes a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response.

Analysis

Dam Inundation Zones

The project consists of a solar facility, BESS, and associated infrastructure, and would be unstaffed during operation. The project would not involve concentrations of people that could be exposed to death in the event of a dam failure. Further, as discussed in Section 2.4, Hydrology and Water Quality, the project site is not located in a dam inundation zone. Therefore, the project would not conflict with an emergency response plan related to siting unique institutions in a dam inundation zone and would have **no impact.**

Hazards to Emergency Response Aircraft

Structures or towers that are placed along ridgelines where no structures or towers of similar height already exist could present safety concerns for emergency response aircraft and could increase the risks associated with aviation activities for emergency response. The project would not construct structures over 100 feet in

height. The project would construct an approximately 3-acre substation that would be located near the northeastern portion of the project site. The substation equipment would use earth-toned coloring and the tallest equipment within substation boundaries would have a maximum height of 50 feet. A gen-tie line from the on-site substation would cross Tule Jim Lane with a short overhead section (two 50-foot-high steel poles) and continue underground to the Boulevard substation. These structures would not be located on a ridgeline and would be close to the existing Boulevard substation and other poles and towers with similar heights. Therefore, the project would not construct structures 100 feet or greater in height that could cause hazards to emergency response aircraft. The project would not interfere with aircraft emergency response; impacts would be **less than significant**.

3.1.5.4 Cumulative Impact Analysis

Cumulative, Hazardous Substance Handling

Compliance with applicable laws and regulations would reduce the risk of an accidental release of a hazardous material, and the use of hazardous materials on the solar facility site for their intended purpose is not expected to pose a hazard to the public or environment. The cumulative projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting, would also be subject to all applicable laws and regulations governing the use, storage, and disposal of hazardous materials.

Other cumulative projects, including each of those listed in Table 1-4 (see Chapter 1.0), would be required to survey for potential areas of hazardous contamination and, if such areas were found, would be required to manage contaminated areas in accordance with applicable federal, state, and local regulations whereas to not impact nearby areas. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to hazardous sites contamination.

Additionally, as stated previously, during construction, operation and maintenance, and demolition of the project, hazardous materials, such as petroleum products and maintenance chemicals, would be brought to and used on the sites. Numerous federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such hazardous materials. Compliance with applicable laws and regulations would reduce the risk of an accidental release of a hazardous material, and the use of hazardous materials on the project site for their intended purpose is not expected to pose a hazard to the public or environment. The cumulative projects listed in Table 1-4 (see Chapter 1.0) would also be subject to all applicable laws and regulations governing the use, storage, and disposal of hazardous materials.

Other renewable energy projects in the area pose similar risks associated with handling, use, transportation, storage, and disposal of hazardous materials as the project. The project, as with all other cumulative projects, would comply with applicable laws and regulations intended to minimize the risk and threat to public health from the accidental release of hazardous materials. With adherence to all applicable laws, the risk of an accidental release of a hazardous material from the project and cumulative projects would not pose a hazard to the public or environment and **would not result in a cumulatively considerable impact**.

The project is not located within 0.25 mile of a school and would not include the use of a regulated substance subject to CalARP risk management plan requirements (per 19 CCR Division 2, Chapter 4.5). The nearest school is Clover Flat Elementary School, located approximately 0.75-mile northwest of the project site. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to emissions of regulated substances subject to CalARP risk management plan requirements.

No demolition of hazardous material-containing structures is proposed. The projects in the nearby area have the potential to contain buildings with asbestos that may be demolished. In accordance with Cal/OSHA, California Department of Public Health, and San Diego County Air Pollution Control District, the removal of these materials by a certified abatement contractor is required, reducing potential impacts below levels of significance. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to hazardous materials as a result of demolition of on-site structures.

Cumulative, On-Site Contamination

As previously discussed, no existing hazardous materials, RECs, or evidence of soil contamination are present on the project site. The project site is not located on a hazardous material site listed under Government Code Section 65962.5 or a FUDS site, and there are no impacts on-site from nearby sites. Therefore, the project would not result in exposure to contaminated soils or groundwater exceeding federal or state screening levels. Cumulative projects would be required to identify any hazardous sites or potentially hazardous existing contamination, which would be handled on a project-by-project basis. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to hazardous sites.

Cumulative, Landfill Hazards

The project would not develop structures for human occupancy within 1,000 feet of an open, abandoned, or closed landfill or within 250 feet of the boundary of a parcel identified as containing burn ash. No evidence suggests that the project site has been used for historic waste disposal or burning of trash. Cumulative projects would be required to identify any landfill hazards and comply with any applicable laws. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to landfill hazards.

Cumulative, Airport Hazards

Cumulative projects would be required to ensure that airport and aircraft safety is provided, with FAA notifications as necessary. Where potential hazards are identified, projects would be modified or required to include markings and/or lighting. While several of the cumulative projects are located within the Jacumba AIA, the proposed project is located outside the Jacumba AIA, approximately 7 miles west of the Jacumba Airport. With compliance with FAA regulations through Form 7460-1, the cumulative projects would not result in any safety hazard impact associated with air traffic in the area and would not result in excessive noise for people working in the area. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** associated with airport hazards.

Cumulative, Emergency Response Plans

Cumulative projects in the area would have the potential to impair existing emergency and evacuation plans during construction, operation, and decommissioning. This could occur from any of the following: (1) an increase in population that is induced from cumulative projects which are unaccounted for in emergency plans; (2) an increase in population that emergency response teams are unable to service adequately in the event of a disaster; or (3) evacuation route impairment if multiple development projects concurrently block multiple evacuation or access roads, such as during construction, resulting in impaired emergency response times. For emergency response, the cumulative study area would be the SDCFA and CAL FIRE jurisdictional boundaries. Other projects would be evaluated to ensure project implementation does not block evacuation or access roads during construction, operation, or decommissioning. Thus, the project in

combination with cumulative projects, **would not result in a cumulatively considerable impact** regarding interference with emergency responses.

3.1.5.5 Conclusion

The project would comply with hazardous substance regulations, would not expose persons to hazardous materials, and would not handle regulated substances within 0.25 mile of an existing or proposed school or daycare facility. No demolition of hazardous material-containing structures is proposed. The project would comply with all applicable regulations, including CalARP and Chapter 6.5 of the H&SC. All other elements of the project would also comply with all applicable federal, state, and local laws and regulations regarding hazards and hazardous materials. Impacts related to hazards and hazardous materials would be **less than significant**.

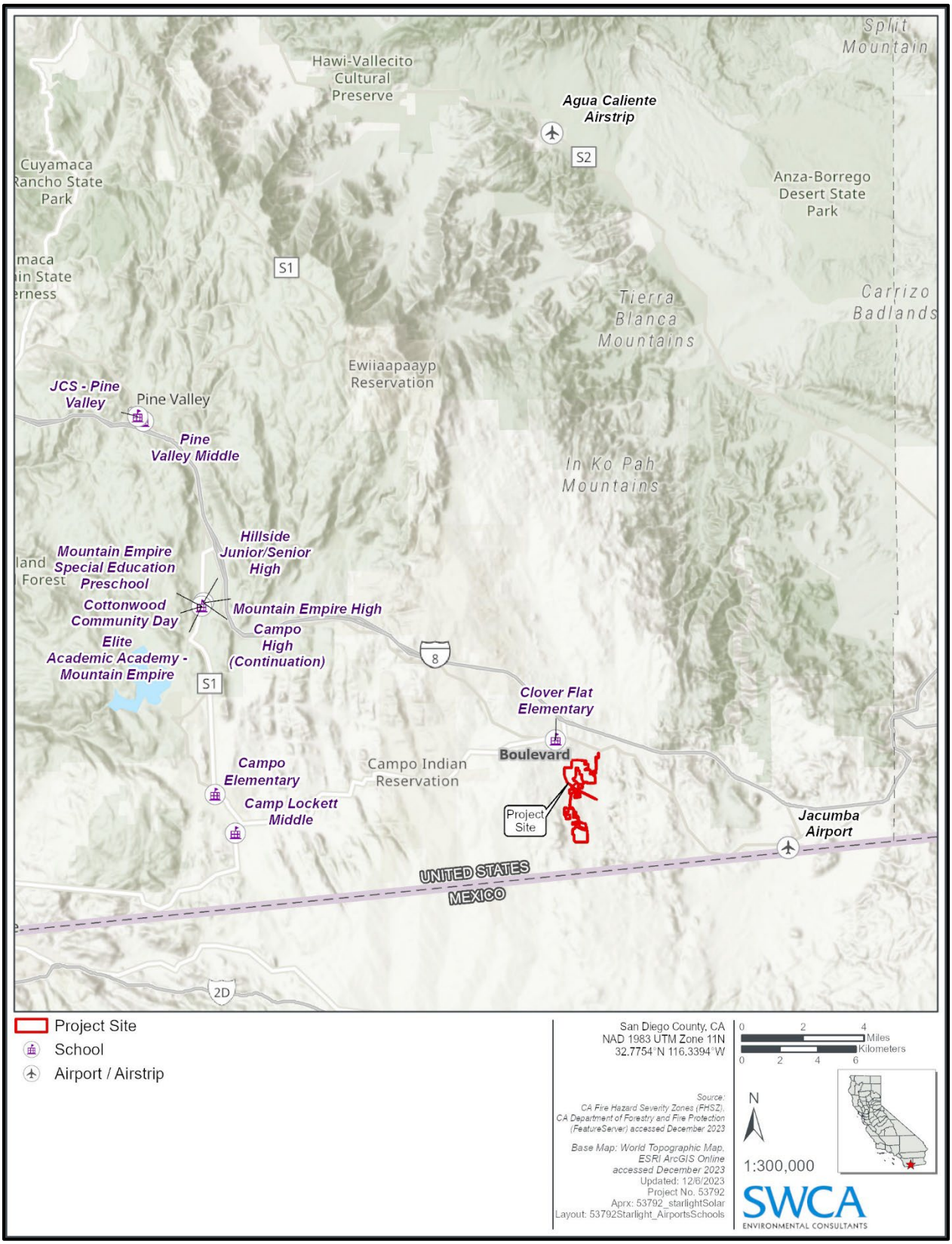

Figure 3.1.5-1. Schools and Airports in Project Vicinity

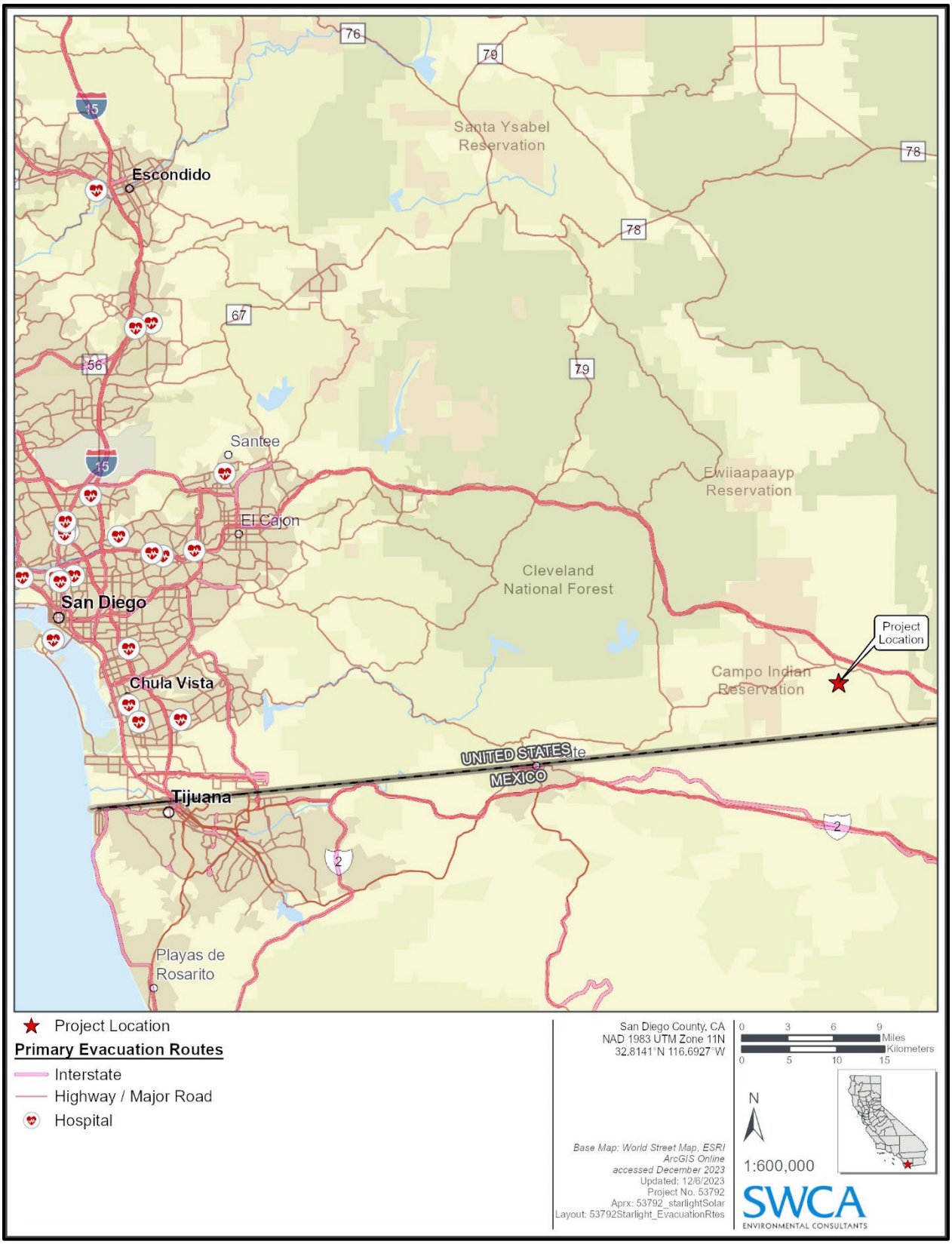

Figure 3.1.5-2. Evacuation Routes

3.1.6 Land Use and Planning

This section of the Environmental Impact Report (EIR) discusses and analyzes potential land use conflicts resulting from the implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project:

- *Visual Resources Assessment for the Starlight Solar Project* (SWCA Environmental Consultants [SWCA] 2024a) (Appendix C of this EIR).
- Climate Action Plan Consistency Review Checklist for Starlight Solar (SWCA 2025) (Appendix H.3 of this EIR).

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the project's location near conflicting land uses (residential and agricultural), cumulative impacts of the proposed project with existing and future solar projects in the area, changes in the community character, and impacts to land value in Boulevard. These concerns are addressed in this section of the EIR where applicable. Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.6.1 Existing Conditions

Existing Land Uses

The project site is on privately owned land in southeastern unincorporated San Diego County within the Boulevard Subregional Planning Area, a subarea of the Mountain Empire Subregion. The Boulevard Subregional Planning Area encompasses about 55,350 acres and includes the communities of Boulevard, Manzanita, Live Oak Springs, Tierra Del Sol, Crestwood, Jewel Valley, McCain Valley, Miller Valley, and a portion of Bankhead Springs (County of San Diego 2013). The Mountain Empire Subregion is the third largest planning area in unincorporated San Diego County, covering approximately 303,900 acres (County of San Diego 2016). This subregion is bounded by Mexico to the south, Imperial County to the east, the Jamul/Dulzura Community Planning Area (CPA) to the west, the Alpine CPA to the northwest, and the Central Mountain and Desert Subregions to the north. It extends along Interstate 8 (I-8) from south of Buckman Springs to the Imperial County line and along State Route 94 east of Barrett Junction. Approximately 27,000 acres within this subregion are under tribal ownership by the Campo, Cuyapaipe, La Posta, and Manzanita Indian Tribes.

Project Site

The project site consists of a 588-acre portion of the 3,874-acre property known as Empire Ranch, which has historically been used for ranching and recreation. Empire Ranch includes a ranch compound, located directly south of Jewel Valley Road, with several single-family homes, bunkhouses, and corrals, as well as a private airstrip. The private airstrip has been used periodically by the owner of the property, but it is no longer in use. Livestock have been raised at varying levels over the years. The Empire Ranch property has no significant usage other than by the ranch manager and is undeveloped.

The project site includes 18 parcels both north and south of the residential compound and includes the airstrip. The majority of the land is undeveloped, has no existing structures, and is predominantly covered with natural vegetation, particularly chaparral. See Section 2.2, Biological Resources, for additional information regarding vegetation communities on-site. In addition to natural vegetation, the project site includes some roadways, railroad tracks, and field/pasture areas. These areas may have hosted cattle in the past.

Surrounding Land Uses

The project site is in an unincorporated area within southeastern San Diego County, in the Mountain Empire Subregional Planning Area. The northernmost point of the project site is approximately 1 mile southeast of the community of Boulevard. Boulevard is a linear community containing commercial development, residences, and semi-rural land uses clustered along Old Highway 80, south of the I-8 corridor. Large rural properties, single-family homes, small-scale agriculture, recreational opportunities, and areas of undeveloped lands surround the town center to the east, south, and west (Figure 3.1.6-1).

The project site is located south of I-8 and Old Highway 80, and east of Tierra Del Sol Road (Figure 1.2 in Chapter 1.0, Project Description, Location, and Environmental Setting). Access to the project site would be provided by Jewel Valley Road, which connects to Old Highway 80. Jewel Valley Road is a local community roadway that bisects the project site into north/south sections and connects residences south of the project site to the community of Boulevard and I-8. Old Highway 80 is a two-lane local travel route that passes in proximity to the site and is adjacent to the San Diego Gas and Electric Company (SDG&E) Boulevard substation. Private non-paved roads serve as ingress and egress access for the majority of residences and properties in the Boulevard area.

The project site includes an easement for the Desert Line of the San Diego & Arizona Eastern Railway (SD&AE), which originates in San Diego and terminates in El Centro. The project would span the railroad in the southern portion of the site. Construction of the railway was initiated in 1907; the San Diego Metropolitan Transit System (MTS) has owned the Desert Line portion of the railway since 1979 (MTS 2013). Although portions of the SD&AE are in use, the Desert Line, which runs from Tecate, Mexico to Plaster City, California, has been shut down since 2008. The segment within the project site is considered an active freight rail; however, the line has not been used in years due to safety concerns and general disrepair. The MTS has been seeking to reopen the Desert Line; however, the line is in poor condition and would require extensive repairs and rebuilding (*San Diego Tribune* 2021; Trains 2021).

The SDG&E Boulevard substation, related transmission line infrastructure, and a California Department of Transportation (Caltrans) materials yard are approximately 0.75 mile northeast of the project site along Old Highway 80. A high-voltage transmission line connects to the SDG&E Boulevard substation and comes within 0.35 mile of the northern project site boundary. The transmission line runs west between residences on Old Highway 80 and the project boundary and continues west along Jewel Valley Way, crossing Jewel Valley Road.

General Plan Land Use and Zoning

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) designates a majority of the project site (16 of the 18 parcels) as Rural Lands 80 (RL-80) (see Figure 3.1.6-1). RL-80 indicates a permitted density of one dwelling unit (DU) per 80 acres. The Rural Lands category is applied to large open space and very low-density private and publicly owned lands that provide for agriculture, managed resource production, conservation, and recreation, and thereby retain the rural character for which much of unincorporated San Diego County is known. Rural areas are not appropriate for intensive residential or commercial uses due to significant topographical or environmental constraints, limited access, and the lack of public services. Two parcels (Assessor's Parcel Numbers 612-092-1300 and 612-090-59) are designated Semi-Rural Residential (SR-10) which allows a density of one DU per acre (Appendix B.1, Major Use Permit Site Plans). These parcels contain the existing Boulevard substation and part of the generation-tie (gen-tie) line that would connect the solar array to the substation. The SR-10 category identifies areas of San Diego County that are appropriate for lower-density residential neighborhoods, recreation areas, agricultural operations, and related commercial uses that support rural communities (County of San Diego 2025a).

Under the County of San Diego (County) Zoning Ordinance, the entire project site is zoned as General Rural (S92), as shown in Figure 3.1.6-2 (County of San Diego 2025a). No portion of the project site is subject to any Special Area Regulations. The S92 Use Regulations provide appropriate controls for land that is rugged terrain, watershed, dependent on ground water for a water supply, desert, susceptible to fires and erosion, or subject to other environmental constraints (County of San Diego 2020a). Agricultural use types including horticulture (all types), tree crops, and row and field crops are permitted by the S92 Use Regulations.

The entire project site is bounded by lands designated as RL-80, Rural Lands 40 (RL-40, one DU per 40 acres), or SR-10, and all are zoned S92. To the east of the project site are several parcels owned by California State Parks, zoned S-80 and designated Public Agency Lands. The S-80 zoning district is intended for recreation areas or areas with severe environmental constraints. Portions of the community of Boulevard along Jewel Valley Way and Fisher Road are designated as RL-40 and SR-10.

3.1.6.2 Regulatory Setting

Federal Regulations

No relevant federal policies concerning land use would be applicable to the proposed project.

State Regulations

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, also known as the Williamson Act, enables local governments to enter contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. The landowners receive property tax assessments that are much lower than normal because they are based on farming and open space uses instead of full market value (California Department of Conservation 2024).

California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is provided in the California Planning and Zoning Law Sections 65000 through 66499.58. Under state planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

Local Regulations

San Diego County 2024 Climate Action Plan Update

The County has developed the 2024 Climate Action Plan (CAP) Update, a comprehensive strategy to reduce greenhouse gas (GHG) emissions in its unincorporated communities. In July 2024, the Planning Commission recommended adoption of the final CAP to the County Board of Supervisors. On September 11, 2024, the County Board of Supervisors adopted the CAP (County of San Diego 2025b). The 2024 CAP Update identifies strategies, measures, and actions to meet the County's targets to reduce GHG emissions by 2030 and 2045, consistent with the state's 2022 Scoping Plan for Achieving Carbon Neutrality and

legislative GHG reduction targets and demonstrates progress toward the state's 2045 net zero GHG emissions goal. The CAP's attainment of the County's GHG reduction targets is the result of (1) several initiatives to be directly implemented by the County and (2) incorporation of GHG reduction features into the construction and operation of development projects (including County-initiated and privately-initiated projects).

In order to demonstrate consistency with the 2024 CAP Update, the County has developed a CAP Consistency Checklist. The checklist establishes a two-step process to determine if a project is consistent with the CAP. Step 1 of the checklist evaluates a project's consistency with the growth projections used in the CAP to estimate future GHG emissions from activities in unincorporated areas of San Diego County. Since the CAP uses growth projections based on the adopted General Plan, the first step in determining a project's consistency with the CAP is to demonstrate its alignment with the regional categories and land use designations of the General Plan. All projects must show consistency with the existing General Plan regional categories, land use designations, and the uses and development density and intensity allowed under the Zoning Ordinance. If a project is consistent with the General Plan, then Step 2 of the checklist should be completed. If a project is not consistent with the regional categories or land use designations of the General Plan, it cannot use the CAP Consistency Checklist for California Environmental Quality Act (CEQA) streamlining. Step 2 of the checklist outlines CAP measures and actions as "consistency requirements" that project proponents must incorporate into their projects to demonstrate compliance with the CAP. Projects are required to show consistency with the CAP requirements or explain why the requirements are not applicable. Appendix H.3 presents the project's 2024 CAP Consistency Checklist.

San Diego County Zoning Ordinance

The Zoning Ordinance (County of San Diego 2025a) is the primary way that the County administers the General Plan. The General Plan identifies general land use designations, while the Zoning Ordinance identifies specific uses and development standards within these land use designations. Future development is required to comply with the Zoning Ordinance and would therefore be consistent with the General Plan.

The Zoning Ordinance regulates land uses in the unincorporated portions of San Diego County and specifies permitted uses on established land use zones. As stated previously, the entire project site is zoned General Rural (S92). As outlined in Section 2920 through Section 2929, the S92 zone is intended for residential and agricultural development and is typically applied to environmentally constrained lands (e.g., rugged terrain, watershed, groundwater-dependent, susceptible to fire or erosion). Permitted development in the S92 zone includes low-intensity recreational uses, residences on large parcels, and animal grazing. Minor and major impact utilities may be allowed with approval of a use permit. The applicable setbacks associated with the S92 zone are 60 feet (front yard), 15 feet (interior side yard), 35 feet (exterior side yard) and 25 feet (rear yard).

Section 1350 of the County Zoning Ordinance defines Major Impact Services and Utilities, and Section 1355 defines Minor Impact Utilities. Major Impact Services and Utilities are defined as "public or private services and utilities which have substantial impact" and minor utilities are defined as "public utilities which have a local impact on surrounding properties and are necessary to provide essential services", including electrical distribution substations. Minor Impact Utilities require a Minor Use Permit, while Major Impact Services and Utilities require a Major Use Permit (MUP). Upon issuance of either a Minor Use Permit or MUP, Minor Impact Utilities and Major Impact Services and Utilities are permitted uses within each of the County-designated zones. However, as noted in Section 1350, Major Impact Services and Utilities may be conditionally permitted in any zone if it is determined that public interest supersedes the usual limitations placed on land use and transcends the usual restraints of zoning for reasons of necessary location and community-wide interest.

Section 6954(b)(2) of the County Zoning Ordinance provides direction for the development of photovoltaic (PV) solar energy systems for off-site use. According to the Zoning Ordinance, "A photovoltaic solar energy system for off-site use with a project area of 10 acres of more, or a combination of parcels with a combined area of 10 acres or more is a Major Impact Service and Utility in all zones and shall require a Major Use Permit permitted in accordance with the use permit procedure commencing at section 7350".

Section 6954(b)(3) states, "All other types of solar energy systems of solar power plants including concentrating solar power plants, parabolic troughs, concentrating linear Fresnel reflectors, Stirling solar dish, or a solar power tower are a Major Service and Utility in all zones and shall require approval of a Major Use Permit in accordance with section 7350 and the following requirements on any parcel of land":

a. Setback. A system or plant shall meet all of the setback requirements of the zone.
b. Height. A system or plant of more than 200 feet in height is required to comply with Federal Aviation Administration safety height requirements.
c. Visual. The following measures shall be followed in order to minimize the visual impact of the project:
    i. Removal of existing vegetation shall be minimized.
    ii. Internal roads shall be graded for minimal size and disruption.
    iii. Any accessory buildings shall be painted or otherwise visually treated to blend with the surroundings.
    iv. A structure shall be non-reflective in all areas possible to blend with the surroundings.
d. Security. The operator shall provide security in the form and amount determined by the Director to ensure removal of the Solar Energy System. The security shall be provided to the Department of Planning and Development Services (PDS) prior to building permit issuance. Once the Solar Energy System has been removed from the property pursuant to a demolition permit to the satisfaction of the Director, the security may be released to the operator of the Solar Energy System" (County of San Diego 2014a).

Section 7358 states that before any use permit may be granted or modified, it shall be found:

a. That the location, size, design, and operating characteristics of the proposed use will be compatible with adjacent uses, residents, buildings, or structures, with consideration given to:
    i. Harmony in scale, bulk, coverage and density;
    ii. The availability of public facilities, services and utilities;
    iii. The harmful effect, if any, upon desirable neighborhood character;
    iv. The generation of traffic and the capacity and physical character of surrounding streets;
    v. The suitability of the site for the type and intensity of use or development which is proposed; and to
    vi. Any other relevant impact of the proposed use; and
b. That the impacts, as described in paragraph "a" of this section, and the location of the proposed use will be consistent with the San Diego County General Plan.
c. That the requirements of the California Environmental Quality Act have been complied with.
d. That the applicant has provided the County with an owner consent letter demonstrating to the satisfaction of the Director that the operator of the Solar Energy System is authorized to use the

property for a Solar Energy System, unless the operator owns the land upon which the Solar Energy System will be located.

Solar Energy System, Off-site Use, is defined by Ordinance No. 10072 (New Series) as "a solar energy conversion system consistent with the requirements of section 6954 for off-site energy use. The energy generated is predominately used off site" (County of San Diego 2010).

Section 4835 of the Zoning Ordinance states that a PV solar energy system is permitted to encroach in the front yard setback (as long as it is not more than 30 inches above grade), the interior side yard (may not exceed 12 feet in height), the exterior side yard (as long as it is not more than 30 inches above grade), and the rear yard (as long as it does not exceed 12 feet in height nor cover more than 50% of the required yard in combination with all detached accessory structures).

However, Section 4813 of the Zoning Ordinance states, "When a major use permit for a use or structure is granted, the use permit may authorize an exception to the Setback Regulations and establish other setback and spacing requirements as a condition thereof."

San Diego County Noise Ordinance

The San Diego County Code of Regulatory Ordinances Title 3, Division 6, Chapter 4, Sections 36.401–36.435, Noise Ordinance (Noise Ordinance) establishes prohibitions for disturbing, excessive, or offensive noise, as well as provisions such as sound level limits to secure and promote the public health, comfort, safety, peace, and quiet for its citizens. Planned compliance with sound level limits and other specific parts of the Noise Ordinance allows presumption that the noise is not disturbing, excessive, or offensive. Limits are specified depending on the zoning placed on a property (e.g., varying densities and intensities of residential, industrial, and commercial zones). Where two adjacent properties have different zones, the sound level limit at a location on a boundary between two properties is the arithmetic mean of the respective limits for the two zones, except for extractive industries. It is unlawful for any person to cause or allow the creation of any noise that exceeds the applicable limits of the Noise Ordinance at any point on or beyond the boundaries of the property on which the sound is produced. Section 36.404 of the Noise Ordinance contains sound level limits specific to receiving land uses.

County Board of Supervisors Policies

The County Board of Supervisors has the responsibility of establishing policy to guide the various functions of the County and, where necessary, to establish procedures by which functions are performed. Regulatory policies established by the board usually are adopted by ordinance and included in the County Code of Regulatory Ordinances. Other policy matters are included by ordinance in the Administrative Code. A third group of policies that by their nature do not require adoption by ordinance are adopted by statement of action of the board. These policies are consolidated in the *San Diego County Board of Supervisors Policy Manual* (County of San Diego 2025c). The Board of Supervisors serves as the primary legal authority to approve legal documents on behalf of the County.

The following County Board of Supervisors policies are applicable to the project (County of San Diego 2025c):

- Policy I-18: Right-of-Way Dedication and Public Improvement Requirements in Connection with Major and Minor Use Permits

    1. Where application is made pursuant to the Zoning Ordinance for a Major or Minor Use Permit and it is found that road improvements, drainage, sewage, fire protection, or other public facilities and improvements (including the land, easements and rights-of-way therefore) are necessary to insure that the establishment or maintenance of the requested use will not be

materially detrimental to the public health, safety or welfare or to the property or improvements in the vicinity and zone in which the subject property is located, such use permit shall be issued only upon conditions that provision be made for such improvements and facilities (including the land, easements and rights-of-way therefore).

- Policy I-49: Distribution of Notification of Land Use Hearings

  1. Notices of permit applications shall be posted on site in a manner set forth by the Director of Planning & Development Services. The notices and posting guidelines will be provided to each applicant by Planning & Development Services at the time of project submittal.

  2. Residents of all apartment buildings and mobile home parks within 300 feet of the project site. Such notice shall be by posting in a conspicuous area approved by the management of the apartment building or mobile home park. The posted notice shall include information as to the nature and location of the project and a telephone number where interested parties may call for additional information. This notice shall be posted by the applicant within ten days of payment of processing fees. In the event that the posting of the notice is not allowed by the owner or management of any premises, the applicant shall notify Planning & Development Services within ten days.

- Policy I-60: Prohibition of Grading Until Annexation or Other Discretionary Actions are Completed

  1. A grading permit for any project requiring discretionary approvals shall not be issued until all discretionary permits or approvals that can be determined as necessary in light of the project detail shown on the plan or permit application or known or reasonably inferred by the County Official, including those by other governmental agencies, such as Special Districts, or the Coastal Commission have been obtained. Where the Board of Supervisors, the Planning Commission, Director of Planning and Development Services (PDS) or Zoning Administrator approval is conditional on discretionary actions by other governmental agencies, the resolution should note which actions, if any, are prerequisite to the issuance of a grading permit.

  2. PDS will inform the applicant after an initial review of a project application, of all County discretionary permits or approvals which will be necessary for the project and will ensure that the requirement for obtaining such permits or approvals is incorporated in any associated conditional approval. The applicant should be encouraged to seek relating County discretionary approvals by concurrent processing of appropriate applications.

- Policy I-73: Hillside Development Policy

  1. Development of building sites in hillside areas be planned and constructed in such a manner as to preserve, enhance or improve the physical features of the area consistent with providing building sites while at the same time optimizing the aesthetic quality of the final product. The design process set forth below shall be used as a guide to achieve the best possible hillside development. The guidelines set forth in this policy are purposely expressed in general terms to allow for flexibility in their application. It is recognized that at times difficulties may be encountered in interpreting some of these guidelines, but it is anticipated that appropriate decisions will be reached by the persons involved in the overall spirit and intent of this policy is respected. This policy is not intended to inhibit or restrict development, but rather to result in the best potential use of any site. This policy shall not apply to projects for which development applications have been filed, and fees paid, to the Department of Environmental Health or Planning & Development Services prior to the effective date of this policy. Where applicants are required to file first with the Department of Environmental Health, the applicant shall submit his full application to Planning & Development Services within 1 year of the date the application was first filed with the Department of Environmental Health.

- Policy I-74: Enforcement of Permitted and Non-Permitted Grading on Private Property

  B. Problem Grading Performed Under Permit: Permits issued for grading shall include and provide the County with:
     - Permits to enter property for correction if necessary;
     - Timing control over work done by permittee;
     - Security sufficient to complete work guaranteed by instrument of credit or cash;
     - Proof of ownership or owner's permission to grade; and
     - Administrative tools used for control of non-permitted grading shall be used to secure compliance with grading permits. This shall include withholding of building permits if necessary.

- Policy I-92: Undergrounding of Utilities – Waiver Requests

  The purpose of undergrounding is to improve the appearance of communities by removing unsightly overhead wires and poles and to increase reliability of service by placing these lines underground where they are less subject to incurring damage. Sections 81.404(a)(7), 81.707(b)(3), and 51.312 of the County Code of Regulatory Ordinances require undergrounding of new and existing utility distribution facilities, of up to 34.5 kV, including cable television lines, within the boundary or abutting half street of any new subdivision or centerline project. The developer is responsible for complying with these requirements.

  This requirement to underground utilities may be completely or partially waived only when it is deemed that undergrounding would be impossible or impractical. This policy is intended to provide guidelines for reviewing such waiver requests.

  1. Undergrounding may be waived if any of the following criteria are met:
     a. All other properties in the immediate area are completely "built out" to planned densities and uses and the established utility system for that area is overhead, OR
     b. Undergrounding would result in no reduction in the number of poles on or adjacent to the project, OR
     c. The cost of undergrounding is prohibitively high based on utility company estimates.

- Policy I-111: Discretionary Permits Adjacent to the International Border

  The policy is applicable for discretionary permits that are located within 150 feet from the international Border and provides for DHS [Department of Homeland Security] notification of such projects. The ordinance provides the opportunity for DHS to purchase rights or fee title to properties within 150 feet of the border in order to keep an open corridor to facilitate Border patrol movement. The policy does not apply to actions which do not propose building pads, structures or fencing within 150 feet of the border.

County of San Diego General Plan

The General Plan guides future growth in the unincorporated areas of San Diego County and considers projected growth anticipated to occur within various communities. Goals and policies from several General Plan elements were determined to be applicable to the project and are discussed in the sections that follow.

Land Use Element

The Land Use Element provides a framework to accommodate future development in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection

of valuable and sensitive natural resources (County of San Diego 2011b). Currently, the County is faced with both significant growth pressures and severe environmental constraints. While population continues to grow, the supply of land capable of supporting development continues to decrease. In accommodating this growth, the land use plan encourages the provision of diverse housing choices while protecting the established character of existing urban and rural neighborhoods. The Land Use Element provides a description of all land use designations applicable to land within the County and specifies the permitted uses on those land use designations.

The following policies of the Land Use Element are applicable to the proposed project:

- **LU-2.8: Mitigation of Development Impacts**. Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.
- **LU-4.6: Planning for Adequate Energy Facilities.** Participate in the planning of regional energy infrastructure with applicable utility providers to ensure plans are consistent with the County's General Plan and Community Plans and minimize adverse impacts to the unincorporated County.
- **LU-5.3: Rural Land Preservation**. Ensure the preservation of existing open space and rural areas (e.g., forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) when permitting development under the Rural and Semi-Rural Land Use Designations.
- **LU-5.5: Projects that Impede Non-Motorized Travel**. Ensure that development projects and road improvements do not impede bicycle and pedestrian access. Where impacts to existing planned routes would occur, ensure that impacts are mitigated and acceptable alternative routes are implemented.
- **LU-6.1: Environmental Sustainability**. Require the protection of intact or sensitive natural resources in support of the long-term sustainability of the natural environment.
- **LU-6.5: Sustainable Stormwater Management**. Ensure that development minimizes the use of impervious surfaces and incorporates other Low Impact Development [LID] techniques as well as a combination of site design, source control, and stormwater best management practices, where applicable and consistent with the County's LID Handbook.
- **LU-6.6: Integration of Natural Features into the Project Design**. Require incorporation of natural features (including mature oaks, indigenous trees and rock formations) into proposed development and require avoidance of sensitive environmental resources.
- **LU-6.9: Development Conformance with Topography**. Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of the site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.
- **LU-6.10: Protection from Hazards**. Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.
- **LU-8.2: Groundwater Resources**. Require development to identify adequate groundwater resources in groundwater dependent areas as follows:
    - In areas dependent on currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions.
    - Encourage programs to alleviate overdraft conditions in Boulevard.
    - In areas without current overdraft conditions, prohibit new groundwater-dependent development where overdraft conditions are foreseeable.

- **LU-8.3: Groundwater Dependent Habitat**. Discourage development that would significantly draw down the groundwater table to the detriment of groundwater-dependent habitat, except in the Borrego Valley.
- **LU-10.2: Development—Environmental Resource Relationship**. Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character and avoid sensitive or intact environmental resources and hazard areas.
- **LU-12.1: Concurrency of Infrastructure and Services with Development**. Require the provision of infrastructure, facilities, and service needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.
- **LU-12.2: Maintenance of Adequate Services**. Require development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. Provide improvements for the Mobility Element roads in accordance with the Mobility Element Network Appendix matrices, which may result in ultimate buildout conditions that achieve an improved Level of Service (LOS) but do not achieve a LOS or D or better.
- **LU-13.2: Commitment of Water Supply**. Require new development to identify adequate water resources, in accordance with state law, to support the development prior to approval.
- **LU 18.1: Compatibility of Civic Uses with Community Character.** Locate and design Civic uses and services to assure compatibility with the character of the community and adjoining uses, which pose limited adverse effects. Such uses may include libraries, meeting centers, and small swap meets, farmers markets, or other community gatherings.

Mobility Element

The Mobility Element provides a framework for a balanced, multimodal transportation system for the movement of people and goods within the unincorporated areas of San Diego County. The Mobility Element identifies the County road network so that rights-of-way can be preserved for future motorized and non-motorized roadway purposes (County of San Diego 2011c).

The following policies from the Mobility Element are applicable to the proposed project:

- **M-2.3:** Environmentally Sensitive Road Design. Locate and design public and private roads to minimize impacts to significant biological and other environmental and visual resources. Avoid road alignments through floodplains to minimize impacts on floodplain habitats and limit the need for constructing flood control measures. Design new roads to maintain wildlife movement and retrofit existing roads for that purpose. Utilize fencing to reduce road kill and to direct animals to under crossings.
- **M-2.5:** Minimize Excess Water Runoff. Minimize Excess Water Runoff. Require road improvements to be designed and constructed to accommodate stormwater in a manner that minimizes demands upon engineered stormwater systems and to maximize the use of natural detention and infiltration techniques to mitigate environmental impacts.
- **M-3.3: Multiple Ingress and Egress**. Require development to provide multiple ingress/egress routes in conformance with State law, and local regulations.
- **M-4.4: Accommodate Emergency Vehicles**. Design and construct public and private roads to allow for necessary access for appropriately sized fire apparatus and emergency vehicles while accommodating outgoing vehicles from evacuating residents.

- **M-4.5: Context Sensitive Road Design.** Design and construct roads that are compatible with the local terrain and the uses, scale and pattern of the surrounding development. Provide wildlife crossings in road design and construction where it would minimize impacts in wildlife corridors.
- **M-12.4: Land Dedication for Trails**. Require development projects to dedicate and improve trails or pathways where the development will occur on land planned for trail or pathway segments shown on the Regional Trails Plan or Community Trails Master Plan.

Conservation and Open Space Element

The primary focus of the Conservation and Open Space Element is to provide direction to future growth and development in San Diego County with respect to conservation, management, and utilization of natural and cultural resources, protection and preservation of open space, and provision of park and recreation resources (County of San Diego 2011d).

The following policies of the Conservation and Open Space Element are applicable to the proposed project:

- **COS-1.1: Coordinated Preserve System.** Identify and develop a coordinated biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.
- **COS-2.1: Protection, Restoration, and Enhancement.** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.
- **COS-2.2: Habitat Protection through Site Design**. Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.
- **COS-3.1: Wetland Protection**. Require Development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.
- COS-3.2: Minimize Impacts of Development. Require development projects to:
    - Mitigate any unavoidable losses of wetlands, including habitat functions and values; and
    - Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging, adding fill material, exposure to pollutants such as nutrients, hydromodification, land and vegetation clearing, and the introduction of invasive species.
- **COS-4.1: Water Conservation**. Require development to reduce waste of potable water through use of efficient technologies and conservation efforts that minimize the County's dependence on imported water and conserve groundwater resources.
- **COS-4.2: Drought-Efficient Landscaping**. Require efficient irrigation systems and in new development encourage the use of native plant species and non-invasive drought tolerant/low water use plants in landscaping.
- **COS-4.3: Stormwater Filtration**. Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces. This policy shall not apply in areas with high groundwater, where raising the water table could cause septic system failures, moisture damage to building slabs, and/or other problems.
- **COS-5.2: Impervious Surfaces**. Require development to minimize the use of directly connected impervious surfaces and to retain stormwater run-off caused from the development footprint at or near the site of generation.

- **COS-5.3: Downslope Protection**. Require development to be appropriately sited and to incorporate measures to retain natural flow regimes, thereby protecting downslope areas from erosion, capturing runoff to adequately allow for filtration and/or infiltration, and protecting downstream biological resources.
- **COS-5.5: Impacts of Development to Water Quality**. Require development projects to avoid impacts to the water quality in local reservoirs, groundwater resources, and recharge areas, watersheds, and other local water sources.
- **COS-7.1: Archaeological Protection**. Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources.
- **COS-7.2: Open Space Easements**. Require development to avoid archeological resources whenever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources.
- **COS-7.3: Archaeological Collections**. Require the appropriate treatment and preservation of archaeological collections in a culturally appropriate manner.
- **COS-7.4: Consultation with Affected Communities**. Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources.
- **COS-7.5: Treatment of Human Remains**. Require human remains be treated with the utmost dignity and respect and that the disposition and handling of human remains will be done in consultation with the Most Likely Descendant (MLD) and under the requirements of Federal, State and County Regulations
- **COS-9.1: Preservation**. Require the salvage and preservation of unique paleontological resources when exposed to the elements during excavation or grading activities or other development processes.
- **COS-9.2: Impacts of Development**. Require development to minimize impacts to unique geological features from human related destruction, damage, or loss.
- **COS-11.1: Protection of Scenic Resources**. Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.
- **COS-11.2: Scenic Resource Connections.** Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.
- **COS-11.3: Development Siting and Design**. Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:
    - Creative site planning
    - Integration of natural features into the project
    - Appropriate scale, materials, and design to complement the surrounding natural landscape
    - Minimal disturbance of topography
    - Clustering of development so as to preserve a balance of open space vistas, natural features, and community character.
    - Creation of contiguous open space networks

- **COS-11.4: Collaboration with Agencies and Jurisdictions.** Coordinate with adjacent federal and State agencies, local jurisdictions, and tribal governments to protect scenic resources and corridors that extend beyond the County's land use authority, but are important to the welfare of County residents.
- **COS-11.5: Collaboration with Private and Public Agencies.** Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, whenever feasible. Require the design of public improvements within visually sensitive areas to blend into the landscape.
- **COS-11.7: Underground Utilities**. Require new development to place utilities underground and encourage "undergrounding" in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.
- **COS-12.2: Development Location on Ridges.** Require development to preserve the physical features by being located down and away from ridgelines so that structures are not silhouetted against the sky.
- **COS-13.1: Restrict Light and Glare**. Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.
- **COS-13.3: Collaboration to Retain Night Skies.** Coordinate with adjacent federal and State agencies, local jurisdictions, and tribal governments to retain the quality of night skies by minimizing light pollution.
- **COS-14.4: Sustainable Technology and Projects**. Require technologies and projects that contribute to the conservation of resources in a sustainable manner, that are compatible with community character, and that increase the self-sufficiency of individual communities, residents, and businesses.
- **COS-14.7: Alternative Energy Sources for Development Projects**. Encourage development projects that use energy recovery, photovoltaic, and wind energy.
- **COS-14.8: Minimize Air Pollution**. Minimize land use conflicts that expose people to significant amounts of air pollutants.
- **COS-14.9: Significant Producers of Air Pollutants**. Require projects that generate potentially significant levels of air pollutants and/or GHGs such as quarries, landfill operations, or large land development projects to incorporate renewable energy, and the best available control technologies and practices into the project design.
- **COS-14.10: Low-Emission Construction Vehicles and Equipment**. Require County contractors and encourage other developers to use low‐emission construction vehicles and equipment to improve air quality and reduce GHG emissions.
- **COS-14.11: Native Vegetation**. Require development to minimize the vegetation management of native vegetation while ensuring sufficient clearing is provided for fire control.
- **COS-15.6: Design and Construction Methods**. Require development design and construction methods to minimize impacts to air quality.

- **COS-17.1: Reduction of Solid Waste.** Reduce greenhouse gas emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of solid waste that is generated. Divert solid waste from landfills in compliance with State law.
- **COS-17.2: Construction and Demolition Waste**. Require recycling, reduction and reuse of construction and demolition debris.
- **COS-18.1: Alternate Energy Systems Design**. Work with San Diego Gas and Electric and non-utility developers to facilitate the development of alternative energy systems that are located and designed to maintain the character of their setting.
- **COS-18.3: Alternate Energy Systems Impacts.** Require alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment.
- **COS-19.1: Sustainable Development Practices**. Require land development, building design, landscaping, and operational practices that minimize water consumption.

Safety Element

The purpose of the Safety Element is to provide safety considerations that will help minimize the risk of personal injury, loss of life, property damage, and environmental damage associated with natural and human-made hazards within the County (County of San Diego 2021). The County Board of Supervisors adopted the Safety Element in 2021.

The following policies of the Safety Element are applicable to the proposed project:

- **S-4.1: Defensible Development.** Require development to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life safety resulting from wildland fires.
- **S-4.2: Development in Hillsides and Canyons.** Require development located in wildland areas, near ridgelines, top of slopes, saddles, or other areas where the terrain or topography affects its susceptibility to wildfires to be located and designed to account for topography and reduce the increased risk from fires. Density reduction may be necessary to reduce fire hazards if the location and design of the development cannot reduce the threat effectively.
- **S-4.3: Minimize Flammable Vegetation.** Site and design development to minimize the likelihood of a wildfire spreading to structures by minimizing pockets or peninsulas, or islands of flammable vegetation within a development.
- **S-4.4: Service Availability.** Plan for development where fire and emergency services are available or planned.
- **S-4.5: Access Roads.** Require development to provide additional access roads where feasible to provide for safe access of emergency equipment and civilian evacuation concurrently. The width, surface, grade, radius, turnarounds, turnouts, bridge construction, vegetative management and brush clearance around roadways, and lengths of fire apparatus access roads shall meet the requirements of the State and San Diego County Consolidated Fire Codes. All requirements and any deviations will be at the discretion of the Fire Code Official.
- **S-4.6: Fire Protection Plans.** Ensure that development located within fire hazard areas implement measures in a Fire Protection Plan that reduce the risk of structural and human loss due to wildfire.
- **S-4.7: Fire Resistant Construction.** Require all new, remodeled, or rebuilt structures to meet current ignition resistance construction codes and establish and enforce reasonable and prudent standards that support retrofitting of existing structures in high fire hazard areas.

- **S-7.1: Water Supply.** Ensure that water supply infrastructure adequately supports existing and future development and provides adequate water flow to combat structural and wildland fires. Water systems shall equal or exceed the California Fire Code, California Code of Regulations, or, where a municipal-type water supply is unavailable, the latest edition of National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting."
- **S-7.2: Funding Fire Protection Services.** Require development to contribute its fair share towards funding the provision of appropriate fire and emergency medical services as determined necessary to adequately serve the project.
- **S-8.1: Development Location.** Locate development in areas where the risk to people or resources is minimized. In accordance with the California Department of Conservation Special Publication 42, require development be located a minimum of 50 feet from active or potentially active faults, unless an alternative setback distance is approved based on geologic analysis and feasible engineering design measures adequate to demonstrate that the fault rupture hazard would be avoided.
- **S-8.2: Risk of Slope Instability.** Prohibit development from causing or contributing to slope instability.
- **S-10.3: Development in Floodplains.** Limit development in designated floodplains to decrease the potential for property damage and loss of life from flooding and to avoid the need for engineered channels, channel improvements, and other flood control facilities. Require development to conform to federal flood proofing standards and siting criteria to prevent flow obstruction.
- **S-11.4: Stormwater Management.** Require development to incorporate low impact design, including site design, source control, and other measures to minimize stormwater impacts on drainage and flood control facilities and promote groundwater recharge, where feasible. In addition, require projects that are classified as Priority Development Projects to also incorporate pollutant control and hydromodification management measures.
- **S-11.5: Development Site Improvements.** Require development to provide necessary on- and off-site improvements to stormwater runoff and drainage facilities.
- **S-11.6: Stormwater Hydrology.** Ensure development avoids diverting drainages, increasing velocities, and altering flow rates to off-site areas to minimize adverse impacts to the area's existing hydrology.
- **S-13.5: Development Adjacent to Agricultural Operations.** Require development adjacent to existing agricultural operations in Semi-Rural and Rural Lands to adequately buffer agricultural areas and ensure compliance with relevant safety codes where pesticides or other hazardous materials are used.

Noise Element

The Noise Element of the General Plan provides for the control and abatement of environmental noise to protect citizens from excessive exposure. The Noise Element establishes Noise Compatibility Guidelines that characterize the noise environment in San Diego County, sets limitations on sound levels to be received by noise sensitive land uses, and outlines goals and policies to achieve these standards. The Noise Element also describes the County's goals for achieving the standards and introduces policies designed to implement the goals. The Noise Compatibility Guidelines indicate ranges of compatibility between land uses and proposed development projects and are intended to be flexible enough to apply to a range of projects and environments.

The following policies from the Noise Element (County of San Diego 2011e) are relevant to the project:

- **N-1.1: Noise Compatibility Guidelines.** Use the Noise Compatibility Guidelines (Table N-1) and the Noise Standards (Table N-2) as a guide in determining the acceptability of exterior and interior noise for proposed land uses.
- **N-1.2: Noise Management Strategies.** Require the following strategies as higher priorities than construction of conventional noise barriers where noise abatement is necessary:
    - Avoid placement of noise sensitive uses within noisy areas
    - Increase setbacks between noise generators and noise sensitive uses
    - Orient buildings such that the noise sensitive portions of a project are shielded from noise sources
    - Use sound-attenuating architectural design and building features
    - Employ technologies when appropriate that reduce noise generation (i.e., alternative pavement materials on roadways).
- **N-2.1: Development Impacts to Noise Sensitive Land Uses.** Require an acoustical study to identify inappropriate noise level where development may directly result in any existing or future noise sensitive land uses being subject to noise levels equal to or greater than 60 CNEL [community noise equivalent level] and require mitigation for sensitive uses in compliance with the noise standards listed in Table N-2 of the County's General Plan Noise Element.
- **N-3.1: Ground-Borne Vibration.** Use the Federal Transit Administration and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that sensitive uses may have to ground-borne vibration from trains, construction equipment, and other sources.
- **N-6.2: Recurring Intermittent Noise.** Minimize impacts from noise in areas where recurring intermittent noise may not exceed the noise standards listed in Table N-2, but can have other adverse effects.
- **N-6.4: Hours of Construction.** Require development to limit the hours of operation as appropriate for non-emergency construction and maintenance, trash collection, and parking lot sweeper activity near noise sensitive land uses.

Mountain Empire Subregional Plan

The *Mountain Empire Subregional Plan, San Diego County General Plan* (Mountain Empire Subregional Plan) (County of San Diego 2016) establishes goals and policies to guide development within the areas of Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba, and the Mountain Empire Balance (including the community of Tierra del Sol). The project site lies within the Mountain Empire Subregion. The Mountain Empire Subregional Plan, which was adopted by the San Diego County Board of Supervisors in 2011 and amended in 2016, is a part of and is consistent with all other parts of the County's General Plan. Community and subregional plans thus provide a framework for addressing the critical issues and concerns that are unique to a community and are not reflected in the broader policies of the General Plan. The goals and policies of the Mountain Empire Subregional Plan are intended to be more specific than those of the County General Plan as they consider the distinct history, character, and identity of Mountain Empire communities.

The Mountain Empire Subregional Plan contains nine elements: Community Character, Land Use, Housing, Mobility, Public Facilities and Services, Conservation, Recreation, Energy Conservation, and Scenic Highways. Each element contains goals and policies intended to responsibly direct the development of the subregion. The following policies of the Mountain Empire Subregional Plan are applicable to the proposed project:

- **Community Character Goal:** encourage the development of land in a manner that reinforces the unique identity of the Mountain Empire Subregion and its communities.
- **Land Use Element Goal:** provide a land use pattern consistent with the subregional population forecast.
    - **Policy and Recommendation 1:** The landforms of the Subregion are an important environmental resource that should be respected in new development. Hillside grading shall be minimized and designed to blend in with the existing natural contours.
- **Commercial Goal:** provide for the orderly growth of business and professional services and optimize convenience for local and highway-related shopping needs.
    - **Policy and Recommendation 7:** Ensure that all development be planned in a manner that provides adequate public facilities prior to or concurrent with need.
    - **Policy and Recommendation 9:** Parking lots for commercial uses may utilize permeable surfacing materials such as gravel or decomposed granite, in order to minimize surface runoff and maximize groundwater recharge.
- **Public Facilities and Services:** provide the facilities and level of service necessary to satisfy the needs of the subregion.
    - **Policy and Recommendation 1:** Maintain unobstructed access to and along the path of existing power transmission facilities and lines.
    - **Policy and Recommendation 2:** Any proposed grading, improvements, or other encroachments to the substation or transmission rights-of-way must be reviewed by SDG&E.
    - **Policy and Recommendation 3:** Any alteration of drainage patterns affecting the substation or transmission rights-of-way must be reviewed by SDG&E.
    - **Policy and Recommendation 4:** Uses proposed for the property adjacent to substations or transmission line rights-of-ways should be reviewed for possible impacts to the power facilities and vice versa.
- **Conservation Policy – Environmental Resources Goal:** Ensure that there is careful management of environmental resources in the area in order to prevent wasteful exploitation or degradation of those resources and to maintain them for future needs.
    - **Policy and Recommendation 6.1:** All development shall demonstrate a diligent effort to retain as many native oak trees as possible.
    - **Policy and Recommendation 6.3:** Floodways shall be maintained in their natural unless findings can be made that a threat to public safety exists.
    - **Policy and Recommendation 6.4:** The dark night sky is a significant resource for the Subregion and appropriate steps shall be taken to preserve it.
    - **Policy and Recommendation 6.5:** Development shall not adversely affect the habitat of sensitive plant and wildlife species or those areas of significant scenic value.
- **Energy Conservation Goal:** Ensure the conservation of non-renewable energy resources is pursued in a way that is not detrimental to the rural lifestyle.
    - **Policy and Recommendation 8.1:** New development should utilize alternative energy technologies, especially active and passive solar energy systems.

Boulevard Subregional Plan

The *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (Boulevard Subregional Plan) (County of San Diego 2013) provides specific policy guidance for over 55,000 acres, which includes the communities of Boulevard, Live Oak Springs, and Tierra del Sol. The Boulevard Subregional Plan contains five elements: Land Use, Circulation and Mobility, Conservation and Open Space, Safety, and Noise. Each element contains goals and policies intended to responsibly direct the development of the subregion.

Boulevard Land Use Element

The Land Use Element of the Boulevard Subregional Plan guides the application of County-wide land use designations, goals, and policies to reflect the distinguishing characteristics and objectives for the community. These may address objectives, such as a specific mix of uses; priority development locations and projects; needed community facilities; development form and scale; architectural, landscape, and public realm design characteristics; land use compatibility; and similar topics (County of San Diego 2013).

The following policies from the Land Use Element are relevant to the project:

- **Policy LU 1.1.2.** Encourage development to protect the quality and quantity of ground and surface water resources, air quality, dark skies, visual resources, and low ambient noise levels, as well as retain and protect the existing natural and historic features characteristic of the community's landscape and natural environment.
- **Policy LU 1.1.3.** Encourage development to respectfully incorporate existing topography and landforms, watersheds, riparian areas, oaks, and other native vegetation and wildlife, ridgelines, historic and cultural resources, views, and sustainability design factors.
- **Policy LU 1.1.4.** Require commercial and public development along scenic and historic routes to apply designs standards that will blend the development in with the terrain and rustic southwestern nature of the community character, while keeping outdoor lighting to an absolute and well shielded minimum.
- **Policy LU 1.2.3.** Require development, including regional infrastructure and public facilities, to comply and maintain a rural bulk and scale in accordance with Boulevard's community character. Renewable energy projects, such as wind and solar projects, are not "regional infrastructure or public facilities" for purposes of this policy.
- **Policy LU 3.1.1.** Encourage development to preserve dark skies with reduced lighting and increased shielding requirements.
- **Policy LU 3.2.1.** Require development to minimize impacts to the native and riparian habitat.
- **Policy LU 6.1.1** Require commercial, industrial development and large-scale energy generation projects to mitigate adverse impacts to the rural community character, charm, quiet ambiance and lifestyle, or the natural resources, wildlife, and dark skies of Boulevard, if feasible, in accordance with the California Environmental Quality Act.
- **Policy LU 6.1.2.** Encourage commercial, industrial development and large-scale energy generation projects to create and maintain adequate buffers between residential areas and incompatible activities that create heavy traffic, noise, infrasonic vibrations, lighting, odors, dust and unsightly views and impacts to groundwater quality and quantity.

- **Policy LU 6.1.3.** Encourage commercial, industrial development and large-scale energy generation projects to provide buffers from public roads, adjacent and surrounding properties and residences, recreational areas, and trails.

Boulevard Circulation and Mobility Element

The Circulation and Mobility Element of the Boulevard Subregional Plan delineates the roadways, transit corridors, bicycle paths, equestrian paths, and pedestrian trails that supplement and complete the road networks defined by the County-wide Mobility Element. Policies may also address unique community issues, such as neighborhood traffic intrusion, commercial district parking, local public transit, and infrastructure improvements.

The following policies from the Circulation and Mobility Element are relevant to the project:

- **Policy CM 2.1.3.** Encourage the use of permeable pavement and design factors that allow for local recharge of precious rainwater and help prevent runoff and erosion.
- **Policy CM 3.1.1.** Require secondary fire access/egress routes to connect to a public road, when feasible.
- **Policy CM 6.1.1.** Make it a priority to investigate and coordinate with appropriate agencies to restrict potentially illegal airport activities.
- **Policy CM 8.1.1.** Prohibit development and the exportation or sale of groundwater that would adversely impact the ground and surface water resources.
- **Policy CM 8.3.1** Require that the source and quality of water that is imported into the area via tanker trucks or other means, for use on major construction projects, will be verified and validated to avoid contamination of local surface and groundwater resources.
- **Policy CM 8.5.1.** Prohibit development from altering natural drainage patterns.
- **Policy CM 8.5.2.** Require all engineered drainage projects to maximize stormwater filtration on-site to prevent the loss groundwater recharge and unnecessary erosion.
- **Policy CM 8.6.1.** Encourage the use of existing right-of-way when construction of new transmission lines is required, where technically and economically feasible. Additionally, encourage existing right-of-way over new right-of-way alignments for construction of new transmission lines when existing right-of-way is insufficient.

3.1.6.3 Analysis of Project Effects and Determination as to Significance

The County does not have guidance for determining significance to land use and planning beyond using the State CEQA Guidelines, Appendix G checklist questions. Therefore, for the purposes of this EIR, the State CEQA Guidelines, Appendix G, Issue XI are used to assess the project's direct, indirect, and cumulative impacts. A significant impact would result if the project would:

- Physically divide an established community
- 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

Physically Divide an Established Community

Guidelines for the Determination of Significance

A significant impact would result if the project would:

- Physically divide an established community

Analysis

As described in Section 3.1.6.1, Existing Conditions, the project site is located in rural, unincorporated southeast San Diego County, approximately 1 mile south of the community of Boulevard. The project would construct a solar energy generation and storage facility with PV modules, underground collection system, gen-tie line, substation, and battery energy storage containers on 588 acres of land. Large portions of the project site are currently unimproved and are not served by public roads. The project components would be located on vacant portions of the site and would not disrupt use of the existing residential complex off Jewel Valley Road.

Typically, the division of an established community would result from the construction of a physical barrier to neighborhood access or the removal of a means of access, including public roads. As the project is located south of the community of Boulevard, it would not transect or divide the main village residential and commercial areas. As all the public roads connecting the rural residential community to the south of Boulevard would remain intact, this community would not be divided either from each other or from the main town. There are approximately 22 rural single-family residences to the northwest, north, and east of the project site. These residences are connected by Jewel Valley Boulevard, Fisher Road, Fady Lane, McCain Lane, and Tule Jim Lane which surround the project to the north, west, and east. Except for the Empire Ranch residential complex, there are no residences to the south or west of the project. As described in Section 3.1.9, Transportation and Traffic, during the construction and decommissioning phases, there may be construction work or construction-related traffic that could temporarily impede movement of vehicles, transit, bicyclists and/or pedestrians along Jewel Valley Road. Project design features **PDF-TR-1**, **PDF-TR-2**, and **PDF-TR-3** (see Section 3.1.9) would prepare a traffic control plan, direct construction traffic, and notify nearby property owners. All access roads through the project site would be maintained; therefore, no access to the Empire Ranch residences or surrounding parcels would be hindered.

Access to the solar facility would be provided via Jewel Valley Road. The limits of the PV solar development areas would be adjacent to public roads throughout the vicinity of the project site but would not disrupt access to these roads. Although there are no public roads within the Empire Ranch residential complex and the project site, there are several private lanes and tracks on the private property that can be accessed by off-road vehicles. The solar arrays would be fenced but the vehicle access roads connecting the arrays would be unfenced and therefore would provide east-west access for off-road vehicles for maintenance activities during operations and for emergency vehicles. These vehicle access roads would not be open to the public. Jewel Valley Road, an existing 60-foot-wide access road, would connect the north and south solar development areas. The project would not remove any existing publicly used means of access.

The on-site private substation, an approximate 3-acre footprint, and battery energy storage systems (BESS) would be constructed in the northeastern portion of the project site. A gen-tie line consisting of two lines would connect the BESS and substation to the existing SDG&E Boulevard substation. The gen-tie line would be underground except for an overhead section which would cross Tule Jim Lane from the on-site substation. The gen-tie line and associated easement (75 to 105 feet in width) would avoid the residence located on the east side of Tule Jim Lane and south of the Boulevard substation. Construction and operation of the gen-tie line would also be regulated by **PDF-TR-1**, **PDF-TR-2**, and **PDF-TR-3** (see Section 3.1.9)

to minimize disruption of access to any public roads in the vicinity of the project site, including Tule Jim Lane and Eady Lane. As described in Section 2.2, Biological Resources, an unfenced biological open space easement would be granted over 448 acres south of the MUP project site. Granting of this open space would authorize the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. Granting of this biological open space easement would not physically divide an established community as the area is unfenced, private property, and otherwise undeveloped.

In addition, the project would include 17 fenced cultural open space easement areas designed to protect sensitive cultural resources within the MUP project site. Each open space easement area would include a gated entrance, and no development or disturbance would occur. These cultural open space easement areas would not physically divide an established community as they are scattered throughout the project facilities on private property and do not prevent public access or movement.

The project would not physically divide an established community as the construction, operation, and decommissioning phases of the proposed project do not propose any features that would create a physical barrier that would hinder existing community access. Therefore, the project would have **less than significant impacts** with regard to physically dividing an established community.

Conflict with an Applicable Land Use Plan, Policy, or Regulation

Guidelines for the Determination of Significance

This impact analysis considers the following guideline from the State CEQA Guidelines, Appendix G:

- Would the proposed 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?

Analysis

Zoning

The project site is located on parcels currently zoned General Rural (S92). S92 zoning is intended to "provide appropriate controls for land which is: rugged terrain, watershed, dependent on ground water for a water supply, desert, susceptible to fires and erosion, or subject to other environmental constraints." Permitted uses within the S92 zone include family residential, essential fire protection services, horticulture, tree and row crops, and field crops packing and processing. All other uses are subject to some type of limitations depending on the use and the type of permit required (County of San Diego 2014a: Sections 2020–2926). Therefore, discretionary actions from the County would be required to develop the proposed project.

The proposed project would be considered a Major Impact Service and Utility and, under Section 1355 of the Zoning Ordinance, would require approval of a MUP. As noted above, Major Impact Services and Utilities may be conditionally permitted in any zone if it is determined that public interest supersedes the usual limitations placed on land use and transcends the usual restraints of zoning for reasons of necessary location and community-wide interest (County of San Diego 2014a: Section 1350). The MUP process considers the location, size, and operating characteristics of the proposed use and must find that the project would be compatible with adjacent uses with consideration given to the following: harmony in scale; availability of public facilities, services and utilities; effect on desirable neighborhood character; generation of traffic; and suitability of the site for type and intensity of use (Section 7358).

The application for a MUP would be processed according to Section 7350 of the Zoning Ordinance, including making required findings pursuant to Section 7358. In accordance with Section 6954(b)(3), the project would be subject to requirements related to setback, height, visual, and security. The MUP would also be referred to the Boulevard Community Design Review Board, pursuant to Section 7355. The project site is not subject to a Special Area Designation or Special Area Regulations. Therefore, the project would be consistent with the County's Zoning Ordinance.

Climate Action Plan

The *CAP Consistency Checklist and Guidelines for Determining Significance for Climate Change* states that "a proposed project would have a less than significant cumulatively considerable contribution to climate change impacts if it is found to be consistent with the County's Climate Action Plan" (County of San Diego 2024b). As such, a CAP Consistency Review Checklist was prepared for the project, based on the template provided by the County, demonstrating that the project would be consistent with the County's CAP (see Appendix H.3).

Land Use Plans and Policies

The consistency analysis of the applicable land use plans, policies, and regulations considers the holistic impacts associated with implementation of the project. Based on the evaluation of the project's potential consistency with relevant plans and policies, the project would have the potential to result in inconsistencies with applicable policies pertaining to impacts to visual resources and community character.

Table 3.1.6-1 evaluates the project's consistency with policies from the County Board of Supervisors (County of San Diego 2024c), Table 3.1.6-2 evaluates the project's consistency with policies from the San Diego County General Plan (County of San Diego 2011a), and Table 3.1.6-3 evaluates the project's consistency with policies from the Mountain Empire Subregional Plan (County of San Diego 2016) as well as the Boulevard Subregional Plan (County of San Diego 2013). The project would be consistent with the policies identified in these tables.

Table 3.1.6-1. Project Consistency with County Board of Supervisors Policies

Policy	Project Consistency with Policy
I-18. Right-of-Way Dedication and Public Improvement Requirements in Connection with Major and Minor Use Permits Where application is made pursuant to The Zoning Ordinance for a Major or Minor Use Permit and it is found that road improvements, drainage, sewage, fire protection or other public facilities and improvements (including the land, easements and rights-of-way) are necessary to insure that the establishment or maintenance of the requested use will not be materially detrimental to the public health, safety or welfare or to the property or improvements in the vicinity and zone in which the subject property is located such use permit shall be issued only upon conditions that provision be made for such improvements and facilities including the land, easements and rights-of-way.	Consistent: The project would be unoccupied and would not require improvements to sewer and potable water systems. Improvements to roadways required to facilitate construction and operation of the project would be constructed pursuant to County standards for the intended use of the roadways. Additionally, a fire protection plan (FPP) (SWCA 2024b; Appendix L) has been prepared for the project to address any fire suppression design measures and emergency access requirements for the project. Nonpotable water would be supplied by Jacumba Community Services District (Highland Center Well and/or Park Well) or the Padre Dam Municipal Water Company.

Policy	Project Consistency with Policy
I-49. Distribution of Notification of Land Use Hearings 1. Notices of permit applications shall be posted on site in a manner set forth by the Director of Planning & Development Services. The notices and posting guidelines will be provided to each applicant by Planning & Development Services at the time of project submittal. 2. Residents of all apartment buildings and mobile home parks within 300 feet of the project site. Such notice shall be by posting in a conspicuous area approved by the management of the apartment building or mobile home park. The posted notice shall include information as to the nature and location of the project and a telephone number where interested parties may call for additional information. This notice shall be posted by the applicant within ten days of payment of processing fees. In the event that the posting of the notice is not allowed by the owner or management of any premises, the applicant shall notify Planning & Development Services within ten days.	**Consistent.** All noticing for project would be conducted in compliance with County regulations and guidelines. Additionally, residences within an expanded 3,200-foot boundary of the project were notified of the project during the initial MUP application process.
I-60. Prohibition of Grading Until Annexation or Other Discretionary Actions are Completed 1. A grading permit for any project requiring discretionary approvals shall not be issued until all discretionary permits or approvals that can be determined as necessary in light of the project detail shown on the plan or permit application or known or reasonably inferred by the County Official, including those by other governmental agencies, such as Special Districts, or the Coastal Commission have been obtained. Where the Board of Supervisors, the Planning Commission, Director of Planning and Development Services (PDS) or Zoning Administrator approval is conditional on discretionary actions by other governmental agencies, the resolution should note which actions, if any, are prerequisite to the issuance of a grading permit. 2. PDS will inform the applicant after an initial review of a project application, of all County discretionary permits or approvals which will be necessary for the project and will ensure that the requirement for obtaining such permits or approvals is incorporated in any associated conditional approval. The applicant should be encouraged to seek relating County discretionary approvals by concurrent processing of appropriate applications.	**Consistent.** Grading would be performed; therefore, grading permits from the County would be required for development of the project. The project would also obtain all necessary and required discretionary permits and approvals for the project before a grading permit is issued.
I-73. Hillside Development Policy 1. Development of building sites in hillside areas be planned and constructed in such a manner as to preserve, enhance or improve the physical features of the area consistent with providing building sites while at the same time optimizing the aesthetic quality of the final product. The design process set forth below shall be used as a guide to achieve the best possible hillside development. The guidelines set forth in this policy are purposely expressed in general terms to allow for flexibility in their application. It is recognized that at times difficulties may be encountered in interpreting some of these guidelines, but it is anticipated that appropriate decisions will be reached by the persons involved in	**Consistent.** Overall development would respect the existing topography and contours within the project boundary and does not propose “hillside subdivision” development, as described in this policy. The project would be required to obtain a grading permit prior to construction; therefore, the project would be required to comply with the hillside grading requirements of this policy should portions of the project be subject to a hillside grading permit.

Policy	Project Consistency with Policy
the overall spirit and intent of this policy is respected. This policy is not intended to inhibit or restrict development, but rather to result in the best potential use of any site. This policy shall not apply to projects for which development applications have been filed, and fees paid, to the Department of Environmental Health or Planning & Development Services prior to the effective date of this policy. Where applicants are required to file first with the Department of Environmental Health, the applicant shall submit his full application to Planning & Development Services within 1 year of the date the application was first filed with the Department of Environmental Health.	
I-74. Enforcement of Permitted and Non-Permitted Grading on Private Property B. Problem Grading Performed Under Permit: Permits issued for grading shall include and provide the County with: o Permits to enter property for correction if necessary; o Timing control over work done by permittee; o Security sufficient to complete work guaranteed by instrument of credit or cash; o Proof of ownership or owner's permission to grade; and o Administrative tools used for control of non-permitted grading shall be used to secure compliance with grading permits. This shall include withholding of building permits if necessary.	**Consistent.** Grading would be performed; therefore, grading permits from the County would be required for development of the project. The project would also obtain all necessary and required discretionary permits and approvals for the project before a grading permit is issued.
I-92. Underground Utilities – Waiver Requests This policy provides criteria for reviewing and approving waivers of the code requirement to underground existing and new utilities for new subdivisions and centerline projects as authorized by Sections 81.308, 81.316, 81.614, and 51.312 of the San Diego County Code of Regulatory Ordinances.	**Consistent.** The project is exempt from this policy as the transmission line is in excess of 34.5 volts.
I-111. Discretionary Permits Adjacent to the International Border The policy is applicable for discretionary permits that are located within 150 feet from the international Border and provides for DHS notification of such projects. The ordinance provides the opportunity for DHS to purchase rights or fee title to properties within 150 feet of the border in order to keep an open corridor to facilitate Border patrol movement. The policy does not apply to actions which do not propose building pads, structures or fencing within 150 feet of the border.	**Consistent.** The project includes open space easement lands for the protection of biological resources adjacent to the border. These lands would not be developed or fenced. The following activities would be prohibited: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space.

Table 3.1.6-2. Project Consistency with General Plan Policies

Policy	Project Consistency with Policy
Land Use Element (County of San Diego 2011b)	
LU-2.8: Mitigation of Development Impacts. Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.	**Consistent**. Implementation of mitigation measures discussed would reduce project-generated impacts to the extent feasible. As described in Section 3.1.1, Air Quality, the proposed project would be consistent with San Diego Air Pollution Control District (SDAPCD) guidelines and regulations and would not cause excessive amounts of odors, dust, or toxic air contaminants during construction. As described in Section 2.5, Noise, project noise levels would comply with the County's Noise Ordinance.
LU-4.6: Planning for Adequate Energy Facilities. Participate in the planning of regional energy infrastructure with applicable utility providers to ensure plans are consistent with the County's General Plan and Community Plans and minimize adverse impacts to the unincorporated County.	**Not Applicable.** The project would be consistent with the County General Plan and community plans, and would minimize impacts to unincorporated San Diego County through various mitigation measures, as discussed throughout this EIR. The project would not be required to participate in the planning of regional energy infrastructure; however, the project would add approximately 100 megawatts (MW) of renewable energy that would connect to the SDG&E power grid and ultimately be distributed to the California electrical grid.
LU-5.3: Rural Land Preservation. Ensure the preservation of existing open space and rural areas (e.g., forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) when permitting development under the Rural and Semi-Rural Land Use Designations	**Consistent.** The project site includes 15existing open space easement areas which would be fenced and protected from development. In addition, the project includes a new 448-acre open space easement area to provide protection in perpetuity for natural resources and maintain wildlife movement at a landscape level that would be granted to the County or other approved conservation entity in perpetuity. The project site does not contain any County Resource Protection Ordinance (RPO) wetlands. The project site includes 0.81 acre of California State Water Resources Control Board and Colorado River Basin Regional Water Quality Control Board (RWQCB) waters of the State, 0.01 acre of wetland waters of the State, and 2.35 acres of California Department of Fish and Wildlife (CDFW) jurisdictional resources, impacts to which will be permitted accordingly. However, the project also has several wetland habitat areas on-site that would be avoided. See Section 2.2, Biological Resources, for further information regarding open space and rural areas. Groundwater recharge on the project site would not be significantly altered, as the project site would consist of primarily permeable surfaces to allow for groundwater recharge similar to that under current conditions. See Section 2.4, Hydrology and Water Quality, for further information regarding groundwater recharge.
LU-5.5: Projects that Impede Non-Motorized Travel. Ensure that development projects and road improvements do not impede bicycle and pedestrian access. Where impacts to existing planned routes would occur, ensure that impacts are mitigated and acceptable alternative routes are implemented.	**Consistent.** The project does not propose any features or improvements that would impede bicycle and pedestrian access. There are currently no existing bicycle or pedestrian access points to the project site or on surrounding access roads and Jewel Valley Road. Primary access to the project site would be provided via an improved access road from Jewel Valley Road.

Policy	Project Consistency with Policy
LU-6.1: Environmental Sustainability. Require the protection of intact or sensitive natural resources in support of the long-term sustainability of the natural environment.	**Consistent.** The project would be consistent with this policy. The project site contains sensitive biological habitats with the potential for use by sensitive and/or protected species, although no threatened or endangered species have been identified on the project site. All project impacts to sensitive natural resources (biological and cultural resources) would be mitigated to below a level of significance. Refer also to the biological resources report (SWCA 2024c; Appendix D.1) and the cultural resources survey and inventory report (SWCA 2024d; Appendix E.1). Mitigation for habitat impacts would be located in areas that contribute significant resources to an integrated preserve system. The 488-acre open space easement area is proposed as part of the project and would promote resource protection in perpetuity.
LU-6.5: Sustainable Stormwater Management. Ensure that development minimizes the use of impervious surfaces and incorporates other Low Impact Development techniques as well as a combination of site design, source control, and stormwater best management practices, where applicable and consistent with the County's LID Handbook.	**Consistent.** The project would be consistent with this policy. Solar development has been determined to be a non-priority development project by the County and the local RWQCB; therefore, the project is not subject to hydromodification requirements and major stormwater management program requirements. The use of impermeable surfaces would be minimized to the extent practicable; however, concrete foundations for the substation components and the energy storage facility would include impervious surfaces and would effectively alter existing drainage patterns and would potentially result in an increase in erosion and siltation. The project would include stormwater detention basins and facilities in accordance with the County's hydraulic design manual (County of San Diego 2014b). Preparation, and implementation of a stormwater pollution prevention plan (SWPPP) would require the Applicant to incorporate low-impact development features into the project design to ensure that existing drainage patterns are not significantly altered. The project would produce approximately 10.49 acres of impervious area. The drainage report determined that the additional impervious area represents 0.0068% of the watershed that is contributing to the drainage passing through the proposed site (Michael Baker International 2024; Appendix G.1). This increase in impervious area constitutes a small enough area that would not change the overall drainage pattern. See Section 2.4, Hydrology and Water Quality, for further information regarding stormwater management.
LU-6.6: Integration of Natural Features into the Project Design. Require incorporation of natural features (including mature oaks, indigenous trees and rock formations) into proposed development and require avoidance of sensitive environmental resources.	**Consistent.** Native vegetation communities within the project site include granitic northern mixed chaparral, redshank chaparral, granitic chamise chaparral, montane buckwheat scrub, field/pasture, big sagebrush scrub, open coast live oak woodland, nonnative grassland, southern riparian scrub, freshwater, coast live oak woodland, tamarisk scrub, freshwater seep, and alkali marsh. Approximately 24.4 acres within the project site would be protected under open space easements. In addition, approximately 448 acres would be dedicated as an open space easement. The project is designed to not require removal of existing rock outcroppings. Rock outcroppings present on the property occur within the area to be included in the open space easement.

Policy	Project Consistency with Policy
LU-6.9: Development Conformance with Topography. Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of the site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.	**Consistent.** Grading required for the construction of the project would be consistent with the requirements of the County Code of Regulatory Ordinances, Title 8, Division 7 (Grading Ordinance). The project does not propose major grading that would create major landform modifications. During construction, the implementation of required erosion control plans, stormwater management plans, and best management practices (BMPs) would minimize potential erosion and sedimentation impacts to a less-than-significant level. Blasting activities may be required to facilitate the siting of arrays, the gen-tie, and other equipment foundations. The necessity and extent of blasting would not be known until surface clearing is completed. Blasting would primarily be used for the installation of equipment foundation and would not create major landform modifications. It is preliminarily estimated that approximately 5,000 cubic yards of rock would be blasted during the early stages of excavation and mass grading for Phase I and Phase II. Blasting would occur at 2- to 3-day intervals, with no more than one blast per day. Further, all blast planning shall be done by a San Diego County Sheriff approved blaster, with the appropriate San Diego County Sheriff blasting permits, and all other applicable local, state, and federal permits, licenses, and bonding. The blasting contractor or owner shall conduct all notifications, inspections, monitoring, major or minor blasting requirements planning, with seismograph reports as necessary. The drainage study (Michael Baker International 2024; Appendix G.1) determined that the project would produce approximately 10.49 acres of impervious area. However, as discussed in Section 2.4, Hydrology and Water Quality, the proposed drainage improvements would adequately convey stormwater flows and would maintain general topography to the extent feasible.
LU-6.10: Protection from Hazards. Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards	**Consistent.** Based on a site visit and regulatory database search, the project site has not been subject to a release of hazardous substances that would create a significant hazard to the public or environment. The project site is not included in any of the following lists or databases: the State of California Hazardous Waste and Substances sites list compiled pursuant to Government Code Section 65962.5, the San Diego County Hazardous Materials Establishment database, the San Diego County Department of Environmental Health Site Assessment and Mitigation Case Listing, the Department of Toxic Substances Control Site Mitigation and Brownfields Reuse Program Database (CalSites EnviroStor Database), the Resource Conservation and Recovery Information System listing, the U.S. Environmental Protection Agency's (EPA's) Superfund Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, or the EPA's National Priorities List (Michael Baker International 2023; Appendix I). Proposed development of the site would not interfere with implementation of emergency responses in the area. With the implementation of the site-specific FPP (SWCA 2024b; Appendix L), the project would be compliant with applicable fire codes and would reduce potential impacts associated with wildfire hazards. In addition, compliance with the California Building Code would ensure that the development is protected from risks associated with geologic hazards. Equipment on the site may be ignition sources during operation and maintenance; these include transformers, capacitors, electric transmission lines, substations, vehicles, and gas- or electric-powered hand tools. Inverters, batteries, and solar panels represent potential ignition sources that are considered to have low likelihood of causing fires. The recommendations and

Policy	Project Consistency with Policy
	measures included in the FPP incorporate considerations for electrical components.
LU-8.2: Groundwater Resources. Require development to identify adequate groundwater resources in groundwater dependent areas as follows: • In areas dependent on currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions. • Encourage programs to alleviate overdraft conditions in Boulevard. • In areas without current overdraft conditions, prohibit new groundwater-dependent development where overdraft conditions are foreseeable.	**Consistent.** The proposed project has an estimated annual water demand of 0.81 acre-feet per year for panel washing during operation (INTERA Incorporated 2025a; Appendix G.4). The project would also prepare a groundwater monitoring and mitigation plan to ensure that pumping does not significantly impact existing well users and groundwater-dependent habitat. As discussed in the groundwater resources investigation report (INTERA Incorporated 2025b; Appendix G.2), the Jacumba Community Services District would have sufficient water supplies to serve the project and reasonably foreseeable future development. The project would not significantly draw down the groundwater table.
LU-8.3: Groundwater Dependent Habitat. Discourage development that would significantly draw down the groundwater table to the detriment of groundwater-dependent habitat, except in the Borrego Valley.	**Consistent.** The project would not significantly draw down the groundwater table. Project operation would require approximately 0.81 acre-feet of water per year for panel washing.
LU-10.2: Development—Environmental Resource Relationship. Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character and avoid sensitive or intact environmental resources and hazard areas.	**Consistent.** While the project site contains native habitat, no endangered species were identified on the project site. No highly sensitive or sensitive habitat lands as identified by the RPO were identified on-site that warrant avoidance measures. The project includes a large on-site proposed open space area that would mitigate all impacts to natural habitat to a less-than-significant level. The project site does not contain any unique natural features or hazard areas that require avoidance. The open space easement would maintain a rural character for the most visible proportion of the property.
LU-12.1: Concurrency of Infrastructure and Services with Development. Require the provision of infrastructure, facilities, and service needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.	**Consistent.** The project is not expected to significantly alter the demand for schools, parks, or police facilities. With regard to fire protection, the FPP prepared for the project (SWCA 2024b; Appendix L) determined that there is not a need for new or altered fire protection facilities. Following the recommendations in the FPP would ensure that adequate fire protection facilities are provided concurrent with development of the project. Such measures and recommendations for fire safety and access are listed and discussed in Section 2.7, Wildfire.
LU-12.2: Maintenance of Adequate Services. Require development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. Provide improvements for the Mobility Element roads in accordance with the Mobility Element Network Appendix matrices, which may result in ultimate buildout conditions that achieve an improved Level of Service (LOS) but do not achieve a LOS D or better.	**Consistent.** Primary access to the project site would be provided via an improved access road—Jewel Valley Road—with emergency access provided by Tule Jim Lane. These roads are wide enough to accommodate two-way traffic of emergency vehicles and connect to Old Highway 80 in the community of Boulevard. All entrance gates would feature a Knox Box to allow ease of access for emergency service providers. The project would include dual-purpose internal fire response access and service access roads. The perimeter internal access within the fenced solar facility would be constructed to a minimum improved width of 24 feet. The interior on-site vehicle access roads would be constructed to a minimum improved width of 20 feet. According to the Mountain Empire Mobility Element Network Map, Old Highway 80 is classified as a Mobility Element Road and the project does not propose any alterations to Old Highway 80. Therefore, improvements of these Mobility Element roads are not required. Additionally, the project would contribute funds to fire and emergency medical services to improve response capabilities in the area (see Section 2.7, Wildfire).

Policy	Project Consistency with Policy
LU-13.2: Commitment of Water Supply. Require new development to identify adequate water resources, in accordance with state law, to support the development prior to approval	**Consistent.** The project would use water provided by the Jacumba Community Services District (Highland Center Well and/or Park Well). The Padre Dam Municipal Water Company would also be a viable water source. As discussed in the groundwater resources investigation report (INTERA Incorporated 2024; Appendix G-2), the Jacumba Community Services District would have sufficient water supplies to serve the project and reasonably foreseeable future development. See Section 2.4, Hydrology and Water Quality, for further information.
LU 18.1: Compatibility of Civic Uses with Community Character. Locate and design Civic uses and services to assure compatibility with the character of the community and adjoining uses, which pose limited adverse effects. Such uses may include libraries, meeting centers, and small swap meets, farmers markets, or other community gatherings.	**Not Applicable.** The project would not impact such uses as mentioned in Policy LU-18.1. Although the character of the greater Boulevard community has been rural in the past, recent developments have resulted in a variable physical setting that includes both rural and renewable energy elements. The character of the community is evolving into a mix of rural and renewable energy uses with recent developments, including the Tule Wind project, SDG&E Sunrise Powerlink, Boulevard substation, and other renewable energy projects.
Mobility Element (County of San Diego 2011c)	
M-2.3: Environmentally Sensitive Road Design. Locate and design public and private roads to minimize impacts to significant biological and other environmental and visual resources. Avoid road alignments through floodplains to minimize impacts on floodplain habitats and limit the need for constructing flood control measures. Design new roads to maintain wildlife movement and retrofit existing roads for that purpose. Utilize fencing to reduce road kill and to direct animals to under crossings.	**Consistent.** The project would include construction of private permanent access roads within the project boundary to allow for continuity between transmission poles, switchyard, and the collector substation, but would not create any new public roadways. The project is located within Federal Emergency Management Agency (FEMA) Zone D, which indicates that flood risk is possible but undetermined because the agency has not conducted a flood hazard analysis. However, as discussed in Section 2.4, Hydrology and Water Quality, the on-site drainage has been designed to approximate preconstruction drainage patterns to the extent feasible, and the project would not impede or redirect flows.
M-2.5: Minimize Excess Water Runoff. Minimize Excess Water Runoff. Require road improvements to be designed and constructed to accommodate stormwater in a manner that minimizes demands upon engineered stormwater systems and to maximize the use of natural detention and infiltration techniques to mitigate environmental impacts.	**Consistent.** Access roads constructed throughout the project would be located away from steep slopes and erodible soils to the extent practicable and have been designed to maintain current surface water runoff patterns to prevent erosion. During construction of the project, implementation of required erosion control plans, stormwater management plans, and BMPs would minimize potential erosion and sedimentation impacts.
M-3.3: Multiple Ingress and Egress. Require development to provide multiple ingress/egress routes in conformance with State law, and local regulations.	**Consistent.** The project would have one primary access road off Jewel Valley Road and an emergency access road off Tule Jim Lane. All interior roads would be built to fire department standards.
M-4.4: Accommodate Emergency Vehicles. Design and construct public and private roads to allow for necessary access for appropriately sized fire apparatus and emergency vehicles while accommodating outgoing vehicles from evacuating residents.	**Consistent.** The project would include dual-purpose internal fire response access and service roads, and all access roads would be constructed to County Fire Code standards. The perimeter road and array-connecting roads would be 24 feet on a 28-foot graded area. Other interior roads would be 20 feet wide on a 24-foot graded area.
M-4.5: Context Sensitive Road Design. Design and construct roads that are compatible with the local terrain and the uses, scale and pattern of the surrounding development. Provide wildlife crossings in road design and construction where it would minimize impacts in wildlife corridors.	**Consistent.** The project would be consistent with this policy. Refer to the Policy M-2.3 consistency analysis above.

Policy	Project Consistency with Policy
M-12.4: Land Dedication for Trails. Require development projects to dedicate and improve trails or pathways where the development will occur on land planned for trail or pathway segments shown on the Regional Trails Plan or Community Trails Master Plan.	**Consistent.** The Community Trails Master Plan proposes a community trail and community pathway along Jewel Valley Road, which is adjacent to and intersects the project site (County of San Diego 2020b). The project does not include construction of this trail. The proposed community plan trail and pathway may be temporarily impacted during construction, assuming the trail is established by then; however, impacts would be temporary and inconsequential, if they occur at all. The community pathway is entirely on County land and would not be affected by operation of the project.
Conservation and Open Space Element (County of San Diego 2011d)	
COS-1.1: Coordinated Preserve System. Identify and develop a coordinated biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.	**Not Applicable.** This policy requires action by the County and does not imply action by the project developer.
COS-2.1: Protection, Restoration, and Enhancement. Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.	**Consistent.** Development of the project would result in impacts to sensitive vegetation communities. Development of the project would result in potentially significant short-term and long-term direct and/or indirect impacts to special-status plants, special-status wildlife species, and wildlife habitat, as well as short-term direct impacts to wildlife movement. Mitigation would include preservation of similar habitat types; construction monitoring, flagging, and other BMPs; nesting bird surveys; avian and bat monitoring; fire protection; access control; and federal and state agency permits. All significant impacts would be reduced to less than significant with implementation of mitigation measures**.**
COS-2.2: Habitat Protection through Site Design. Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.	**Consistent.** The project is designed to avoid biologically sensitive areas. Approximately 24.4 acres within the project site would be protected under open space easements. In addition, approximately 448 acres would be dedicated as an open space preserve.
COS-3.1: Wetland Protection. Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.	**Consistent.** Short-term direct impacts to special-status upland vegetation communities would primarily result from construction activities. Clearing, trampling, or grading of special-status vegetation communities beyond the limits of work could occur without implementation of avoidance and mitigation measures. Long-term direct impacts to special-status upland vegetation communities could occur as a result of project implementation. However, implementation of mitigation measures M-BI-1 through M-BI-11 would reduce potentially significant impacts to less than significant after mitigation.
COS-3.2: Minimize Impacts of Development. Require development projects to: • Mitigate any unavoidable losses of wetlands, including habitat functions and values; and • Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging, adding fill material, exposure to pollutants such as nutrients, hydromodification, land and vegetation clearing, and the introduction of invasive species.	**Consistent.** The project is designed to avoid aquatic resources. However, the project would result in permanent and temporary impacts of 0.81 acre (16,320 linear feet) of waters of the State, 0.01 acre (25 linear feet) of wetland waters of the State, and 2.35 acres (16,505 linear feet) of CDFW Jurisdictional Resources. County RPO wetlands do not occur within the project site boundaries but one RPO wetland was observed within 50 feet of the site and would be flagged for avoidance. Permits required include a Waste Discharge Requirements permit from the Colorado River RWQCB under the Porter-Cologne Water Quality Control Act and submittal of a CDFW Lake and Streambed Alteration Agreement notification. Compensatory mitigation would be an expected requirement from the applicable agencies.

Policy	Project Consistency with Policy
COS-4.1: Water Conservation. Require development to reduce waste of potable water through use of efficient technologies and conservation efforts that minimize the County's dependence on imported water and conserve groundwater resources.	**Consistent.** Operation of the project would not require potable water. Water would be required for panel washing a few times a year and would be obtained from the Jacumba Community Services District or the Padre Dam Municipal Water Company.
COS-4.3: Stormwater Filtration. Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces. This policy shall not apply in areas with high groundwater, where raising the water table could cause septic system failures, moisture damage to building slabs, and/or other problems.	**Consistent.** Impervious surfaces would be limited to concrete pads for the substation and battery facilities. The remainder of the site would be pervious surfaces to maximize natural drainage patterns. Roads would be of decomposed granite and semipermeable. Existing contours in the site topography would be softened to support installation of the PV panels and reduce the potential for rill erosion, without diverting flow, as compared to pre-development conditions.
COS-5.2: Impervious Surfaces. Require development to minimize the use of directly connected impervious surfaces and to retain stormwater run-off caused from the development footprint at or near the site of generation.	**Consistent.** Impervious surfaces would be limited to battery storage area, substation area, and inverter pads. The remainder of the site would be pervious surfaces to maximize natural drainage patterns. Roads would consist of decomposed granite and semipermeable. The project would incorporate the construction of detention basins for the purposes of infiltrating runoff. A series of stormwater piping is proposed in the north and northeastern portions of the project site that would include but not be limited to storage piping, conveyance piping, headwalls, cleanouts, and riprap. The detention basins and storage piping would provide stormwater detention to limit water flowing from the site due to new impervious surface resulting from the BESS facilities and substation.
COS-5.3: Downslope Protection. Require development to be appropriately sited and to incorporate measures to retain natural flow regimes, thereby protecting downslope areas from erosion, capturing runoff to adequately allow for filtration and/or infiltration, and protecting downstream biological resources.	**Consistent.** The project site is hydrologically connected to the Salton Sea because it is within its watershed. However, due to the arid climate and the site's distance from the Salton Sea (approximately 45 miles), stormwater runoff from the project site is unlikely to reach these features before infiltrating into the ground or evaporating. The project would incorporate the construction of detention basins for the purposes of infiltrating runoff. A series of stormwater piping is proposed in the north and northeastern portions of the project site that would include but not be limited to storage piping, conveyance piping, headwalls, cleanouts, and riprap. The detention basins and storage piping would provide stormwater detention to limit water flowing from the site due to new impervious surface resulting from the BESS facilities and substation.
COS-5.5: Impacts of Development to Water Quality. Require development projects to avoid impacts to the water quality in local reservoirs, groundwater resources, and recharge areas, watersheds, and other local water sources.	**Consistent.** The project would implement a SWPPP during construction. The SWPPP would include the proposed project risk determination, identification of site runoff sampling locations, discussion of potential site pollutants, minimum BMPs, construction site monitoring plan and the water pollution control drawings. The project's stormwater quality management plan (SWQMP) includes details of construction and postconstruction BMPs to address potential and anticipated water quality impacts. By implementing the pollution control measures to be included in the SWPPP and SWQMP, as well as the appropriate monitoring program included there within, the proposed project would limit the possibility of contributing contaminants that might exceed local water quality objectives or contribute to the degradation of beneficial uses. Groundwater recharge on the project site would not be significantly altered, as the project site would consist of primarily permeable surfaces to allow for groundwater recharge similar to that under current conditions. See Section 2.4, Hydrology and Water Quality, for further information regarding groundwater recharge.

Policy	Project Consistency with Policy
COS-7.1: Archaeological Protection. Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources. **COS-7.2: Open Space Easements.** Require development to avoid archeological resources whenever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources. **COS-7.3: Archaeological Collections.** Require the appropriate treatment and preservation of archaeological collections in a culturally appropriate manner. **COS-7.4: Consultation with Affected Communities.** Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources **COS-7.5: Treatment of Human Remains.** Require human remains be treated with the utmost dignity and respect and that the disposition and handling of human remains will be done in consultation with the Most Likely Descendant (MLD) and under the requirements of Federal, State and County Regulations.	**Consistent.** SWCA completed a cultural resources survey and report that identified approximately 35 archaeological sites within the project site that could be disturbed or damaged by construction and operation of the project. The project has been designed to avoid or mitigate impacts to all 35 sites. The project was redesigned to preserve 21 sites in place with dedicated open space easements. The remaining 15 sites would require archeological and tribal monitoring during construction. If cultural resources are identified during construction, the Project Archaeologist would contact the County Archaeologist and, if necessary, implement a Research Design and Data Recovery Program to preserve unique cultural resources. Tribal outreach under Assembly Bill 52 was initiated in February 2023 and is ongoing. Four tribes (Campo, Jamul, San Pasqual, and Viejas) have requested formal government-to-government consultation. The County has met with Campo, Jamul, and San Pasqual. To date, no tribal cultural resources have been identified. A Cultural Resources Treatment Agreement and Preservation Plan shall be developed between the Applicant and the consulting Native American Tribes. This agreement would ensure appropriate treatment of cultural resources.
COS-9.1: Preservation. Require the salvage and preservation of unique paleontological resources when exposed to the elements during excavation or grading activities or other development processes.	**Consistent.** Based on the results of the Preliminary Geotechnical Site Evaluation Report (Bruin Geotechnical Services, Inc. 2022; Appendix F), ground-disturbing activities associated with the project are expected to remain in deposits with no or low paleontological sensitivity and are unlikely to extend deep enough to reach deposits with high paleontological sensitivity. Additionally, mitigation measure M-GE-1 would require that in the event paleontological resources are encountered, work in the immediate area of the discovery shall be halted, and a professional paleontologist who meets the qualifications established by the County, in consultation with the County, should be retained to assess the discovery and make appropriate recommendations regarding handling the resources and subsequent paleontological work.
COS-9.2: Impacts of Development. Require development to minimize impacts to unique geological features from human related destruction, damage, or loss.	**Consistent.** The project is designed to minimize impacts to significant existing rock outcroppings. Rock outcroppings present on the property occur within the area to be included in the Open Space Preserve.
COS-11.1: Protection of Scenic Resources. Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.	**Consistent.** The solar facility would be visible from portions of I-8 and Old Highway 80. The project would substantially alter the existing quality of views available to highway motorists and passengers because racks of solar panels would be visible from I-8 for brief periods and would be aligned along Old Highway 80. The solar panel's wide distribution across relatively flat and open desert terrain would reduce existing visual quality. However, neither the project site nor the surrounding area has been designated by local, state or federal agencies or organizations as containing or being of "significant" scenic value. Since the project area has not been designated or described by agencies as containing "significant" scenic value, the project would not conflict with this policy. Further, the project has been designed to minimize impacts to the scenic value of the area to the extent practicable. Despite I-8's and Old Highway 80's inclusion in the County's scenic highway system, there are no current local regulations governing development of lands along these roads. For example, the existing energy infrastructure including the Boulevard substation, Boulevard battery storage project, the approved Rugged Solar and Boulder Brush projects,

Policy	Project Consistency with Policy
	transmission lines, and the East County substation 138-kilovolt (kV) line is currently visible from I-8 and Old Highway 80. Implementation and operation of the project would not prevent the County from continuing to establish and designate scenic highways and would not inhibit the County from establishing regulations and/or development standards geared towards the protection and enhancement of scenic highways. Due to the inclusion of existing energy infrastructure in the I-8 and Old Highway 80 viewsheds, the brief duration of views to the project site from I-8, screening of solar panels from view of Old Highway 80 motorists and because the project does not inhibit the County from establishing regulations and/or development standards geared towards the protection and enhancement of scenic highways, the project would not be inconsistent with this policy.
COS-11.2: Scenic Resource Connections. Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.	**Consistent.** The proposed project would be located in an area where existing renewable energy and infrastructure are already located and/or are approved to be located. Refer to the response for COS-11.1 for discussion of scenic highways.
COS-11.3: Development Siting and Design. Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following: • Creative site planning • Integration of natural features into the project • Appropriate scale, materials, and design to complement the surrounding natural landscape • Minimal disturbance of topography • Clustering of development so as to preserve a balance of open space vistas, natural features, and community character. • Creation of contiguous open space networks	**Consistent.** Visual impacts associated with the project would be minimized through site design. As part of the project design, additional permanent access roads would be constructed to facilitate construction of the project. These roadways have been designed to conform with the topography to the greatest extent possible, and grading required to construct these roadways would be minimized.
COS-11.4: Collaboration with Agencies and Jurisdictions. Coordinate with adjacent federal and State agencies, local jurisdictions, and tribal governments to protect scenic resources and corridors that extend beyond the County's land use authority, but are important to the welfare of County residents.	**Consistent.** The project developer is in direct coordination with federal and state agencies, County departments, and local tribal governments as part of the CEQA process.
COS-11.5: Collaboration with Private and Public Agencies. Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, whenever feasible. Require the design of public improvements within visually sensitive areas to blend into the landscape.	**Consistent.** The project is coordinating with SDG&E on the interconnection with the Boulevard substation and all other affected interested private and public agencies. Although the project vicinity has been historically of rural character, there has been a recent increase in renewable energy development in the region that has changed the character to a mix of rural and solar/wind generation facilities. The project are proposed in an area that is in the vicinity of other energy facilities, including the Boulevard substation, Boulevard battery storage project, the approved Rugged Solar and Boulder Brush projects, transmission lines, and the East County substation 138-kV line is currently visible from I-8 and Old Highway 80.
COS-11.7: Underground Utilities. Require new development to place utilities underground and encourage "undergrounding" in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.	**Consistent.** The project includes one gen-tie line from the on-site substation, along Tule Jim Lane, to the Boulevard substation. The majority of the gen-tie line would be underground, with the exception of the Tule Jim Lane crossing.

Policy	Project Consistency with Policy
COS 12.2: Development Location on Ridges. Require development to preserve the physical features by being located down and away from ridgelines so that structures are not silhouetted against the sky.	**Consistent.** A ridgeline is the plateau or maximum elevation that extends along the top of Steep Slope Lands. A ridgeline may increase or decrease in elevation as it extends along the top of Steep Slope Lands. The arrays of PV panels would generally follow the existing topography.
COS-13.1: Restrict Light and Glare. Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.	**Consistent.** All lighting would have bulbs that do not exceed 100 watts or equivalent, and all lights would be shielded, directed downward, and would comply with the County of San Diego Light Pollution Code, also known as the Dark Sky Ordinance. Additionally, lighting for the project would be designed in accordance with the San Diego County Zoning Ordinance, Performance Standards Section 6320, 6322, and 6324, which guide performance standards for glare, and controls excessive or unnecessary outdoor light emissions.
COS-13.3: Collaboration to Retain Night Skies. Coordinate with adjacent federal and State agencies, local jurisdictions, and tribal governments to retain the quality of night skies by minimizing light pollution.	**Consistent.** See the above consistency analysis for Policy COS-13.1. In addition, coordination with adjacent agencies and tribal governments would occur as necessary.
COS-14.4: Sustainable Technology and Projects. Require technologies and projects that contribute to the conservation of resources in a sustainable manner, that are compatible with community character, and that increase the self-sufficiency of individual communities, residents, and businesses.	**Consistent.** The project would provide infrastructure for a renewable energy project in proximity to existing transmission infrastructure and existing renewable energy. The project would develop approximately 100 MW of renewable solar energy that can offset the need for additional energy production from fossil fuels, assist the state in meeting its air quality goals, and reduce GHG emissions in conformance with Assembly Bill 32 and Senate Bill 32.
COS-14.7: Alternative Energy Sources for Development Projects. Encourage development projects that use energy recovery, photovoltaic, and wind energy.	**Consistent.** The project would produce solar power eligible for the state's Renewable Portfolio Standard that would be used by existing or future development.
COS-14.8: Minimize Air Pollution. Minimize land use conflicts that expose people to significant amounts of air pollutants.	**Consistent.** Potential air quality impacts associated with ground-disturbing activities during construction would be short-term. The project would result in negligible operational emissions and the project includes construction of a renewable energy resource that would result in an overall net reduction in air emissions when compared to energy generated from a non-renewable energy source.
COS-14.9: Significant Producers of Air Pollutants. Require projects that generate potentially significant levels of air pollutants and/or GHGs such as quarries, landfill operations, or large land development projects to incorporate renewable energy, and the best available control technologies and practices into the project design.	**Consistent.** Potential air quality impacts associated with ground-disturbing activities during construction would be short-term. The project is a renewable energy project and therefore by its nature would comply with this policy.
COS-14.10: Low-Emission Construction Vehicles and Equipment. Require County contractors and encourage other developers to use low-emission construction vehicles and equipment to improve air quality and reduce GHG emissions.	**Consistent.** The project would be constructed by private developers who would use low-emission construction vehicles and equipment to improve air quality and reduce GHG emissions. See Sections 3.1.1, Air Quality, and 3.1.4, Greenhouse Gas Emissions, for additional information.
COS-14.11: Native Vegetation. Require development to minimize the vegetation management of native vegetation while ensuring sufficient clearing is provided for fire control.	**Consistent.** As described in the FPP (SWCA 2024b; Appendix L), Fuel Modification Zones (FMZs) would be implemented and maintained as follows: • An FMZ will be in place before any combustible material is brought on-site. • Designated areas will be mowed, brushed, chipped, or otherwise reduced to a vegetation height of less than 6 inches. Material may remain on-site, as long as it is spread out to a depth of no more than 6 inches. Alternative methods of vegetation control include manual removal, herbicide application,

Policy	Project Consistency with Policy
	prescribed herbivory, or installation of weed barriers in certain areas, such as beneath the PV modules. • A 30-foot FMZ around the solar panels (between the panels and native vegetation) will reduce vegetation to less than 6 inches and be regularly maintained. • Vegetation will be maintained to 10 feet on either side of every interior access road, ensuring minimum unobstructed vertical clearance of 13 feet and 6 inches. • A 100-foot FMZ around each BESS will reduce vegetation to less than 6 inches in height and be regularly maintained. • A 30-foot FMZ around the collector substation pad will reduce vegetation to less than 6 inches in height and be regularly maintained. • Vegetation under PV modules will be maintained to a vertical height of no more than 6 inches. • Vegetation within the 15 internal open space easements will be maintained to a vertical height of no more than 6 inches.
COS-15.6: Design and Construction Methods. Require development design and construction methods to minimize impacts to air quality.	**Consistent.** Construction of the project would result in a temporary addition of pollutants to the local air basin caused by soil disturbance, dust emissions, and combustion pollutants from on-site construction equipment and off-site trucks hauling construction materials, including water, to the site. However, the project would not result in any significant impacts related to air quality. In addition, the project would include fugitive dust BMPs to minimize air quality impacts during construction and ensure that impacts remain at a less-than-significant level. The project would adhere to County Code Section 87.428, Dust Control Measures and SDAPCD Rule 55 for fugitive dust emissions during construction and operation of the project. See Section 3.1.1, Air Quality, for additional information.
COS-17.1: Reduction of Solid Waste. Reduce greenhouse gas emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of solid waste that is generated. Divert solid waste from landfills in compliance with State law.	**Consistent.** Solid waste generated from construction would be minimized through efficient construction practices. Although nonrecyclable wastes would be collected and transported to a local landfill, construction waste would be recycled to the extent feasible to reduce impacts to landfills. Finally, development of the project would not involve the development of residential, commercial, or industrial uses common with substantial solid waste increases, and operational waste generated by the project would be minimal.
COS-17.2: Construction and Demolition Waste. Require recycling, reduction and reuse of construction and demolition debris.	**Consistent.** Recycling, reduction, and reuse of construction and demolition debris would be required during construction. In compliance with County Construction Demolition and Debris Management Plan requirements and in accordance with County Ordinance 68.508-68.518, recycling would be conducted during construction activities.
COS-18.1: Alternate Energy Systems Design. Work with San Diego Gas and Electric and non-utility developers to facilitate the development of alternative energy systems that are located and designed to maintain the character of their setting	**Consistent.** The County has worked with the Applicant to design the project to maintain the character of the setting to the maximum extent possible, including locating the solar facility adjacent to an existing substation. However, as identified in Section 2.1, Aesthetics, the project would result in a significant and unmitigable impact to the visual character.
COS-18.3: Alternate Energy Systems Impacts. Require alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment.	**Consistent.** The project has been fully analyzed in this EIR, and mitigation has been provided where applicable to reduce environmental impacts.

Policy	Project Consistency with Policy
COS-19.1: Sustainable Development Practices. Require land development, building design, landscaping, and operational practices that minimize water consumption.	**Consistent.** Construction of the project would require the use of water; however, water usage would be limited to the extent practicable. No landscaping is proposed, and water use during operation of the Boulder Brush Facilities would be limited to usage for cleaning and emergency purposes.
Safety Element (County of San Diego 2021)	
S-4.1: Defensible Development. Require development to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life safety resulting from wildland fires.	**Consistent.** The project would implement design features and mitigation measures that would meet or exceed all applicable state and county codes. These design features and action measures would mitigate increased human activity and potential for ignitions leading to a wildfire in the project and surrounding area.
S-4.2: Development in Hillsides and Canyons. Require development located in wildland areas, near ridgelines, top of slopes, saddles, or other areas where the terrain or topography affects its susceptibility to wildfires to be located and designed to account for topography and reduce the increased risk from fires. Density reduction may be necessary to reduce fire hazards if the location and design of the development cannot reduce the threat effectively.	**Consistent.** The project contains some steep slopes and ridgelines. However, an FPP has been prepared for the project, and design features would be implemented to reduce wildfire risk.
S-4.3: Minimize Flammable Vegetation. Site and design development to minimize the likelihood of a wildfire spreading to structures by minimizing pockets or peninsulas or islands of flammable vegetation within a development.	**Consistent.** The project includes an FMZ around solar arrays, new structures, interior roads, and the project perimeter. The FMZ would change fire behavior, reduce fuels in critical areas where new fire starts are likely, and create defensible space from off-site fuels to prevent large spread of a new fire regardless of the rate of spread.
S-4.4: Service Availability. Plan for development where fire and emergency services are available or planned.	**Consistent.** Fire protection for the portion of the project would be primarily provided by the San Diego County Fire Authority (SDCFA) and the California Department of Forestry and Fire Protection (CAL FIRE). SDCFA and CAL FIRE are collocated at the closest fire station, Station 47 in Boulevard, approximately 1 mile north of the project. The project meets the consolidated Fire Code and General Plan response time and distance requirements for rural land use zoning.
S-4.5: Access Roads. Require development to provide additional access roads where feasible to provide for safe access of emergency equipment and civilian evacuation concurrently. The width, surface, grade, radius, turnarounds, turnouts, bridge construction, vegetative management and brush clearance around roadways, and lengths of fire apparatus access roads shall meet the requirements of the State and San Diego County Consolidated Fire Codes. All requirements and any deviations will be at the discretion of the Fire Code Official.	**Consistent.** The project would be consistent with this policy. Each site entrance would feature a manual swing gate, and a sign with a lighted directory map and contact information. All entrance gates would feature a 'Knox Box' for emergency access. Interior site roads would be constructed as suitable for fire access roads and would be constructed to a minimum width of approximately 20 feet improved width.
S-4.6: Fire Protection Plans. Ensure that development located within fire hazard areas implement measures in a Fire Protection Plan that reduce the risk of structural and human loss due to wildfire.	**Consistent.** The project would implement an FPP (SWCA 2024b; Appendix L) that meets all County requirements and building codes. The project design and construction plan would meet all building codes for ignition-resistant structures, fire protection systems, placement of structures, and FMZs around structures, including PV modules and equipment. Additionally, the project would include additional measures such as extra water supply and hookups for firefighting resources, adequate emergency response resources in the vicinity, multiple fire access roads that meet fire codes, and FMZs around interior
S-4.7: Fire Resistant Construction. Require all new, remodeled, or rebuilt structures to meet current ignition resistance construction codes and establish and enforce reasonable and prudent standards that support retrofitting of existing structures in high fire hazard areas.	

Policy	Project Consistency with Policy
S-7.1: Water Supply. Ensure that water supply infrastructure adequately supports existing and future development and provides adequate water flow to combat structural and wildland fires. Water systems shall equal or exceed the California Fire Code, California Code of Regulations, or, where a municipal-type water supply is unavailable, the latest edition of National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting."	project roads to ensure there is no vertical obstruction of roads. The project would have a completed County of San Diego PDS Project Facility Availability – Fire Form (PDS-399F Form) and a Fire and Emergency Services Agreement.
S-7-2: Funding Fire Protection Services. Require development to contribute its fair share towards funding the provision of appropriate fire and emergency medical services as determined necessary to adequately serve the project.	**Consistent.** Per the project's approved fire service agreement, the project would contribute its fair share towards funding the provision of appropriate fire and emergency medical services as required by the County.
S-8.1: Development Location. Locate development in areas where the risk to people or resources is minimized. In accordance with the California Department of Conservation Special Publication 42, require development be located a minimum of 50 feet from active or potentially active faults, unless an alternative setback distance is approved based on geologic analysis and feasible engineering design measures adequate to demonstrate that the fault rupture hazard would be avoided.	**Consistent.** No part of the project is near a known earthquake fault zone. The nearest known fault, the Elsinore Fault, is 10 miles distant.
S-8.2: Risk of Slope Instability. Prohibit development from causing or contributing to slope instability.	**Consistent.** Global slope stability is not anticipated to be a design consideration at the project due to the relatively competent nature of the subsurface materials.
S-10.3: Development in Floodplains. Limit development in designated floodplains to decrease the potential for property damage and loss of life from flooding and to avoid the need for engineered channels, channel improvements, and other flood control facilities. Require development to conform to federal flood proofing standards and siting criteria to prevent flow obstruction.	**Consistent.** The project is designed to limit development within designated floodways and floodplains. Proposed structures (invertors, buildings, BESS, and substation) are not located within a designated floodplain or floodway. A few solar arrays would be located within a floodplain; however, they would be raised 1 foot above the base flood elevation. In addition, the project site is not downstream of a dam or located in an area likely to be affected by mudflows or debris flows. The project also does not propose any habitable structures.
S-11.4: Stormwater Management. Require development to incorporate low impact design, including site design, source control, and other measures to minimize stormwater impacts on drainage and flood control facilities and promote groundwater recharge, where feasible. In addition, require projects that are classified as Priority Development Projects to also incorporate pollutant control and hydromodification management measures.	**Consistent.** The project would minimize impervious surface areas, which would be limited to concrete pads for the substation and battery modules. The project would incorporate two detention basins and a series of stormwater piping which would provide stormwater detention to limit water flowing from the site due to new impervious surface resulting from the BESS facility and substation. The detention basins would be designed in accordance with the County of San Diego's hydraulic design manual (County of San Diego 2014b). Groundwater recharge on the project site would not be significantly altered, as the project site would consist of primarily permeable surfaces to allow for groundwater recharge similar to that under current conditions. See Section 2.4, Hydrology and Water Quality, for further information regarding groundwater recharge.
S-11.5: Development Site Improvements. Require development to provide necessary on- and off-site improvements to stormwater runoff and drainage facilities.	
S-11.6: Stormwater Hydrology. Ensure development avoids diverting drainages, increasing velocities, and altering flow rates to off-site areas to minimize adverse impacts to the area's existing hydrology.	**Consistent.** Refer to the Policy S-11.4 consistency analysis, above.
S-13.5: Development Adjacent to Agricultural Operations. Require development adjacent to existing agricultural operations in Semi-Rural and Rural Lands to adequately buffer agricultural areas and ensure compliance with relevant safety codes where pesticides or other hazardous materials are used.	**Consistent.** There are no agricultural operations in the vicinity of the project site. The closest Williamson Act Contract or County Agricultural Preserve is located approximately 1.1 miles southwest of the project site. Therefore, the project would not impact existing agricultural operations. Additionally, the project would abide by all setbacks and buffers required by the County Zoning Ordinance.

Policy	Project Consistency with Policy
Noise Element (County of San Diego 2011e)	
N-1.1: Noise Compatibility Guidelines. Use the Noise Compatibility Guidelines (Table N-1) and the Noise Standards (Table N-2) as a guide in determining the acceptability of exterior and interior noise for proposed land uses.	**Consistent.** An acoustical study and noise analysis report (dBF Associates 2024; Appendix J) was prepared to analyze noise impacts of the project. The project would not exceed any Noise Compatibility Guidelines (County of San Diego 2011e: Table N-1) or Noise Standards (County of San Diego 2011e: Table N-2) at the nearest sensitive receptors and would be in compliance with the County Noise Ordinance. See Section 2.5, Noise, for details of the noise analysis. Therefore, the project would not be required to implement noise management strategies.
N-1.2: Noise Management Strategies. Require the following strategies as higher priorities than construction of conventional noise barriers where noise abatement is necessary: • Avoid placement of noise sensitive uses within noisy areas • Increase setbacks between noise generators and noise sensitive uses • Orient buildings such that the noise sensitive portions of a project are shielded from noise sources • Use sound-attenuating architectural design and building features • Employ technologies when appropriate that reduce noise generation (i.e., alternative pavement materials on roadways).	
N-2.1: Development Impacts to Noise Sensitive Land Uses. Require an acoustical study to identify inappropriate noise level where development may directly result in any existing or future noise sensitive land uses being subject to noise levels equal to or greater than 60 CNEL and require mitigation for sensitive uses in compliance with the noise standards listed in Table N-2 of the County's General Plan Noise Element.	
N-3.1: Groundborne Vibration. Use the Federal Transit Administration and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that sensitive uses may have to ground-borne vibration from trains, construction equipment, and other sources.	
N-4.9: Airport Compatibility. Assure the noise compatibility of any development projects that may be affected by noise from public or private airports and helipads during project review by coordinating, as appropriate, with appropriate agencies such as the San Diego County Regional Airport Authority (SDCRAA) and the Federal Aviation Administration (FAA).	**Consistent.** The nearest public airport is Jacumba Airport, approximately 7 miles east of the project site and the project site is not within its Airport Influence Area. There is an existing private airstrip within the project site which is located in an existing streambed and would no longer be in use. Therefore, the project would not be affected by noise from a public or private airport or helipad.
N-6.2: Recurring Intermittent Noise. Minimize impacts from noise in areas where recurring intermittent noise may not exceed the noise standards listed in Table N-2 but can have other adverse effects.	**Consistent.** An acoustical study and noise analysis report was prepared to analyze noise impacts of the project (dBF Associates 2024; Appendix J). The project would not exceed any Noise Compatibility Guidelines (County of San Diego 2011e: Table N-1) or Noise Standards (County of San Diego 2011e: Table N-2) at the nearest sensitive receptors and would be in compliance with the County Noise Ordinance. See Section 2.5, Noise, for details of the noise analysis. Therefore, the project would not be required to implement noise management strategies.
N-6.4: Hours of Construction. Require development to limit the hours of operation as appropriate for non-emergency construction and maintenance, trash collection, and parking lot sweeper activity near noise sensitive land uses	

Table 3.1.6-3. Project Consistency with Subregional Plan Policies

Policy	Project Consistency with Policy
Mountain Empire Subregional Plan, County of San Diego General Plan (County of San Diego 2016)	
Land Use	
Policy and Recommendation 1. The landforms of the Subregion are an important environmental resource that should be respected in new development. Hillside grading shall be minimized and designed to blend in with the existing natural contours.	**Consistent.** The solar facility (i.e., all components of the project) would be consistent with this policy. The general topography within the project site consists of flat land and gently rolling hills. Grading would be necessary for the construction of access and service roads and the installation of solar arrays; trenching for the underground electrical DC and AC collection system, including the telecommunication lines; and construction of the project substation. Hillside grading would be minimized and designed to conform to the existing contours to the extent feasible.
Policy and Recommendation 4. Ensure that all development be planned in a manner that provides adequate public facilities prior to or concurrent with need.	**Consistent.** The project would be unoccupied and would not require potable water or wastewater services. Nonpotable water (primarily for panel washing) would be purchased from the Jacumba Community Services District.
Policy and Recommendation 9. Parking lots for commercial uses may utilize permeable surfacing materials such as gravel or decomposed granite, in order to minimize surface runoff and maximize groundwater recharge.	**Consistent.** All internal roads and parking areas would be constructed of decomposed granite, in order to minimize surface runoff and maximize groundwater recharge. Groundwater recharge on the project site would not be significantly altered, as the project site would consist of primarily permeable surfaces to allow for groundwater recharge similar to that under current conditions. See Section 2.4, Hydrology and Water Quality, for further information regarding groundwater recharge.
Public Facilities and Services	
Policy and Recommendation 1. Maintain unobstructed access to and along the path of existing power transmission facilities and lines.	**Consistent.** SDG&E has reviewed and approved the transmission line right-of-way and plans and improvements to the Boulevard substation.
Policy and Recommendation 2. Any proposed grading, improvements, or other encroachments to the substation or transmission rights-of-way must be reviewed by SDG&E	
Policy and Recommendation 3. Any alteration of drainage patterns affecting the substation or transmission line right-of-ways should be reviewed and approved by SDG&E.	
Policy and Recommendation 4. Uses proposed for the property adjacent to substations or transmission line rights-of-ways should be reviewed for possible impacts to the power facilities and vice versa.	
Conservation	
Policy and Recommendation 1. All development shall demonstrate a diligent effort to retain as many native oak trees as possible.	**Consistent.** The project has prepared a biological impact report that demonstrates appropriate design, avoidance, and mitigation to demonstrate that many native oak trees have been avoided.

Policy	Project Consistency with Policy
Policy and Recommendation 3. Floodways shall be maintained in their natural unless findings can be made that a threat to public safety exists.	**Consistent.** Development of the project would include the construction of private permanent access roads within the project to allow for continuity between transmission poles, switchyard, and collector substation, but would not create any new public roadways. The project is not located within a 100-year flood hazard area such that development of the project that would impede or redirect flood flows. Drainage channel crossings on project access roads would be constructed to convey the 100-year storm runoff flows**.**
Policy and Recommendation 4. The dark night sky is a significant resource for the Subregion and appropriate steps shall be taken to preserve it.	**Consistent.** Lighting installed at the project for the operational phase would be hooded, directed downward, and turned off when not required, and substation equipment would feature a low reflectivity finish to minimize glare. Lighting for the project would be fully compliant with the County's Light Pollution Code.
Policy and Recommendation 5. Development shall not adversely affect the habitat of sensitive plant and wildlife species or those areas of significant scenic value.	**Consistent.** The project would result in impacts to sensitive vegetation communities. The project would result in potentially significant short-term and long-term direct and/or indirect impacts to special-status plants, special-status wildlife species, and wildlife habitat, as well as short-term direct impacts to wildlife movement and migratory birds. Mitigation for the project includes off-site preservation of similar habitat types; construction monitoring, flagging, and other BMPs; nesting bird surveys; avian and bat monitoring; fire protection; access control; and federal and state agency permits. All significant impacts would be reduced to less than significant with implementation of mitigation measures. Regarding scenic value, the project has been designed to minimize impacts to the scenic value of the area.
Energy Conservation	
Policy and Recommendation 8.1. New development should utilize alternative energy technologies, especially active and passive solar energy systems.	**Consistent.** The project would deliver renewable energy to the power grid. This solar energy would be eligible for the state's Renewable Portfolio Standard and would be used by existing or future development.
Boulevard Subregional Planning Area, Mountain Empire Subregional Plan (County of San Diego 2013)	
Policy LU 1.1.2. Encourage development to protect the quality and quantity of ground and surface water resources, air quality, dark skies, visual resources, and low ambient noise levels, as well as retain and protect the existing natural and historic features characteristic of the community's landscape and natural environment.	**Consistent.** Potential impacts associated with quality and quantity of groundwater and surface water, air quality, dark skies, visual resources, and noise have all been analyzed and disclosed within this EIR. Mitigation measures have been provided to mitigate potential impacts to the extent feasible.
Policy LU 1.1.3. Encourage development to respectfully incorporate existing topography and landforms, watersheds, riparian areas, oaks, and other native vegetation and wildlife, ridgelines, historic and cultural resources, views, and sustainability design factors.	**Consistent.** The project facilities have been designed to minimize impacts to existing topography, landforms, riparian areas, oaks, native vegetation and wildlife, ridgelines, cultural resources, and views to the extent practicable.
Policy LU 3.1.1. Encourage development to preserve dark skies with reduced lighting and increased shielding requirements.	**Consistent.** The project would comply with the County of San Diego Light Pollution Code, also known as the Dark Sky Ordinance (San Diego County Code of Regulatory Ordinances, Section 51.201 et seq.). Additionally, lighting for the project would be designed in accordance with the San Diego County Zoning Ordinance, Performance Standards Section 6320, 6322, and 6324, which guide performance standards for glare, and controls excessive or unnecessary outdoor light emissions. Lighting for the project would use shielded bulbs, with motion detection, and a maximum of 100 watts.

Policy	Project Consistency with Policy
Policy LU 3.2.1. Require development to minimize impacts to the native and riparian habitat.	**Consistent.** The project site includes 15 existing open space easement areas which would be fenced and protected from development. In addition, the project includes a new 448-acre open space easement area to provide protection in perpetuity for natural resources and maintain wildlife movement at a landscape level that would be granted to the County or other approved conservation entity in perpetuity. While the project site does consist of rural lands, the project site does not contain wetland habitats. The project has several wetland areas on-site that would be protected from development.
Policy LU 3.3.1. Encourage the designation, protection, and long-term management of historic sites in the Boulevard area.	**Consistent.** The project includes 15 open space easement areas within the MUP project site, totaling 24.4 acres. These areas are designed to protect historic resources and would be fenced and gated.
Policy LU 6.1.1. Require commercial, industrial development and large-scale energy generation projects to mitigate adverse impacts to the rural community character, charm, quiet ambiance and lifestyle, or the natural resources, wildlife, and dark skies of Boulevard, if feasible, in accordance with the California Environmental Quality Act.	**Consistent.** The project proposes a large-scale energy facility evaluated in accordance with CEQA. Although the land within the project site has been historically of rural character, there has been a recent increase in renewable energy development in the region. Regarding impacts to natural resources and wildlife, potential impacts would occur as a result of the project; however, mitigation for the project has been provided that would reduce impacts to below a level of significance. Regarding lighting and potential impacts to dark skies, outdoor lighting would be hooded, directed downward, turned off when not required, and kept to a minimum for safety purposes.
Policy LU 6.1.2. Encourage commercial, industrial development and large-scale energy generation projects to create and maintain adequate buffers between residential areas and incompatible activities that create heavy traffic, noise, infrasonic vibrations, lighting, odors, dust and unsightly views and impacts to groundwater quality and quantity.	**Consistent.** The project proposes a large-scale energy facility, and adequate buffers would be provided, as required, to shield residential areas from incompatible activities that could result in environmental impacts, including traffic, noise, vibration, lighting, odor, dust, unsightly views, and groundwater quality and quantity. Each of these potential environmental impacts and their effect on sensitive receptors have been analyzed in this EIR.
Policy LU 6.1.3. Encourage commercial, industrial development and large-scale energy generation projects to provide buffers from public roads, adjacent and surrounding properties and residences, recreational areas, and trails.	**Consistent.** Adequate buffers would be provided, as required, from public roads, surrounding properties, recreational areas, and trails. The project would comply with the setback regulations as indicated in the Zoning Ordinance (Setback Regulations, Section 4800).
Policy CM 8.1.1. Prohibit development and the exportation or sale of groundwater that would adversely impact the ground and surface water resources.	**Consistent.** The project would purchase nonpotable water from the Jacumba Community Services District for use on-site. No water would be exported.
Policy CM 8.3.1. Require that the source and quality of water that is imported into the area via tanker trucks or other means, for use on major construction projects, will be verified and validated to avoid contamination of local surface and groundwater resources.	**Consistent.** Nonpotable water would be supplied by the Jacumba Community Services District and used to supply construction, operation and maintenance, and decommissioning of the project. The project would implement a groundwater monitoring and mitigation plan to provide protection of groundwater resources of the Jacumba Valley Groundwater Basin underlying the community of Jacumba Hot Springs, California.

Policy	Project Consistency with Policy
Policy CM 8.5.1. Prohibit development from altering natural drainage patterns.	**Consistent.** The project would result in an increase of 10.49 acres of impervious surfaces, and thus would not result in substantial changes to the rate, volume, and location of stormwater runoff. The project would intersect the Boundary Creek watercourse and an unnamed tributary of the creek; however, these features have been altered and are now discontinuous or disconnected within the survey area. The project would also implement the required Standard SWQMP, SWPPP, and requirements to obtain permits from the U.S. Army Corps of Engineers and RWQCB pursuant to the Clean Water Act.
Policy CM 8.6.1. Encourage the use of existing right-of-way when construction of new transmission lines is required, where technically and economically feasible. Additionally, encourage existing right-of-way over new right-of-way alignments for construction of new transmission lines when existing right-of-way is insufficient.	**Consistent.** The gen-tie line is located in an existing right-of-way.

As demonstrated above, the project would be consistent with all applicable County policies. Therefore, the project would be consistent with the identified land use policies and impacts would be **less than significant.**

3.1.6.4 Cumulative Impact Analysis

While land use and planning impacts are generally localized and specific to particular actions, the project may potentially interact with other past, present, or future projects, leading to unintended land use impacts, such as reducing available open space or diminishing the visual character of the community. The cumulative analysis for land use and planning impacts was performed using the projects listed in Table 1-4, in Chapter 1, Project Description, Location, and Environmental Setting. Cumulative projects in the area include several existing and proposed wind and solar renewable energy projects, public facilities improvement projects, and the Rough Acres Ranch Campground, all within the Mountain Empire Subregion.

Cumulative, Physically Divide an Established Community

Implementation of the project, along with existing and future cumulative projects, would not disrupt or divide the established community of Boulevard or any other communities within the Mountain Empire Subregion. Adequate access to roadways and other rights-of-way would be maintained throughout construction, operation, and decommissioning of each project. Therefore, the proposed project **would not contribute to a cumulative impact** on the physical division of an established community.

Cumulative, Conflict with an Applicable Land Use Plan, Policy, or Regulation

The project would not conflict with the appliable land use policies in the County General Plan, the Mountain Empire Subregional Plan, and the Boulevard Subregional Plan, as demonstrated in Tables 2.6-1, 2.6-2, and 2.6-3.

While the project is located in an area which includes some interstate and local roadway development, regional electrical infrastructure, and utility-scale energy projects, the predominant characteristic of existing development in the cumulative study area is that of a rural residential community and environment. Cumulative projects in the planning stage, including Campo Wind and Rugged Solar, similarly were found to be consistent with applicable land use policies. In conjunction with the project, the cumulative projects would not result in a cumulative conflict with applicable land use plans, policies, or regulations. Therefore, the proposed project **would not contribute to a cumulative impact** related to conflicts with applicable land use plans and policies.

3.1.6.5 Conclusion

Physically Divide an Established Community

The proposed project is a solar energy generation and storage facility. The project site is directly south of the community of Boulevard. Access to the Boulevard community and Old Highway 80 would not be disrupted or divided by the project. Since the project would not divide the adjacent established community of Boulevard, it would have **less than significant** impacts in terms of physically dividing an established community.

Conflict with an Applicable Land Use Plan, Policy, or Regulation

As shown above in Tables 2.6-1, 2.6-2, and 2.6-3, the project would be consistent with all applicable land use policies found in the County General Plan, the Mountain Empire Subregional Plan, and the Boulevard Subregional Plan. Therefore, impacts would be **less than significant** in terms of conflicting with appliable land use plans, policies, or regulations**.**

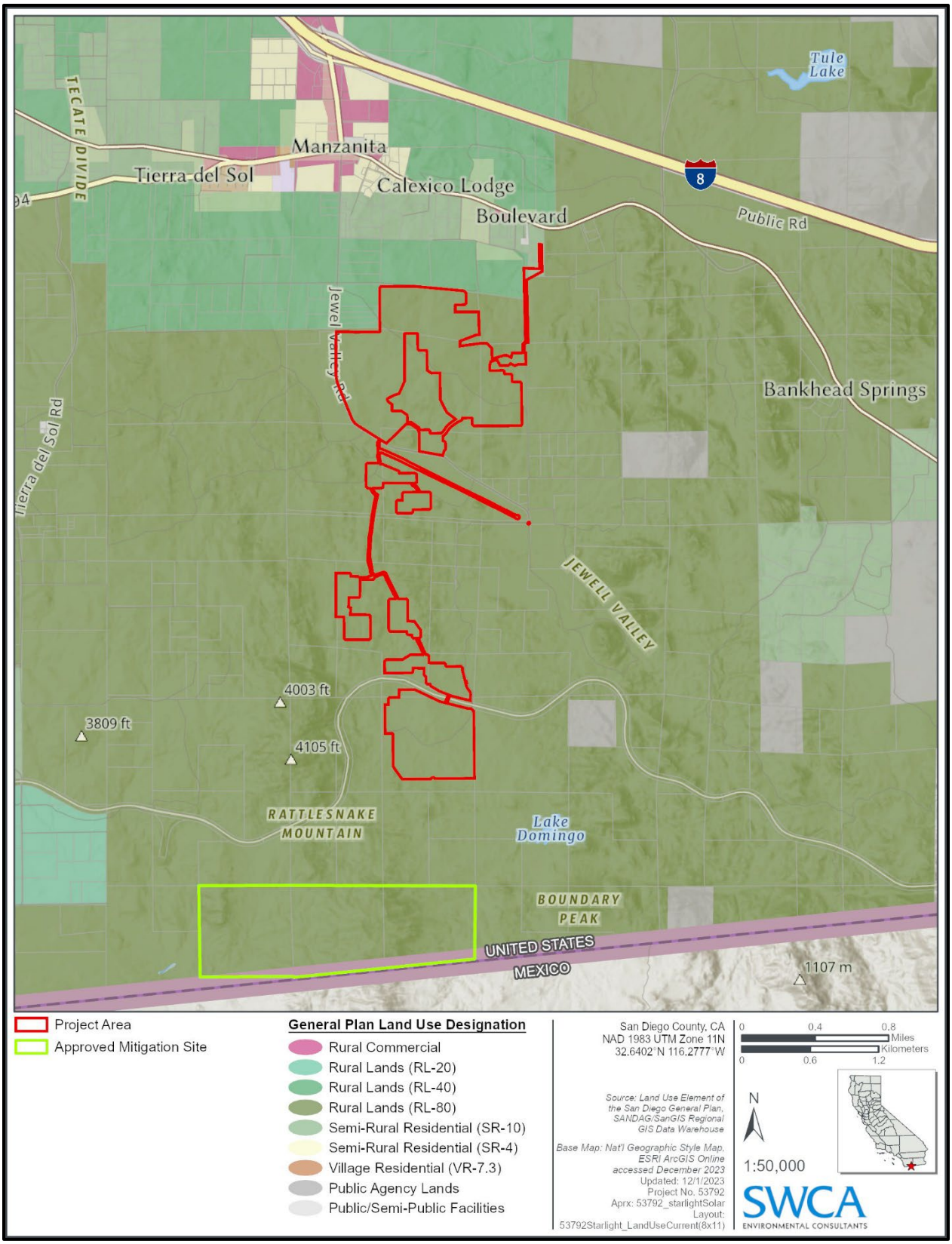

Figure 3.1.6-1. Land Use Designations Map

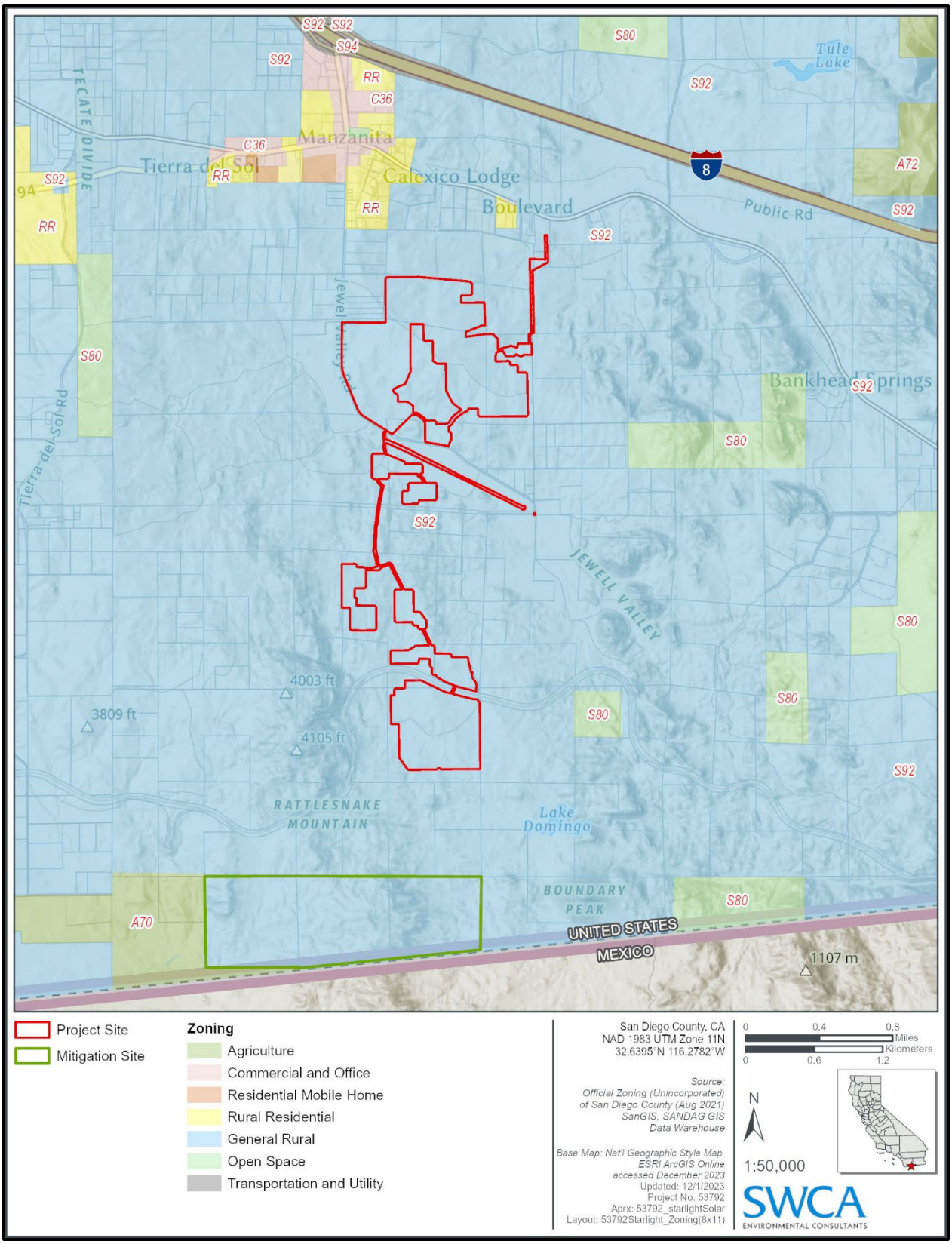

Figure 3.1.6-2. Zoning Map

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3.1.7 Mineral Resources

This section of the Environmental Impact Report (EIR) analyzes potential impacts to mineral resources resulting from the implementation of the Starlight Solar project (project). The analysis is based on review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical report which was prepared for the project in accordance with *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Mineral Resources* (County of San Diego 2008):

- *Mineral Resource Technical Study, Proposed Starlight Solar Project, San Diego County, California* (Leighton Consulting, Inc.) (Appendix N of this EIR)

No comments regarding mineral resources were received in response to the Notice of Preparation (NOP). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.7.1 Existing Conditions

Topographical Setting

The project site is located within the U.S. Geological Survey (USGS) 7.5-minute Live Oak Springs quadrangle, generally between Interstate 8 (I-8) and the U.S.–Mexico border and near Jewell Valley and Manzanita, California. Topography on the 588-acre site ranges from gently sloping valley floor to moderately steep existing natural slopes approaching 1:1 (horizontal to vertical) slope inclinations at various areas of the project site. The project site encompasses two topographically high areas, one north and one south, that are transected by a southeast-flowing broad drainage that includes Boundary Creek. Within the project area, the existing elevations range from a high of approximately 3,700 feet above mean sea level (amsl) in the north and 3,650 feet to the south, to a low of approximately 3,450 feet within the drainage of Boundary Creek. The surrounding hills around the project site peak between elevations of 3,600 and 4,000 feet amsl.

Geology

The project site is located in the lower Peninsular Range Region of San Diego County, a subset of the greater Peninsular Ranges geomorphic province of California. The Peninsular Ranges geomorphic province is approximately bounded to the east by Elsinore Fault Zone, to the north by the Transverse Ranges, to the south by Baja California, and to the west by the Pacific Ocean. The project site is underlain by Cretaceous plutonic rocks. The plutonic rocks are non-conformably overlain by a relatively thin sequence of generally unconsolidated Holocene colluvium consisting of silty and clayey sand with scattered gravels. Surficial units on-site include undocumented artificial fill (unmapped), topsoil/colluvium (Qc), and bedrock units (Klp). The sole bedrock unit on-site is Tonalite of La Posta (Klp). Additional detailed information regarding the surficial and bedrock units can be found in Appendix N.

Land Use

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) designates a majority of the project site (16 of the 18 parcels) as Rural Lands with an 80-acre minimum size (RL-80). The generation-tie line route and San Diego Gas and Electric (SDG&E) Boulevard East Substation are designated as Semi-Rural Residential (SR-10), and the County Zoning Ordinance (County of San Diego 2025) identifies the site as General Rural (S-92) (County of San Diego 2023). Land to the north of the site, between the project and I-8, is designated as Rural Lands with

20-acre and 40-acre minimum size (RL-20 and RL-40), as well as RL-80. The surrounding areas can be characterized as a predominantly rural landscape featuring large-lot ranches and single-family homes with a mixture of small-scale agriculture, recreational opportunities, and vast areas of undeveloped lands.

Open Space Easement Areas

As shown in Figure 1-6 (Chapter 1.0, Project Description, Location, and Environmental Setting), the project contains 15 cultural open space easement areas designed to protect sensitive cultural resources within the Major Use Permit (MUP) project site, totaling 24.4 acres. No development or disturbance would occur within the open space easement areas. These areas would be fenced with a 6-foot-high chain-link perimeter fence with an additional foot of three strands of barbed wire along the top. Each open space easement area would include a gated entrance. Phase 1 would include four open space easement areas totaling 7.08 acres. Phase 2 would include 11 open space easement areas totaling 17.32 acres.

As shown in Figure 3.1.7-1, an off-site biological open space easement would be granted over 448 acres of sensitive vegetation communities, special-status plant species, and habitat for special-status species to protect sensitive biological resources (Appendix D.1, Biological Resources Report). This easement would be for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space.

Mineral Resource Potential

As mandated by the Surface Mining and Reclamation Act of 1975 (SMARA), the California State Mining and Geology Board classifies California mineral resources with the Mineral Resource Zones (MRZs) system. These zones have been established based on the presence or absence of significant sand and gravel deposits and crushed rock source area, e.g., products used in the production of cement. The classification system emphasizes Portland cement concrete aggregate, which is subject to a series of specifications to ensure the manufacture of strong durable concrete.

The following guidelines are presented in the mineral land classification for the region (Kohler and Miller 1982; Miller 1996).

- **MRZ-1** - Areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2** - Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that there is a high likelihood for their presence.
- **MRZ-3** - Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- **MRZ-4** - Areas where available information is inadequate for assignment to any other MRZ zone.

The project site is within southeastern San Diego County which has no mapped MRZs (see Appendix N). Specifically, it should be noted that the project site does not contain MRZ-2 zones within or adjacent to the boundaries; the closest MRZ-2 zone is located to the northwest roughly 50 miles away. The project site also does not contain MRZ-3 zones.

The project site is a different geologic province than is typical of MRZ-2 zones. It is predominantly colluvium and granitic rock site, with fine-grained silty sand deposits overlying the granitic rock. The project site is not located in an area near existing aggregate production areas. The nearest production areas

within San Diego County are at least 35 miles away. Closer production areas located in Imperial County are at least 20 miles away.

Documented historical mineral resource deposits have been identified directly east of the project site (see Appendix N). The quarry deposits consist of vertical pegmatite dike which was exposed as a small round hill 50 feet high, composed of quartz and potash feldspar. The quartz was previously mined in the 1920s and was shipped to Los Angeles. The quarry has remained idle since that time. It was estimated in 1957 that about 5,000 to 10,000 tons of quartz remain in the deposit. However, quartz is not considered an economical resource or suitable for aggregate production. The preferred rock for aggregate production in San Diego County generally consists of fresh crystalline rock or metavolcanic rock.

3.1.7.2 Regulatory Setting

Federal Regulations

There are no relevant federal regulations for mineral resources.

State Regulations

California Surface Mining and Reclamation Act

SMARA (California Public Resources Code [PRC] 2710 et seq.) was enacted by the California Legislature to address the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. Pursuant to its provisions, the State Mining and Geology Board receives classification information from the California State Geologist and then prioritizes and designates lands containing mineral deposits of regional or statewide significance. Areas that are generally given highest priority for classification are those subject to urban expansion or other irreversible land uses that would preclude mineral extraction. Mineral lands are mapped according to jurisdictional boundaries (i.e., counties), mapping all mineral commodities at one time in the area, using the California Mineral Land Classification System (California Department of Conservation 2025).

Local Regulations

County of San Diego General Plan

The Mineral Resources section of the Conservation and Open Space Element of the General Plan (County of San Diego 2011b) identifies goals and policies intended to assure an adequate supply of mineral resources to support the economic activity projected to occur under the General Plan and to assure compliance with the requirements of the SMARA regarding the conservation of mineral resources and the permitting and reclamation of mining sites. The following goals and policies are identified:

- **GOAL COS-10: Protection of Mineral Resources.** The long-term production of mineral materials adequate to meet the local County average annual demand, while maintaining permitted reserves equivalent to a 50-year supply, using operational techniques and site reclamation methods consistent with SMARA standards such that adverse effects on surrounding land uses, public health, and the environment are minimized.
    - **COS-10.1 Siting of Development.** Encourage the conservation (i.e., protection from incompatible land uses) of areas designated as having substantial potential for mineral extraction. Discourage development that would substantially preclude the future development of mining facilities in these areas. Design development or uses to minimize the potential conflict with existing or potential future mining facilities. For purposes of this policy, incompatible land uses are defined by SMARA Section 3675.

- **COS-10.2 Protection of State-Classified or Designated Lands.** Discourage development or the establishment of other incompatible land uses on or adjacent to areas classified or designated by the State of California as having important mineral resources (MRZ-2), as well as potential mineral lands identified by other government agencies. The potential for the extraction of substantial mineral resources from lands classified by the State of California as areas that contain mineral resources (MRZ-3) shall be considered by the County in making land use decisions.
- **COS-10.3 Road Access.** Prohibit development from restricting road access to existing mining facilities, areas classified MRZ-2 or MRZ-3 by the State Geologist, or areas identified in the County Zoning Ordinance for potential extractive use in accordance with SMARA Section 2764.a.
- **COS-10.4 Compatible Land Uses.** Discourage the development of land uses that are not compatible with the retention of mining or recreational access to non-aggregate mineral deposits. See Policy COS-10.1 for a definition of incompatible land uses.
- **COS-10.6 Conservation of Construction Aggregate.** Encourage the continued operation of existing mining facilities and streamline the permitting of new mining facilities consistent with the goal to establish permitted aggregate resources that are sufficient to satisfy 50 years of County demand.
- **COS-10.7 Recycling of Debris.** Encourage the installation and operation of construction and demolition (C&D) debris recycling facilities as an accessory use at permitted (or otherwise authorized) mining facilities to increase the supply of available mineral resources.
- **COS-10.8 New Mining Facilities.** Develop specific permit types and procedures for the authorization of new mining facilities that recognize the inherent physical effects of mining operations and the public necessity for available mineral resources adequate to meet local demand, in accordance with PRC Section 2762.
- **COS-10.9 Overlay Zones.** Provide zoning overlays for MRZ-2 designated lands and a 1,300-foot-wide buffer area adjacent to such lands. Within these overlay zones, the potential effects of proposed land use actions on potential future extraction of mineral resources shall be considered by the decision makers.

San Diego County Zoning Ordinance, Sections 2820–2835, S82 Extractive Use Regulations

Sections 2820 et seq. of the San Diego County Zoning Ordinance are known as the S82 Extractive Use Regulations and are intended to identify and create areas within San Diego County where mining, quarrying, or oil extractive uses are permitted. Typically, the S82 Extractive Use Regulations would be applied to areas of mineral deposits to signify the presence of such deposits and notify adjacent or affected properties of the intention to allow extraction of minerals within the zone. They would be used to preserve areas with valuable mineral deposits until extraction can take place.

San Diego County Zoning Ordinance, Sections 6550–6556, Extractive Use Regulations

San Diego County Zoning Ordinance, Sections 6550 et seq., are known as the Extractive Use Regulations and provide the means for public review and regulation of mineral extraction and associated on-site processing operations.

County of San Diego Code of Regulatory Ordinances Sections 87.701–87.714, Surface Mining

In 2003, the Board of Supervisors added Sections 87.701 through 87.714, entitled Surface Mining, to the County Code of Regulatory Ordinances. This ordinance regulates all surface mining operations in the unincorporated areas of San Diego County, as authorized by the County Zoning Ordinance and SMARA, to ensure that

a) The continued mining of minerals will be permitted in a manner which will protect the public health and safety and will provide for the protection and subsequent beneficial use of mined and reclaimed land;

b) The possible adverse effects of surface mining operations on the environment, including air pollution, impedance of groundwater movement, water quality degradation, damage to aquatic or wildlife habitat, flooding, erosion and sedimentation, will be prevented or minimized; and

c) The production and conservation of minerals will be encouraged while giving consideration to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment.

This ordinance is intended to implement the minimum requirements of SMARA and to specify local requirements. The ordinance requires that no person conduct surface mining unless a MUP is obtained, a Reclamation Plan is approved as provided by the Zoning Ordinance and SMARA, and financial assurances for reclamation have been approved by the County. Grading performed pursuant to such a MUP or Reclamation Plan must be in accordance with a plot plan and conditions approved therewith.

3.1.7.3 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

For the purposes of this section, the County's *Guidelines for Determining Significance and Report Format and Content Requirements – Mineral Resources* (County of San Diego 2008) guide the evaluation of whether a significant impact to mineral resources will occur as a result of project implementation. The project would have a significant impact to mineral resources if:

1. The project is:
   - On or within the vicinity (generally up to 1,300 feet from the site) of an area classified as MRZ-2; or
   - On land classified as MRZ-3; or
   - Underlain by Quaternary alluvium; or
   - On a known sand and gravel mine, quarry, or gemstone deposit;

   AND

   The project will result in the permanent loss of availability of a known mineral resource that would be of value to the region and the residents of the state;

   AND

   The deposit is minable, processable, and marketable under the technologic and economic conditions that exist at present or which can be estimated to exist in the next

50 years and meets or exceeds one or more of the following minimum values (in 1998 equivalent dollars):

- Construction materials (sand and gravel, crushed rock), $12,500,000
- Industrial and chemical mineral materials (limestone, dolomite, and marble [except where used as construction aggregate]; specialty sands, clays, phosphate, borates and gypsum, feldspar, talc, building stone and dimension stone), $2,500,000
- Metallic and rare minerals (precious metals [gold, silver, platinum], iron and other ferroalloy metals, copper, lead, zinc, uranium, rare earths, gemstones and semi-precious materials, and optical–grade calcite), $1,250,000

2. The project would result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Known Mineral Resource

The project site is within southeastern San Diego County, which includes no mapped MRZs (Figure 3.1.7-2). Specifically, it should be noted that the project site does not contain MRZ-2 zones within or adjacent to the boundaries; the MRZ-2 zone closest to the project site is located to the northwest roughly 50 miles away. The vast majority of existing MRZ-2 zones are mapped in Quaternary alluvial areas and Tertiary conglomerate deposits and therefore have irregular, organic limits defined by low-lying topographic drainages. Geologically, these areas are generally characterized by the presence of younger (Quaternary-aged) river channel, floodplain, and terrace deposits that have been eroded from the older (Tertiary to Cretaceous-aged) bedrock units, transported, and redeposited. They consist of naturally loose mixtures of sands and rounded gravels. Laboratory testing has also confirmed the physical and chemical characteristics of these mapped deposits are appropriate for Portland cement concrete (PCC)–grade aggregate. In contrast, the proposed project would be within a different geologic province than is typical of MRZ-2 zones, in that the project site is a predominantly underlain by colluvium and granitic rock with fine-grained silty sand deposits overlying the granitic rock. In addition, the project would be east and outside of the County-mapped P-C boundary which is an uncategorized zone. The site is also not in an area near existing aggregate production areas.

The nearest production areas within San Diego County are at least 35 miles away. Closer production areas in Imperial County are at least 20 miles away. Including the off-site open space easements, the project area encompasses approximately 1,036 acres. Most of the proposed development footprint is covered with rugged mountainous terrain and a light to dense growth of native shrubs and trees. A network of improved and unimproved roads provides access throughout the site. The Carrizo Gorge Railway easement is located within the southern portion of the site. Electrical transmission lines associated with SDG&E transect the western to central portions of the site. Documented historical mineral resource deposits, known as the Walker quarry, have been identified just outside the site (Figure 3.1.7-3). The Walker quarry deposits consist of a vertical pegmatite dike that was exposed as a small round hill 50 feet high; the deposits consist of quartz and potash feldspar. The quartz was previously mined in the 1920s and was shipped to Los Angeles. The quarry has remained idle since that time. It was estimated in 1957 that about 5,000 to 10,000 tons of quartz remain in the deposit. However, quartz is not considered an economical resource or suitable for aggregate production.

The preferred rock for aggregate production in San Diego County generally consists of fresh crystalline rock or metavolcanic rock. It should be noted that most of the western San Diego region is mapped as an MRZ-3 zone (San Diego County 2008). Generally, these areas geologically consist of the older bedrock

units, including the crystalline and metavolcanic rocks that are mapped over nearly two-thirds of San Diego County. These areas are also commonly found in rugged mountainous terrain relatively isolated from existing development and infrastructure. As noted in Miller (1996), these materials can be crushed to yield PCC-grade aggregate provided they possess the appropriate chemical characteristics. Despite considerable costs associated with crushing, additional processing, and transportation, crushed rock has been a feasible source.

Reclassification of an MRZ-3 zone to an MRZ-2 designation is under the purview of the California State Geologist; however, the proposed project is in an unmapped region of San Diego County. The criteria include determination that the "deposit is minable, processable, and marketable under the technologic and economic conditions that exist at present or which can be estimated to exist in the next 50 years and meets or exceeds (in 1996 equivalent dollars) $12,150,000 for construction materials" (Miller 1996). Note this equated to $5,000,000 in 1978 dollars when the guidelines were first written. In 2024 equivalent dollars, the value is currently equated to $24,005,000.00 (U.S. Bureau of Labor Statistics 2024).

As shown in Figures 3.1.7-1 and 3.1.7-2, an off-site biological open space easement would be granted over 448 acres of sensitive vegetation communities, special-status plant species, and habitat for special-status species to protect sensitive biological resources (see Appendix D.1). This easement would be for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The available potential resources within the off-site biological resources open space easement area, following application of setbacks, include up to 104 acres of potential resource, which amounts to roughly 1,245,816 tons of potential sand and aggregate. Assuming a price of $22.00 per ton, a density of 0.055 tons per cubic foot, and a waste factor of approximately 20%, the value of material would be roughly $19,933,056, which would not exceed the threshold ($24,005,000) for the County's definition of a significant impact (adjusted to 2024 inflation).

Due to the presence of abundant fine-grained colluvial silty and clayey sand deposits within the mapped colluvium, the site is not considered a marketable minable resource. In addition, the project site is not located on or within 1,300 feet of land classified as MRZ-2 and is not on a known gemstone deposit. Therefore, the project would have a **less than significant impact** with respect to the permanent loss of the minable, processable, and marketable mineral resources underlying portions of the project site, which do not exceed the County's minimum value thresholds.

Locally Important Mineral Resource

The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. The project site is not zoned as S82 by the Extractive Land Use Overlay or the General Plan Extractive Land Use Designation and Impact-Sensitive Land Use Designation. Further, no known mapped industrial and chemical materials nor metallic and rare minerals are known in the project area. Therefore, the project would have a **less than significant impact** on the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

3.1.7.4 Cumulative Impact Analysis

Other cumulative projects in the vicinity of the proposed project are similarly not located within a County-designated MRZ or have known mineral resources. Therefore, in combination with the cumulative projects, the project would not result in a **cumulatively considerable impact**.

3.1.7.5 Conclusion

Due to the presence of abundant fine-grained colluvial silty and clayey sand deposits within the mapped colluvium, the colluvium underlying the site is not considered a marketable minable resource. In addition, the project site is not located on or within 1,300 feet of land classified as MRZ-2 and is not on a known gemstone deposit.

The project site is adjacent to incompatible land uses (e.g., residential and commercial development) that require a 1,300-foot setback, and surrounded and transected by land uses (e.g., railroad tracks, electrical transmission lines, commercial airport, and county and state roadways) that would include a 100-foot setback for any mineral extraction to occur on the project site (see Figures 3.1.7-3 and 3.1.7-4). Accordingly, some potential mineral resources on the project site have already been lost due to land use incompatibility posed by setbacks. Regarding the Quaternary colluvium within the project site, based on the field mapping of the colluvium, it is estimated that the waste factor will likely exceed 20%. A factor of 20% is commonly used for commercial mining operations to consider the economic feasibility for recovery of the resource.

The composition of the mineral resources on the vast majority of the site along with transportation factors renders the resources unmarketable under the technologic and economic conditions that exist at present, or which can be estimated to exist in the next 50 years. As the project site is not within a County-designated MRZ and does not contain known mineral resources worthy of extraction, a **less than significant impact** on mineral resources would occur.

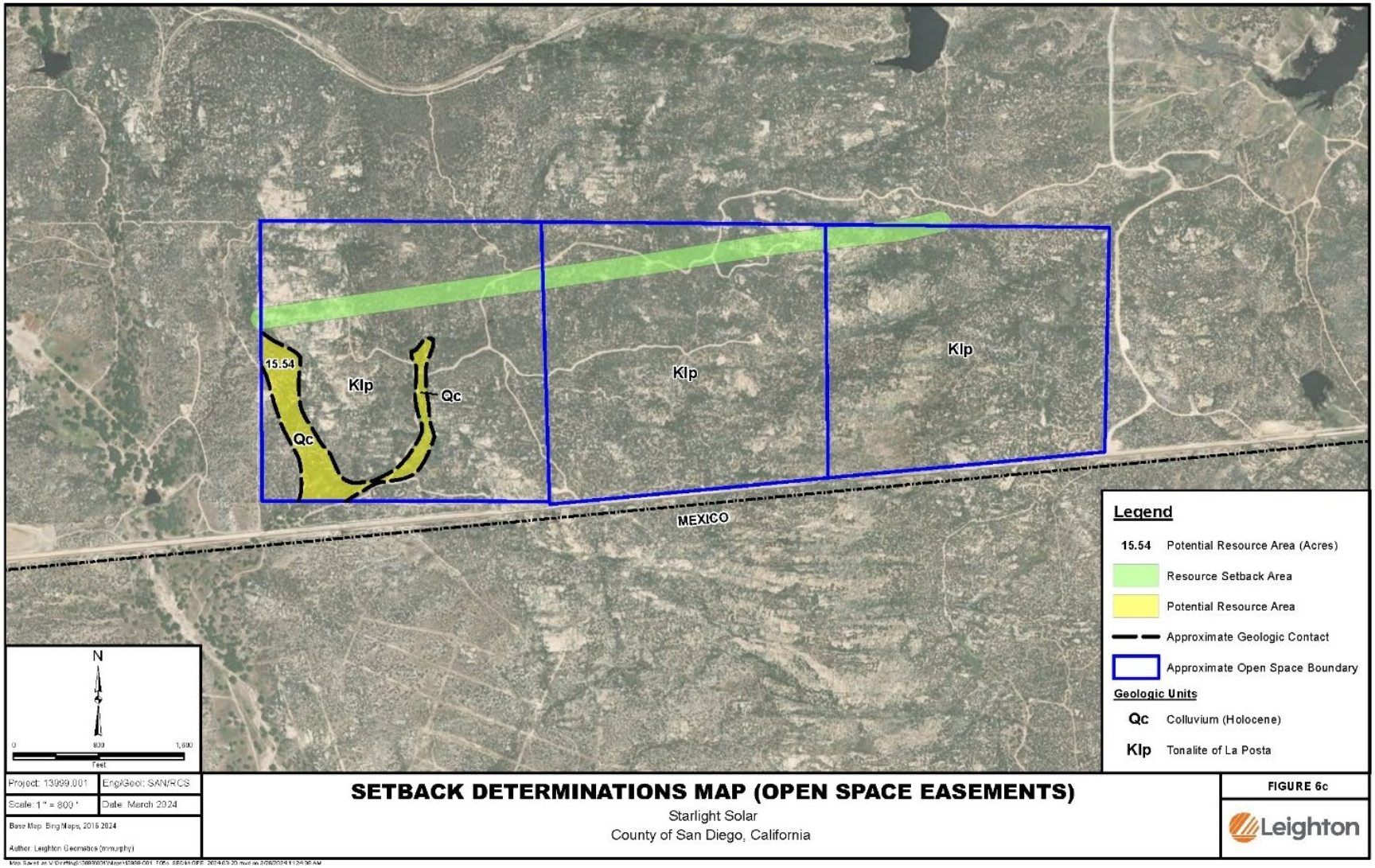

Figure 3.1.7-1. Setback Determinations for Open Space Easements

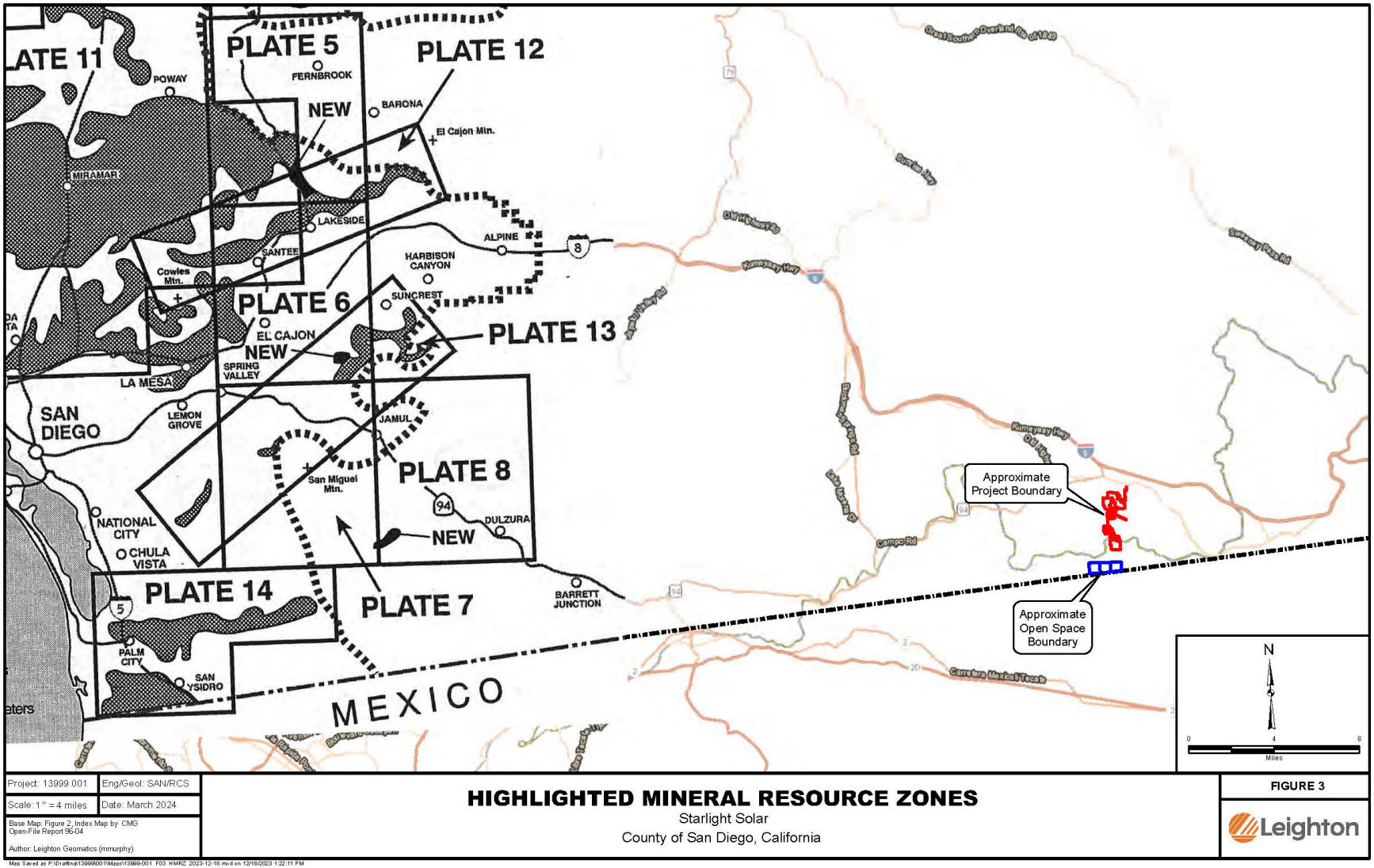

Figure 3.1.7-2. Highlighted Mineral Resource Zones

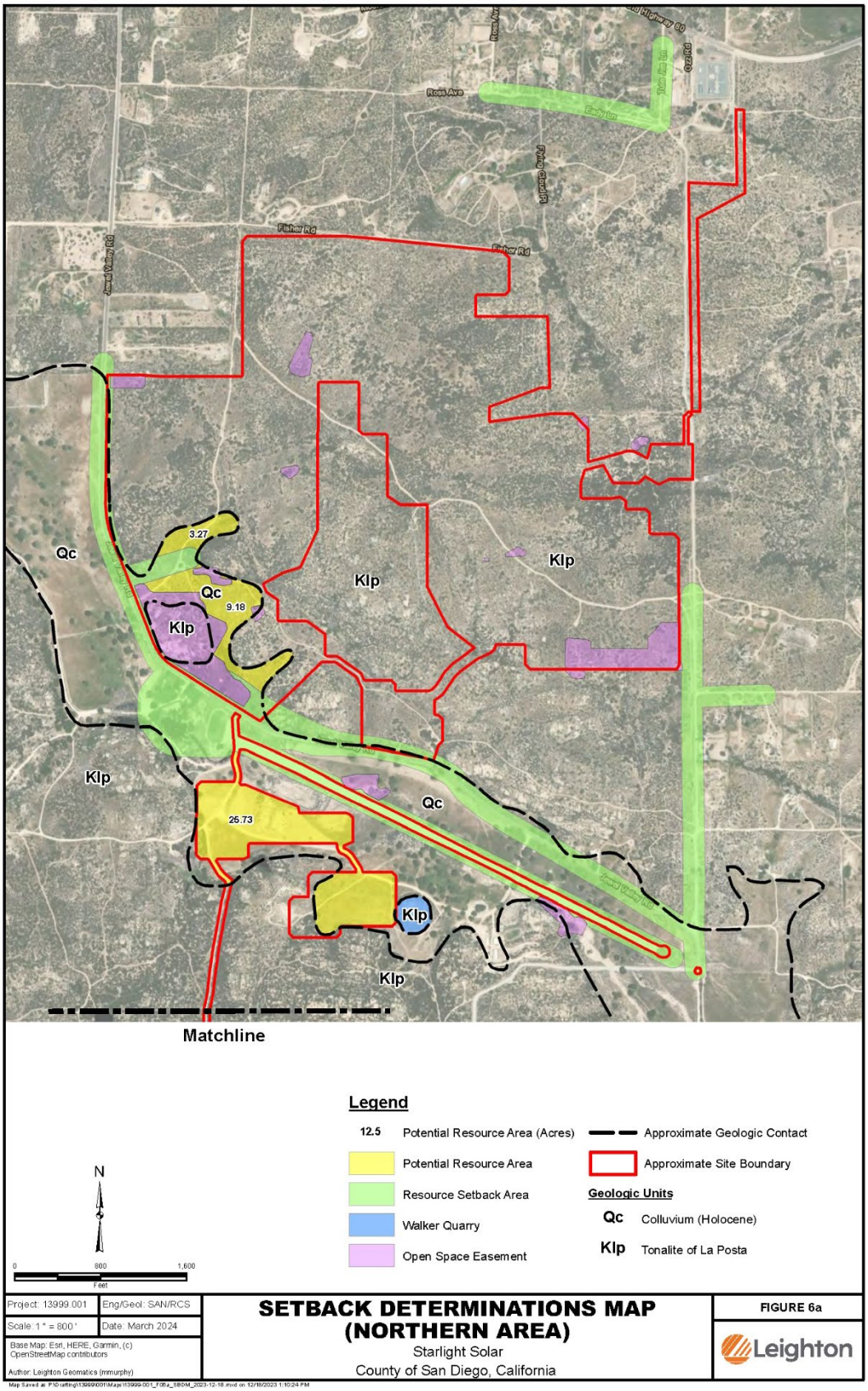

Figure 3.1.7-3. Setback Determinations for Northern Area

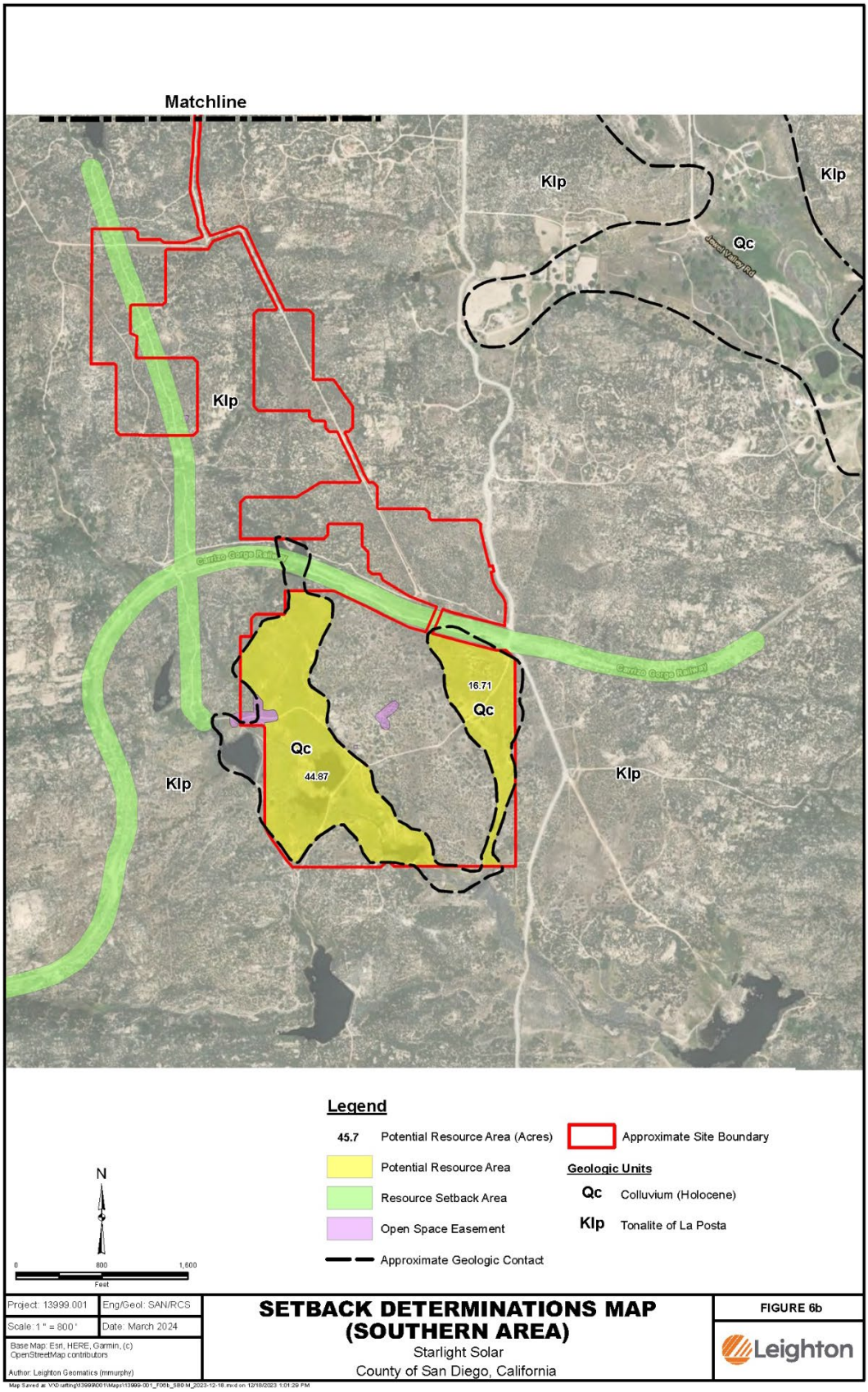

Figure 3.1.7-4. Setback Determinations for Southern Area

3.1.8 Public Services

This section of the Environmental Impact Report (EIR) discusses potential impacts to public services resulting from the implementation of the proposed project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical report prepared for the proposed project in accordance with the *County Guidelines for Determining Significance and Report Format and General Content Requirements – Wildland Fire and Fire Protection* (County of San Diego 2023):

- *Fire Protection Plan, Starlight Solar Project* (SWCA Environmental Consultants 2024) (Appendix L of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the impacts of waste generation by construction workers and the availability of emergency responders. These concerns are addressed in this section of the EIR where applicable and within Appendix L. Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

This section addresses fire protection, police services, schools, libraries, and medical facilities. An assessment of parks and recreation facilities is provided in Section 3.2, Effects Found Not Significant as Part of the Initial Study.

3.1.8.1 Existing Conditions

The project site consists of approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.93 mile north of the U.S.–Mexico border. The community of Boulevard is approximately 65 square miles and includes the communities of Manzanita, Tierra del Sol, and Live Oak Springs. Boulevard is a census-designated place with a population of approximately 410 people (U.S. Census Bureau 2023).

Fire Protection

The project site is in southeastern San Diego County, a rural area with few residents that is also within an area statutorily designated as a High Fire Hazard Severity Zone (FHSZ) in a State Responsibility Area (SRA) by California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2025a). SRAs are recognized by the California Board of Forestry and Fire Protection as areas where CAL FIRE is the primary emergency response agency responsible for fire suppression and prevention (CAL FIRE 2025b).

There are several fire stations within the project area, including CAL FIRE, San Diego County Fire Protection District (SDCFPD), and U.S. Forest Service fire stations. The Boulevard area is serviced by CAL FIRE's Boulevard Fire Station (Station 47), located approximately 1.2 miles north of the project site at 40080 Ribbonwood Road in the community of Boulevard. Fire emergencies that may occur at the project site would be primarily responded to by CAL FIRE Station 47, which is staffed by both volunteer reserve and career firefighters. Additional response would be available from the SDCFPD's Jacumba and Lake Moreno Stations (Stations 43 and 42, respectively) and CAL FIRE's Campo Station (Station 40); helicopter water drops may also be used, as appropriate. Other fire protection would be provided from mutual aid resources from throughout San Diego County and the state, when necessary.

Police Services

Police services in the proposed project area are provided by the San Diego County Sheriff's Department, California Highway Patrol (CHP), and U.S. Customs and Border Protection (CBP). The San Diego County

Sheriff's Department provides police and investigative services to unincorporated areas in San Diego County. The closest patrol office to the project site is the Boulevard office, which serves the communities of Boulevard and Jacumba. The Boulevard office is located at 39919 State Route 94 and is approximately 1.05 miles north of the project site. This office is a satellite office of the Pine Valley Sheriff's Substation, serving an area of more than 200 square miles and a population of over 2,000 (San Diego County Sheriff's Department 2025).

The CHP provides traffic law enforcement services throughout the state of California and is divided into eight divisions. The project site falls within the Border Division, which includes the southernmost part of California. The offices closest to the project site are the El Cajon office, located at 1722 East Main Street, approximately 38 miles west of the project site, and the El Centro office, located at 2331 U.S. Route 86 in Imperial, approximately 41 miles east of the project site (San Diego County Sheriff's Department 2025).

Due to the project site's proximity to the U.S.–Mexico border and highly populated communities near the border, the CBP maintains a strong presence in southeastern San Diego County. The closest U.S. Border Patrol station to the project site is the Boulevard Station at 2463 Ribbonwood Road, approximately 1.93 miles north of the project site. The Boulevard Station has an area of responsibility of approximately 10 linear border miles and an area of 500 square miles. This station is responsible for two eastbound tactical checkpoints (CBP 2020).

Schools

Public schools and educational facilities are administered by the San Diego County Board of Education and San Diego County Office of Education. The Mountain Empire Unified School District serves the project area and includes one early childhood education school, four elementary schools, two middle schools, one senior high school, and one alternative education high school. The closest elementary school is Clover Flat Elementary, 0.86 mile north of the project site, which had a total of 183 students in the 2020 to 2021 school year (EdData 2025). The closest middle school is Camp Lockett Middle School, 10.6 miles west of the project site, which had a total of 135 students in the 2020 to 2021 school year (EdData 2025). Mountain Empire High School, the only high school in the district, is 12.82 miles northwest of the project site and had a total of 460 students in the 2020 to 2021 school year (EdData 2025).

Other Public Services

Other public services include hospitals and library services. There are no major hospitals located in southeastern San Diego County. The closest major medical center is University of California San Diego Health in the city of Chula Vista, approximately 39 miles west of the project site.

The San Diego County Library System has multiple branches in the Mountain Empire Subregion. The Jacumba Branch is the closest branch to the project site, located at 44605 U.S. Route 80 (Old Highway 80) and 5.5 miles east of the project site. There is also a self-service library kiosk at 39923 Ribbonwood Road in Boulevard, approximately 1.3 miles north of the project site.

3.1.8.2 Regulatory Setting

Federal Regulations

There are no relevant federal regulations for public services.

State Regulations

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which includes regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The State Fire Marshal enforces these regulations and building standards in all state-owned buildings, state-occupied buildings, and state institutions throughout California.

California Fire Code

The California Fire Code (24 California Code of Regulations Chapter 9) contains regulations consistent with nationally recognized and accepted practices for safeguarding life and property from the hazards of fire and explosion; dangerous conditions arising from the storage, handing, and use of hazardous materials and devices; and hazardous conditions in the use or occupancy of buildings or premises. The California Fire Code also contains provisions to assist emergency response personnel.

Local Regulations

San Diego County General Plan

Updated (and adopted) in August 2011, the *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) guides future growth in the unincorporated areas of San Diego County and considers projected growth anticipated to occur within various communities (County of San Diego 2011a). The General Plan Land Use and Safety Elements contain policies that address public services in the county.

Land Use Element

The following policies apply to the proposed project (County of San Diego 2011b):

- **LU-12.1: Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.
- **LU-12.3 Infrastructure and Services Compatibility.** Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the co-location of infrastructure facilities, where appropriate.

Safety Element

The following policies apply to the proposed project (County of San Diego 2021):

- **S-4.2 Development in Hillsides and Canyons.** Require development located in wildland areas, near ridgelines, top of slopes, saddles, or other areas where the terrain or topography affects its susceptibility to wildfires to be located and designed to account for topography and reduce the increased risk from fires. Density reduction may be necessary to reduce fire hazards if the location and design of the development cannot reduce the threat effectively.

- **S-4.4 Service Availability.** Plan for development where fire and emergency services are available or planned.
- **S-4.6 Fire Protection Plans.** Ensure that development located within fire hazard areas implement measures in a Fire Protection Plan that reduce the risk of structural and human loss due to wildfire.
- **S-6.2 Fire Service Provider Agreements.** Encourage agreements between fire service providers to improve fire protection and to maximize service levels in a fair, efficient, and cost-effective manner.
- **S-7.3 Fire Protection Services for Development.** Require that new development demonstrate that adequate fire services can be provided that meet the minimum staffing of personnel and that meet the minimum travel times identified in Table S-3 (Travel Time Standards from Closest Fire Station).
- **S-7.4 Concurrency of Fire Protection Services.** Ensure that fire protection staffing, facilities, and equipment required to serve development are operating prior to, or in conjunction with, the development. Allow incremental growth to occur until a new facility can be supported by development.
- **S-14.1 New Law Enforcement Facilities.** Coordinate new law enforcement facilities and services with new development in ways that sustain the provision of comprehensive services at levels consistent with substantially similar areas of the County.
- **S-15.1 Sheriff Facility Locations.** Locate Sheriff facilities to best serve existing and planned development and the corresponding demand for services.
- **S-16.1 Vehicular Access to Development.** Require development to provide vehicular connections that reduce response times and facilitate access for law enforcement personnel, whenever feasible.

Mountain Empire Subregional Plan

The *Mountain Empire Subregional Plan, San Diego County General Plan* (Mountain Empire Subregional Plan) (County of San Diego 2016) establishes goals and policies to guide development within the areas of Jacumba, Tecate, Potrero, Boulevard, and Campo/Lake Morena, which together compose the Mountain Empire Subregion of southeastern San Diego County. The goals and policies of the Mountain Empire Subregional Plan are intended to be more specific than those of the County General Plan as they consider the distinct history, character, and identity of Mountain Empire communities.

The following policy in the Mountain Empire Subregional Plan, in Chapter 5, Public Facilities and Services, relates specifically to public services and the proposed project (County of San Diego 2016):

- **Policy 4.** Uses proposed for property adjacent to substations or transmission line rights-of-way should be reviewed for possible impacts to the power facilities and vice versa.

Boulevard Subregional Plan

The *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (Boulevard Subregional Plan) (County of San Diego 2013) provides specific policy guidance for over 55,000 acres, which includes the communities of Boulevard, Live Oak Springs, and Tierra del Sol. The Boulevard Subregional Plan has been reviewed related to the focus of this section of the EIR.

The following policies in the Boulevard Subregional Plan relate specifically to public services and the proposed project (County of San Diego 2013):

- **Policy LU 5.1.1**. Seek funding and promote efforts to provide the necessary facilities, infrastructure, and equipment to support the Boulevard Fire and Rescue Department.
- **Policy COS 2.1.1** Seek funding opportunities to acquire a site and construct a multi-purpose community center for Boulevard.

3.1.8.3 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

The County does not have guidance for determining significance to public services beyond using the checklist questions in the State California Environmental Quality Act (CEQA) Guidelines, Appendix G. Therefore, for the purposes of this EIR, Appendix G, Issue XV.a of the State CEQA Guidelines is used to assess the project's direct, indirect, and cumulative impacts.

A significant impact would result if the effects exceed the significance criteria described below:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    - Fire protection
    - Police protection
    - Schools
    - Parks
    - Other public facilities

As stated previously, an assessment of parks and recreation facilities is provided in Section 3.2, Effects Found Not Significant as Part of the Initial Study. The remaining issue areas are discussed below.

Analysis

Fire Protection

During construction, the likelihood of a construction accident or emergency incident that would require fire protection services at the project site may increase. This is due to increased activity at the project site (up to 210 workers per day during the peak construction period), higher amounts of fuel on-site, and a greater number of ignition sources on-site. Throughout the project's construction phase, appropriate fire safety measures would be used to reduce the risk of an emergency, such as clearing and grubbing and installing water tanks. The project would also be required to participate in Fire Service Agreements with the San Diego County Fire Authority (SDCFA), as mandated by the County. This funding would help maintain or improve fire service ratios and response times in the area.

During operation of the project, the site would be mostly unoccupied with the exception of occasional maintenance and inspections. Fire management zones would be maintained around all structures and access roads. The battery energy storage system (BESS) would follow all applicable building and fire codes, including the National Fire Protection Association's (NFPA) new Standard for Installation of Energy Storage Systems (NFPA 855). More information regarding fire hazards can be found in Section 3.1.5, Hazards and Hazardous Materials.

Travel Time from the Closest Fire Station

The project is located within different land use designations according to the Land Use Map appendix of the General Plan (County of San Diego 2011a). The proposed generation-tie (gen-tie) line and substation are in semi-rural residential land (Semi-Rural Residential [SR-10]) for some of the northern portion of the project; the remaining project footprint is in rural lands (Rural Lands 80 [RL-80]). As stated in County General Plan Safety Element Policy S-7.3, fire protection services must be provided that meet the minimum travel time standards identified in Table S-3 of the Safety Element (County of San Diego 2021), which are based on the Regional Category and/or land use designations. According to Table S-3 of the Safety Element, the project is classified as outlying (SR-10) with a travel time requirement of 20 minutes or less, and as desert/wilderness (RL-80) with a travel time requirement that allows more than 20 minutes. Multiple fire stations—CAL FIRE, SDCFPD, and the Bureau of Indian Affairs Campo Reservation—are within the 20-minute travel time standard for SR-10 and thus also meet the requirement for RL-80. SDCFPD Boulevard Station 47 is 1 mile from the project and within a 5-minute drive time. Coverage of the entire project area from Station 47 includes 83 acres under 5-minute response, 287 acres under 10 minutes, 145 acres under 20 minutes, and the remaining 54 acres outside the 20-minute response time frame. SDCFPD confirmed that SDCFPD fire services in the area would be able to support the project, as noted in Form PDS-399F, appended to the *Fire Protection Plan for the Starlight Solar Project* (see Appendix L). Therefore, the project meets travel time standards as outlined in Table S-3 of the Safety Element.

In addition to SDCFPD, the CAL FIRE White Star Station and the Campo Reservation Fire Protection District Station are both within 10-minute travel times, at 1.6 and 4.3 miles, respectively, and CAL FIRE Jacumba Station 43 is 5 miles from the project, with a travel time of 15 minutes. These stations adequately provide services to the gen-tie line and substation within the 20-minute travel time. Two additional fire stations—CAL FIRE Campo Station 40 and SDCFPD Lake Morena Station 42—are just outside the 15-minute travel time. These stations adequately serve the southern portion of the project with a desert/wilderness designation and a travel time greater than 20 minutes. These stations are staffed for incident response with adequate apparatus and firefighting equipment. Additional SDCFPD, CAL FIRE, and U.S. Forest Service fire stations are in the vicinity beyond the 20-minute travel time and could provide emergency services in case additional firefighting resources are needed, as well as aerial support if needed (see Appendix L).

For these reasons, the project would not result in the need for new or physically altered fire protection facilities. Therefore, there would not be adverse physical impacts associated with the provision of new or physically altered fire facilities and impacts would be **less than significant**.

Police Services

Construction of the project could increase the local population by up to 210 workers per day during the peak construction period of Phase II. Decommissioning of the project would also temporarily increase the number of workers on-site. The majority of construction and operational employees are anticipated to reside locally or regionally, commuting to the project site. Due to the temporary nature of construction and decommissioning, employees are not anticipated to relocate to the area and increase the local population, thus resulting in the need for additional police services. There would be no full-time employees on-site during operation. As previously discussed, there are two law enforcement stations within 2 miles of the project.

The project would be fenced along the entire facility boundary for security. The fencing would meet National Electrical Safety Code requirements for protective arrangements in electric supply stations. Fencing would be up to 7 feet in total height, with a 6-foot-high chain-link perimeter fence and 1 foot of three strands of barbed wire along the top. Signage in Spanish and English for electrical safety would be

placed along the perimeter of the solar facility on the fence, warning the public of the high voltage and the need to keep out. Low-level shielded light-emitting diode (LED) lights would be installed at all site access driveway entrances, inverters, substation, and BESS facilities. These lights would only be used if motion is detected. With these security measures implemented, the project would not be anticipated to pose a substantial danger to the local population nor generate a significant number of police response calls.

For these reasons, the project would not result in the need for additional police protective services or new or physically altered police facilities. Therefore, there would not be adverse physical impacts associated with the provision of new or physically altered police facilities and impacts would be **less than significant**.

Schools

The project does not include a residential component and would not result in a substantial permanent increase to the local population. Although the project could temporarily increase the local population by up to 210 workers per day during the peak construction period, it is not anticipated that these workers would permanently relocate their families to the area due to the temporary nature of this work. Once construction is complete, the project would not have any full-time personnel on-site, and the occasional operations and maintenance workers are not anticipated to relocate near the project site. For these reasons, the project would not increase the demand for school services in the area. Therefore, impacts resulting from new school facilities or expansions of existing school facilities would be **less than significant.**

Other Public Services

Construction of the project would temporarily increase the local population by up to 210 workers per day during the peak construction period. It is possible that these workers would visit local healthcare facilities or libraries; however, any increase would be temporary and not result in the need for new or expanded facilities or services. Therefore, the potential for environmental effects related to the provision of other public service facilities would be **less than significant**.

3.1.8.4 Cumulative Impact Analysis

The cumulative study area for public services generally includes southeastern San Diego County, where overlapping jurisdictions would provide services to the project and the nearby projects in the cumulative scenario. The cumulative impact analysis for public services was performed using the projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting.

Southeastern San Diego County comprises several small, rural communities dispersed across a vast geographic region. These communities are typically served by local volunteer and state fire departments as well as County law enforcement agencies. As the area continues to develop and the permanent population increases, the existing public service system faces heightened demand, which can affect the delivery of public services and facilities.

Cumulative, Fire Protection

The list of cumulative projects includes several existing and proposed wind and solar renewable energy projects, and public facilities improvement projects. These projects could increase the need for fire protection services in the area due to the rise in human activity, combustible materials, and ignition sources.

As previously discussed, the project would comply with the minimum travel times specified in Table S-3 of the Safety Element of the General Plan for fire protection services. The project would also participate in a Fire Service Agreement with the SDCFA, as mandated by the County. As such, any additional equipment

or personnel needed to service the project could be accommodated within the current capacity of fire service facilities in the surrounding area.

The construction phase of the proposed project may overlap with construction of other projects in the area. This overlap could temporarily increase the number of construction workers in the area, thereby raising the demand for fire protection services related to fire emergency response calls, potentially impacting service ratios or response times. However, the projects on the cumulative list would also participate in Fire Service Agreements with the SDCFA. These agreements ensure that each project contributes fair share funding to enhance the existing fire emergency response capabilities of the SDCFA. This funding would help maintain or improve fire service ratios and response times in the area and would address any increase in demand for fire protection services as a result of the cumulative projects.

Furthermore, the project and other and other development in the cumulative study area would not result in substantial permanent increases in population. Therefore, the impacts of the project, in addition to other past, present, and future projects **would not contribute to a cumulatively considerable impact** associated with the provision of new or physically altered fire facilities.

Cumulative, Police Services

The list of cumulative projects includes several existing and proposed wind and solar renewable energy projects, and public facilities improvement projects. These projects may contribute to temporary population growth in the area, which would minimally increase demand for law enforcement services.

As previously discussed, project construction could temporarily increase the local population by up to 210 workers per day during the peak construction period, and there would be no full-time employees on-site during operation. The majority of construction employees are anticipated to reside locally or regionally, commuting to the project site. Therefore, it is unlikely that any workers would relocate to the area and new or expanded police facilities or staff would not be required to maintain acceptable service ratios and response times. Additionally, the project site would be secured during construction, operation, and decommissioning.

The construction phase of the proposed project may overlap with construction of other projects in the area. However, the cumulative projects, like the proposed project, would not substantially impact law enforcement services, as they do not involve permanent or temporary housing components that would lead to direct increases in population. As such, the demands generated by the cumulative projects for local law enforcement services would be short-term and intermittent and would not require the construction or expansion of facilities.

As such, the project and other and other development in the cumulative study area would not result in substantial permanent increases in population and would not substantially increase demand for law enforcement services. Therefore, the impacts of the project, in addition to other past, present, and future projects **would not contribute to a cumulatively considerable impact** to police protection services.

Cumulative, Schools

The list of cumulative projects includes several existing and proposed wind and solar renewable energy projects, and public facilities improvement projects. None of these projects include a residential component or would directly result in an increase in school-age children in the area.

As previously discussed, project construction could temporarily increase the local population by up to 210 workers per day during the peak construction period, and there would be no full-time employees on-site during operation. The majority of construction employees are anticipated to reside locally or regionally,

commuting to the project site. Therefore, it is unlikely that any workers would relocate to the area with their families and that the number of school-age children in the area would increase.

The construction phase of the proposed project may overlap with construction of other projects in the area. However, the cumulative projects, like the proposed project, would not directly impact schools or result in an increase in school-age children in the area, and would not require the construction or expansion of facilities.

As such, the project and other and other development in the cumulative study area would not result in substantial permanent increases in population. Therefore, the impacts of the project, in addition to other past, present, and future projects **would not contribute to a cumulatively considerable impact** to schools.

Cumulative, Other Public Services

The list of cumulative projects includes several existing and proposed wind and solar renewable energy projects, and public facilities improvement projects. These projects may contribute to temporary population growth in the area, which would minimally increase demand for other public services, including libraries and healthcare facilities, in the area.

As previously discussed, project construction could temporarily increase the local population by up to 210 workers per day during the peak construction period, and there would be no full-time employees on-site during operation. The majority of construction employees are anticipated to reside locally or regionally, commuting to the project site. Therefore, it is unlikely that any workers would relocate to the area with their families and that demand on other public services in the area, including libraries and healthcare facilities, would increase.

The construction phase of the proposed project may overlap with construction of other projects in the area. However, the cumulative projects, like the proposed project, would not substantially impact other public services, as they do not involve permanent or temporary housing components that would lead to direct increases in population. As such, the demands generated by the cumulative projects for other public services would be short-term and intermittent and would not require the construction or expansion of facilities.

As such, the project and other development in the cumulative study area would not result in substantial permanent increases in population. Therefore, the impacts of the project, in addition to other past, present, and future projects, **would not contribute to a cumulatively considerable impact** to other public services, such as libraries and healthcare facilities.

3.1.8.5 Conclusion

Fire Protection

The project, within the SDCFPD jurisdiction, has one fire station within a 5-minute drive time, two stations within a 10-minute drive time, and an additional station within a 15-minute drive time, providing adequate firefighting resources in compliance with the Safety Element of the General Plan (County of San Diego 2021). The project would have a completed and approved County of San Diego PDS-399F Form showing requested provisions in a Fire Services Agreement that would ensure adequate fire response time, water supply, and Fuel Modification Zones are part of the project. Impacts would be **less than significant**.

Police Services

The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities. Impacts would be **less than significant**.

Schools

The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities. Impacts would be **less than significant**.

Other Public Services

The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered local healthcare facilities or libraries. Impacts would be **less than significant**.

3.1.9 Transportation and Traffic

This section of the Environmental Impact Report (EIR) evaluates impacts to the existing transportation network that may result directly or indirectly from the proposed project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project in accordance with the *County of San Diego Transportation Study Guidelines* (County of San Diego 2022), the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Transportation and Traffic* (County of San Diego 2009), and the *County of San Diego Guidelines for Determining Significance and Report Format and General Content Requirements – Wildland Fire and Fire Protection* (County of San Diego 2023a):

- *Starlight Solar Transportation Impact Assessment, County of San Diego, California* (Transportation Impact Assessment) (Kittelson & Associates, Inc. 2024) (Appendix K.1)
- *Starlight Solar Traffic Statement for Water Truck Change, County of San Diego, California* (Kittelson & Associates, Inc. 2025) (Appendix K.2)
- *Fire Protection Plan, Starlight Solar Project* (FPP) (SWCA Environmental Consultants 2024) (Appendix L)

Comments received in response to the Notice of Preparation (NOP) included concerns regarding the impact of construction traffic on local highways and potentially increased traffic during project operation. Preparation of a traffic impact study, a traffic control plan (TCP), and an encroachment permit for work within the California Department of Transportation (Caltrans) right-of-way (ROW) was also requested. These concerns are addressed in this section of the EIR where applicable and within the Transportation Impact Assessment (see Appendix K.1). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, Notice of Preparation, Initial Study, and Public Comments, of this EIR.

The County of San Diego's (County's) Transportation Study Guidelines provide thresholds of significance to evaluate transportation impacts related to a project's vehicle miles traveled (VMT) (County of San Diego 2022). According to the County's Transportation Study Guidelines, a project that meets at least one of the County's screening criteria would have a less-than-significant impact related to VMT due to project characteristics and/or location. According to the Transportation Impact Assessment, the project would meet the "small projects" VMT screening criteria, which exempts projects that generate or attract fewer than 110 vehicle trips per day from further VMT analysis (see Appendix K.1). However, on March 27, 2025, the Fourth District Court of Appeal upheld a writ petition claiming that two of the VMT screening thresholds included in the County's transportation guidelines were invalid, including the "small projects" screening criteria. The County has filed an appeal. Due to this court decision, the analysis pertaining to the "small projects" screening criteria and provided in the Transportation Impact Assessment for the proposed project was not included in this EIR section. As such, discussion of the "small projects" screening criteria is still included in the Transportation Impact Assessment, as the report was prepared prior to the Court of Appeal decision. The "small project" screening threshold is not used to determine transportation impacts under CEQA.

3.1.9.1 Existing Conditions

The project site is approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.93 mile north of the U.S.–Mexico border. The community of Boulevard is approximately 65 square miles and includes the communities of Manzanita, Tierra del Sol, and Live Oak

Springs. Boulevard is a census-designated place with a population of approximately 410 people (U.S. Census Bureau 2023).

Existing Freeway and Roadway Conditions

Regionally, the site is accessed by Interstate 8 (I-8). Local access to the project site would be provided by Ribbonwood Road/Jewel Valley Road, Old Highway 80, and Tule Jim Lane, as shown on Figure 1-2 in Section 1.0, Project Description, Location, and Environmental Setting. Tule Jim Lane is a private road and would only provide emergency access to the site. The following provides a description of the existing street system in the vicinity of the project site.

- **I-8:** This four-lane interstate freeway provides east-west traffic flow through the region, connecting San Diego and Imperial Counties and rural towns. I-8 has two traffic lanes in each direction with a posted speed limit of 65 miles per hour (mph). The section of I-8 in southeastern San Diego County is heavily used by recreational vehicles and container trucks and serves as a transportation route between California and Arizona. Freeway access to the project site is provided at the junction of State Route (SR) 94 and Old Highway 80. The annual average daily traffic volume on I-8 near the project site (at the junction of SR 94) is approximately 18,000 vehicles (Caltrans 2024a).
- **Old Highway 80:** The Mobility Element Network Appendix (County of San Diego 2014) of the *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011b) classifies Old Highway 80 as a 2.2E Light Collector from the southern boundary of the Central Mountain Subregion to SR 94. Within the traffic study area, Old Highway 80 is a two-lane undivided roadway. Bike lanes are provided in both directions.
- **State Route 94:** SR 94 is classified as a 2.1D Community Collector (Improvement Options on passing lanes) (County of San Diego 2014). Within the traffic study area, SR 94 is a two-lane undivided roadway. Bike lanes are provided in both directions.
- **Ribbonwood Road/Jewel Valley Road:** This two-lane undivided road is classified as a Light or Minor Collector (County of San Diego 2014) and runs north to south. Ribbonwood Road connects with I-8 at its northern end and turns into Jewel Valley Road at Old Highway 80, continuing until county maintenance ends near the Empire Ranch airstrip and project site. From there, Jewel Valley Road continues as a dirt road and ends near hiking areas southeast of the project site.
- **Avenue de Robles Verdes:** Avenue de Robles Verdes is classified as a local public road and has two travel lanes (one lane in each direction). It provides access to areas west of its intersection with State Route 94. The posted speed limit is 30 mph.
- **Tule Jim Lane:** Tule Jim Lane provides north-south connection from Old Highway 80 to the project site. It is an unpaved road that provides access to residences located to the north and east of the project site and is not anticipated to have project traffic.

Pedestrian and Bicycle Facilities

The Jewel Valley Road Pathway is planned as part of the County's community trails master plan (County of San Diego 2020); however, it would not be included in the proposed project. If completed, the pathway would be constructed along the section of Jewel Valley Road that intersects the project site, entirely within the existing County right-of-way (County of San Diego 2005). It is estimated to be 3.20 miles once completed and would primarily act as a north-south connector for other proposed and existing trails in the area. Pathways are defined as a non-motorized transportation facility located within a parkway or road ROW. They are intended to serve both circulation and recreation purposes and are an integral part of a functional trail system. There are no other existing or planned pedestrian or bicycle facilities in the project vicinity.

Transit and Rail Facilities

The San Diego Metropolitan Transit System (MTS) Bus Route 888 operates only on Mondays and Fridays and provides service between the Westfield Parkway Plaza in El Cajon and Jacumba Hot Springs. The nearest transit stops to the project site are along Old Highway 80, approximately 700 feet east of Jewel Valley Road and approximately 5,000 feet northwest of the project site (MTS 2024).

The project site includes an easement for the Desert Line of the San Diego & Arizona Eastern Railway, which originates in San Diego and terminates in El Centro. The project would span the railroad in the southern portion of the site. Construction of the railway was initiated in 1907; MTS has owned the Desert Line portion of the railway since 1979 (MTS 2013). Currently there is no service on the Desert Line due to concerns associated with the safety of the bridges and overpasses along the rail lines.

Planned Roadway Improvement Projects

There are no planned roadway improvement projects in the vicinity of the project site.

3.1.9.2 Regulatory Setting

Federal Regulations

Title 49 of Code of Federal Regulations 171–173, 177–178, 350–359, 397.9, and Appendices A through G address safety considerations for the transport of goods, materials, and substances and govern the transportation of hazardous materials, including types of materials and marking of the transportation vehicles.

State Regulations

California Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law and required the Governor's Office of Land Use and Climate Innovation (LCI), formerly known as the Office of Planning and Research (OPR), to amend the State California Environmental Quality Act (CEQA) Guidelines to provide an alternative to level of service (LOS) for evaluating transportation impacts. The updates to the State CEQA Guidelines required under SB 743 were approved on December 28, 2018. Under the new guidelines, LOS, or automobile delay, is not considered an environmental impact under CEQA, and VMT has been adopted as the most appropriate measure of transportation impacts under CEQA.

California Department of Transportation

Caltrans is responsible for planning, designing, building, operating, and maintaining California's State Highway System. Caltrans sets standards, policies, and strategic plans that aim to provide the safest transportation system in the nation for users and workers; maximize transportation system performance and accessibility; efficiently deliver quality transportation projects and services; preserve and enhance California's resources and assets; and promote quality service (Caltrans 2002).

In anticipation of SB 743 implementation, Caltrans released the draft *Transportation Impact Study Guide* (TISG) in February 2020 (Caltrans 2020). Per the 2020 TISG, Caltrans' primary review focus is now VMT, replacing LOS as the metric used in CEQA transportation analyses. The project site is located within Caltrans District 11. Caltrans recommends use of LCI's recommended thresholds for land use projects and recommends following the guidance on methods of VMT assessment found in LCI's Technical Advisory (OPR 2018). The Caltrans 2020 TISG and 2024 *Local Development Review (LDR) Safety Review*

Practitioners Guidance (Caltrans 2024b) replaced Caltrans' 2002 *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2002). Caltrans anticipates finalizing the second editions of its *Transportation Analysis Framework* and *Transportation Analysis Under CEQA* in 2025 (Caltrans 2025); these documents include updated guidance on the evaluation of transportation impacts on the State Highway System.

Local Regulations

County of San Diego Consolidated Fire Code

In collaboration with local fire protection districts, the County created the first Consolidated Fire Code in 2001, with the most recent update in 2023. The Consolidated Fire Code includes the County's and fire protection districts' amendments to the California Fire Code. Emergency ingress and egress are established by the County's Consolidated Fire Code, which are essential for both citizen evacuation and providing access for emergency vehicles during a fire or other emergency. Section 503 of the Consolidated Fire Code specifies minimum design standards for "Fire Apparatus Access Roads" and includes minimum road standards, secondary access requirements, and restrictions for gated roads (County of San Diego 2023b).

County of San Diego Department of Public Works – Permit Requirements

The County requires an encroachment permit for the placement of any structures on, over, or under County-owned or -maintained roads (County of San Diego 2024). Project construction could affect roadways owned and maintained by the County. Encroachment permits are issued by the Department of Public Works for the installation of any tower, pole, or structure of any kind within, over, or under a county road ROW. In addition to encroachment permits, the Department of Public Works requires a construction permit prior to initiation of any work within the County ROW, and a traffic control permit is typically required in concurrence with an encroachment and/or construction permit to ensure the safe travel of vehicles within a construction work zone.

San Diego Association of Governments 2021 Regional Plan

The San Diego Association of Governments (SANDAG) *2021 Regional Plan* (SANDAG 2021) provides a long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources. The plan is the result of years of planning, data analysis, and community engagement to reimagine the San Diego region with a transformative transportation system, a sustainable pattern of growth and development, and innovative demand and management strategies.

3.1.9.3 Analysis of Project Effects and Determination as to Significance

Guidelines For Determination of Significance

For the purpose of this EIR, Appendix G of the State CEQA Guidelines (14 California Code of Regulations 15000 et seq.) and the County's transportation study guidelines (County of San Diego 2022) apply to both the direct impact analysis and the cumulative impact analysis. Specifically, the project would be considered to have a significant impact related to transportation if it would:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- Conflict or be inconsistent with State CEQA Guidelines 15064.3(b).

- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

Additionally, the transportation study guidelines (County of San Diego 2022) identify requirements for conducting VMT analyses for projects in accordance with SB 743, Public Resources Code Section 21099 and the State CEQA Guidelines Section 15064.3(b). The Transportation Impact Assessment (see Appendix K.1) was prepared for the proposed project in accordance with these guidelines.

Program, Plan, Ordinance, or Policy Consistency

Guidelines for the Determination of Significance

A project would have a significant impact if it would:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Analysis

The County's General Plan Mobility Element is discussed in Section 3.1.6, Land Use and Planning, of this EIR.

During the construction and decommissioning phases of the project, there may be construction work or construction-related traffic that could temporarily impede movement of vehicles, transit, bicyclists and/or pedestrians. Project design features **PDF-TR-1** (Traffic Control Plan), **PDF-TR-2** (Preparation of Construction Notification Plan), and **PDF-TR-3** (Notification of Property Owners and Provision of Access), discussed in Section 3.1.9.5, Project Design Features, will be prepared to ensure the safe and efficient movement of traffic through the project area and proper notification to local residents/motorists of construction activities that could affect daily travel through the area. The TCP (**PDF-TR-1**) would be prepared in consultation with the County and would contain information regarding noticing, signage, policy guidelines, roadway characteristics, and the limitation of lane closures to off-peak hours. Additionally, a single point of contact will be established using the County's Private Development Construction Inspection process, which ensures construction work in San Diego County is completed per approved plans and state and county requirements to assure safe communities and roads are provided for the public (County of San Diego 2025).

Beyond the proposed Jewel Valley Road Pathway along Jewel Valley Road, there are no other pedestrian or bicycle facilities in the project area. If construction or operation of the pathway overlapped with project construction, **PDF-TR-1** and **PDF-TR-2** would require coordination to ensure no disruption would occur. Otherwise, the project would not affect pedestrian or bicycle facilities.

Due to the nature of the project, the trips generated during the construction and future decommissioning phases would be short-term and temporary, and **PDF-TR-1**, **PDF-TR-2**, and **PDF-TR-3** will be implemented by the Applicant to avoid significant impacts of temporary construction trips. The project would be unoccupied and remotely operated, therefore trips generated during operation would be nominal. Therefore, the project would not have the potential to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, the impact would be **less than significant.**

Vehicle Miles Traveled

Guidelines for the Determination of Significance

Pursuant to Appendix G of the State CEQA Guidelines, a project would have a significant impact on the environment if it would

- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

State CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. Section 15064.3(b) is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The project would involve construction that would generate temporary construction-related traffic and nominal operations traffic. Section 15064.3(b)(3) recognizes that lead agencies may not be able to quantitatively estimate VMT for every project type and states that, for many projects, a qualitative analysis of construction traffic may be appropriate.

The County's transportation study guidelines provide thresholds of significance to evaluate transportation impacts related to a project's VMT (County of San Diego 2022). The *Technical Advisory on Evaluating Transportation Impacts in CEQA* also provides guidance for assessing the VMT impacts of land use projects (OPR 2018). As previously discussed, on March 27, 2025, a court decision found that two of the VMT screening thresholds included in the County's transportation guidelines, including the "small projects" thresholds, were invalid. As such, this analysis relies on the significance thresholds recommended by the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018). This guidance states "[p]rojects generating less than 110 daily vehicle trips (trips are based on the number of vehicle trips calculated using national [Institute of Transportation Engineers] ITE trip generation rates with any alternative modes/location-based adjustments are applied) may be presumed to have a less than significant impact absent substantial evidence to the contrary" (OPR 2018).

Analysis

Notwithstanding the court decision and pending appeal described above, according to the County's transportation study guidelines, a project that meets at least one of the County's screening criteria, listed below, would have a less-than-significant impact to VMT impact due to project characteristics and/or location. Project type screening uses the following five screening criteria that assume the project to have a less-than-significant impact to VMT:

- Small projects: Projects that generate or attract fewer than 110 vehicle trips per day
- Small service/retail projects: Projects that are a service or retail use with 50,000 square feet gross floor area or less
- Mixed-use projects: Projects screened out based on their location on the SANDAG screening map for VMT/service population
- Local-serving retail/public facility/recreational: Projects that are locally serving and are either a retail or public service or recreational land use
- Redevelopment projects: Projects that replace an existing VMT-generating land use and do not result in a net overall increase or projects that redevelop an affordable housing site with all proposed units as affordable housing units

Additional screening criteria related to project location are also included if the project type is not screened out. These include considerations of VMT/resident, VMT/employee, and VMT/service population, based

on the County screening maps and the project location and type. However, this level of screening was not required of the proposed project, as the project would not result in new residents or permanent employees and would not generate a daily service population.

As the outcome of the County appeal on the Fourth District Court decision is uncertain as of the date of this analysis, it is important to note that a review of the County's transportation study guidelines indicates that the project meets the VMT screening criteria for small projects. The project would generate nominal daily primary vehicle trips once operational. Construction traffic is not considered for VMT analyses due to its temporary effect on the roadway network. Therefore, when applying the County's transportation study guidelines, the project is presumed to have a **less-than-significant** impact on VMT and is exempt from detailed VMT analysis.

In the event that the County's transportation study guidelines are not upheld as a result of the Fourth District Court decision, the project is also evaluated against significance thresholds recommended by the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018). This analysis is provided below.

Construction and Decommissioning

Construction and decommissioning traffic is not typically considered for VMT analyses due to its temporary effect on the roadway network. Once construction is complete, the VMT from construction-related traffic would cease, and VMT would return to pre-project levels. The County transportation study guidelines do not require a quantitative VMT analysis for construction traffic, and neither LCI nor the County has specified models or methods to estimate VMT or VMT thresholds of significance for construction traffic, as it is a temporary condition on the network.

Over the construction and decommissioning periods, the project would require truckloads of construction materials and water for dust suppression and would also generate trips from the arrival and departure of construction workers. During Phase I of construction, the project would generate 90 round-trip worker vehicle trips, 164 round-trip heavy-duty truck trips, and four round-trip water truck trips per day, on average. During Phase II, the project would generate 225 round-trip worker vehicle trips, 466 round trip heavy-duty truck trips, and eight round-trip water truck trips per day, on average (see Appendix K.1 and Appendix K.2).

The project would use a just-in-time delivery system with supplies and components delivered on a schedule to minimize on-site storage needs. Once construction is completed, the construction-related traffic would stop, and traffic would return to preconstruction conditions. Activities associated with decommissioning would not include substantial earthmoving, such as grading, and are not expected to require significant numbers of truck trips. As such, daily truck trips during decommissioning would be expected to be similar or less than the numbers of trips required during construction. Therefore, the proposed project's construction and decommissioning VMT would not conflict with or be inconsistent with State CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3), and impacts would be **less than significant.**

Operations

After the completion of construction, the project would not be accessible to the public and access would be infrequent and limited to authorized personnel. The utility-scale solar and energy storage facility would be remotely controlled, eliminating the need for daily on-site employees. Operationally, the project would generate occasional trips related to site and photovoltaic (PV) panel maintenance. As a part of routine maintenance, the PV solar panels would be washed once per year, and security personnel may access the site to respond to alarms and fence breaches, if necessary.

For operational impacts, LCI's guidance states "[p]rojects generating less than 110 daily vehicle trips (trips are based on the number of vehicle trips calculated using national [Institute of Transportation Engineer] ITE trip generation rates with any alternative modes/location-based adjustments are applied) may be presumed to have a less than significant impact absent substantial evidence to the contrary" (OPR 2018). According to the *ITE Trip Generation Manual, 11th Edition,* utility projects are expected to generate 3.85 daily trips per employee (ITE 2021). As the proposed project would not include permanent employees, the project would not be expected to generate new daily vehicle trips during typical operations. While routine maintenance, annual panel washing, and site visits from security personnel would generate some trips, these trips would not occur on a daily basis and would therefore fall below LCI's 110 daily vehicle trip threshold.

Because of the minimal trips associated with operation, the proposed project would not generate a significant amount of VMT and would not conflict with or be inconsistent with State CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3). Therefore, as trips generated during operation would be nominal, the project would have a **less-than-significant** impact related to VMT.

Hazards

Guidelines for the Determination of Significance

Pursuant to Appendix G of the State CEQA Guidelines, a project would have a significant impact on the environment if it would

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

The determination of significant hazards to an existing transportation design feature shall be on a case by-case basis, considering the following factors (County of San Diego 2009):

- Design features or physical configurations of an access road that may adversely affect the safe transport of vehicles along the roadway;
- The percentage or magnitude of increased traffic on the road that would affect the safety of the roadway;
- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers that may result in vehicle conflicts with other vehicles or stationary objects;
- Conformance of existing and proposed roads to the requirements of the private or public road standards, as applicable.

The determination of significant hazards to pedestrians or bicyclists shall be on a case by-case basis, considering the following factors (County of San Diego 2009):

- Design features/physical configurations on a road segment or at an intersection that may adversely affect the visibility of pedestrians or bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.
- The amount of pedestrian activity at the project access points that may adversely affect pedestrian safety.
- The preclusion or substantial hindrance of the provision of a planned bike lane or pedestrian facility on a roadway adjacent to the project site.
- The percentage or magnitude of increased traffic on the road due to the proposed project that may adversely affect pedestrian and bicycle safety.

- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers that may result in vehicle/pedestrian, vehicle/bicycle conflicts.
- Conformance of existing and proposed roads to the requirements of the private or public road standards, as applicable. The potential for a substantial increase in pedestrian or bicycle activity without the presence of adequate facilities.

Analysis

Potential road hazards can occur due to a design feature or physical configuration of existing or proposed roads that can adversely affect the safe transport of vehicles along a roadway. The project does not propose any changes to the roadway design of Jewel Valley Road, Tule Jim Lane, or Old Highway 80. There are currently no known hazards, and the project would not increase hazards along these existing roadways.

Project-related traffic would use I-8 for regional travel and Ribbonwood Road/Jewel Valley Road and Old Highway 80 for accessing the project site. It is anticipated that during peak construction, approximately 225 workers would be working across the site. Workers would arrive and depart between 6:00 a.m. and 4:00 p.m., for a 7:00 a.m. to 3:00 p.m. workday during the construction period. A typical construction day would generate approximately 100 to 200 trucks, which would include the transportation of parts; movement of heavy equipment; and use of dump trucks, concrete trucks, water trucks, and subcontractor trucks.

The project would involve construction of access roads and improvements to provide access and circulation within the project site. Adequate sight distance would be required at all new roadways to the satisfaction of the County Director of the Department of Public Works, and all improvements would be constructed according to County private road standards (County of San Diego 2012). As discussed in the Transportation Impact Assessment (see Appendix K.1), the project included a site access analysis which reviewed site access, project queues, and operational needs to determine if the project requires additional considerations to operate functionally. The three proposed new site access points include a minimum of 300 feet of unobstructed sight distance in both directions, in compliance with County standards. The operational analysis found that delays would be minimal at the site access locations and that turn lanes along Jewel Valley Road would not be needed. This is primarily due to the very low volumes on this section of Jewel Valley Road (see Appendix K.1).

The project would not introduce curves, slopes, walls, or other barriers that would create potential conflicts between vehicles or potential conflicts between vehicles and stationary objects. Access road design would comply with County private road standards and allow passage of construction vehicles, including oversized trucks. Further, all intersections would operate at acceptable levels during both the morning and afternoon peak periods during peak construction traffic.

To ensure that construction-related activities and traffic do not cause a hazardous condition, the Applicant will prepare a TCP as specified by **PDF-TR-1**. The TCP would address construction traffic on both regional and local roads in the project area. The inclusion of **PDF-TR-1** would ensure that trucks, or any other construction equipment, would not create a safety hazard and/or be a temporary inconvenience to travelers along regional and local roadways. The County-required TCP would address the increased traffic anticipated on local area roadways during project construction and would contain measures for construction noticing, signage, and policy guidelines. For the State Highway System, Caltrans requires a TCP to be submitted to District 11's Transportation Permits Issuance Branch at least 30 days prior to the start of any construction. In addition, **PDF-TR-2** and **PDF-TR-3** would ensure that property owners and others who may be affected during project construction would be notified to address potential conflicts that may arise between construction traffic and day-to-day traffic on local area roadways, ensuring the safe and efficient movement of traffic through the project area. Therefore, impacts would be **less than significant**.

Emergency Access

Guidelines for the Determination of Significance

Pursuant to Appendix G of the State CEQA Guidelines, a project would have a significant impact on traffic and transportation if the project would result if the project would

- Result in inadequate emergency access.

Analysis

During construction and decommissioning, as part of **PDF-TR-1** (TCP), the Applicant will establish procedures for coordinating with local emergency response agencies to ensure the dissemination of information regarding emergency response vehicle routes affected by construction activities. This would ensure that the project would not result in inadequate emergency access during construction.

The project would be autonomous, and no person would be on-site during project operation, except for routine maintenance. Panel washing would occur up to once per year. Emergency access to the project site would be provided via Jewel Valley Road and Tule Jim Lane. Jewel Valley Road is paved in certain segments and is otherwise a flat, well-maintained dirt road. Tule Jim Lane is also a well-maintained dirt road. Both roads have widths in all areas that can accommodate two-way traffic of emergency vehicles and connect to Old Highway 80 in the community of Boulevard. Each site entrance would feature a manual swing gate and a sign with a lighted directory map and contact information. All entrance gates would feature a Knox Box (a secure key box which stores keys and access cards for fire and emergency services) to allow ease of access for emergency service providers. Parking is proposed near the battery storage areas and near the existing Boulevard substation. The project would include dual-purpose internal fire response access and service access roads. In accordance with Section 503 of the San Diego County Fire Code, the perimeter internal access within the fenced solar facility would be constructed to a minimum improved width of 24 feet (County of San Diego 2023b). The interior on-site vehicle access roads would be constructed to a minimum improved width of 20 feet. All internal access would be designed to provide a minimum inner turning radius of 28 feet, would be graded and maintained to support the imposed loads of fire apparatus (not less than 75,000 pounds), and would be designed and maintained to provide all-weather driving capabilities. All internal access road surfaces would be consistent with the Caltrans Class II standard construction specifications and would be composed of permeable decomposed granite.

The County guidelines also require the preparation of a FPP for any project in an area designated as a High or Very High Fire Hazard Severity Zone (FHSZ) by the California Department of Forestry and Fire Protection (CAL FIRE). As the project is in a High FHSZ, the FPP (see Appendix L) was prepared and would be evaluated concurrently with this EIR. The FPP was accepted by the San Diego County Fire Protection District (SDCFPD) in February 2024. The County's General Plan designates land uses within the project site as Rural Lands 80 (RL-80) and Semi-Rural Residential (SR-10) (County of San Diego 2011b). Policy S-7.3 of the Safety Element of the General Plan requires that new development demonstrate that fire services can be provided within minimum travel times (County of San Diego 2021). The project site is classified as outlying (SR-10) with a travel time standard of 20 minutes and as desert/wilderness (RL-80) with a travel time standard greater than 20 minutes. The project site is within SDCFPD jurisdiction and has one fire station within a 5-minute drive time, two stations within a 10-minute drive time, and an additional station within a 15-minute drive time. Multiple fire stations—CAL FIRE, SDCFPD, and the Bureau of Indian Affairs Campo Reservation—are within the 20-minute travel time standard for SR-10 and thus also meet the requirement for RL-80 (see Appendix L). Section 2.7, Wildfire, presents further analysis related to the FPP prepared for the project.

As stated in Section 3.1.5, Hazards and Hazardous Materials, emergency response coordinated by the County fire and police protection would remain the same as under existing conditions because the response time and distance would remain the same. The project site is accounted for in the County's *Multi-Jurisdictional Hazard Mitigation Plan* (County of San Diego 2023c) and in the established emergency response procedures, evacuation routes, and mutual aid agreements for emergency assistance. The proposed project would not result in inadequate emergency access, and impacts would be **less than significant**.

3.1.9.4 Cumulative Impact Analysis

The cumulative impact analysis for transportation was performed using the projects listed in Table 1-4, in Chapter 1.0, Project Description, Location, and Environmental Setting.

Cumulative, Program, Plan, Ordinance, or Policy Consistency

Each cumulative project would be separately reviewed and approved by the County, including a review of consistency with applicable policies. Similar to the proposed project, cumulative projects would also be required to develop a TCP. Coordination of these plans would ensure construction activities of concurrent cumulative projects, and associated hauling activities (if any) would be managed in collaboration with one another and the project. Thus, the project, in combination with cumulative projects, **would not result in a cumulatively considerable impact** regarding conflict with any applicable programs, plans, policies, and ordinances.

Cumulative, Vehicle Miles Traveled

Similar to the proposed project, any cumulative project that would be subject to environmental review would be required to evaluate VMT on a project-by-project basis. If the cumulative project were determined to have potentially significant VMT impacts, it would be required to include appropriate mitigation measures to reduce VMT impacts to a less-than-significant level to the extent feasible. As previously discussed, construction traffic is not considered for VMT analyses due to its temporary effect on the roadway network. Further, the project would generate nominal daily primary vehicle trips once operational. Other projects in the area are similar in nature, including solar and wind development projects, which would also generate nominal vehicle trips due to the minimal amount of workers required for daily operations. The operation of the project would generate fewer than 110 daily vehicle trips and would thereby meet the County's VMT screening criteria for small projects, as well as LCI's 110 daily vehicle trip threshold. Thus, the project, in combination with cumulative projects, **would not result in a cumulatively considerable impact** regarding VMT.

Cumulative, Hazards

With regard to design hazards, the proposed project would not result in a significant impact due to project design features **PDF-TR-1**, **PDF-TR-2**, and **PDF-TR-3**. Each cumulative project would be reviewed by the County to ensure compliance with applicable County requirements relative to the provision of safe access for vehicles, pedestrians, and bicyclists. Furthermore, since modifications to access and circulation plans are largely confined to the project site and immediate surrounding area, a combination of impacts with other cumulative projects that could lead to cumulative impacts is not expected. Thus, the project, in combination with cumulative projects, **would not result in a cumulatively considerable impact** regarding hazardous conditions due to design features.

Cumulative, Emergency Access

As part of **PDF-TR-1**, the Applicant will establish procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities. The project site and the surrounding area are developed with existing roadway networks and existing routes for emergency vehicles and evacuation. Similar to the proposed project, cumulative projects are required to prepare a fire protection plan, which would include construction traffic measures to ensure adequate emergency access is maintained in and around the cumulative project sites throughout construction activities (see Appendix L). Coordination of these plans would ensure construction activities of concurrent cumulative projects and associated activities are managed in collaboration with one another and the project. Thus, the project, in combination with cumulative projects, **would not result in a cumulatively considerable impact** regarding emergency access.

3.1.9.5 Project Design Features

All transportation impacts resulting from implementation of the project were determined to be less than significant; therefore, no mitigation measures are required. Regardless, the Applicant has identified and committed to including the following project design features as part of the project to ensure that impacts during construction and decommissioning would be less than significant.

PDF-TR-1 **Traffic Control Plan.** Prior to obtaining a grading permit from the County of San Diego, the Applicant will implement a construction Traffic Control Plan (TCP) that includes the following measures:

1. Temporary traffic control devices in accordance with the California Department of Transportation's (Caltrans) California Manual on Uniform Traffic Control Device to identify locations/sections where construction is ongoing. This may include slow-moving-vehicle warning signs, signage to warn of merging trucks, barriers for separating construction and non-construction traffic, use of traffic control flaggers, and any additional measures required for the sole convenience of safely passing non-construction traffic (including transit, bicyclists, and pedestrians) through and around construction areas.
2. Coordination with Caltrans to secure the necessary encroachment and trip permits necessary for specialized haul trucks. Also, any excessive height/length vehicles should use pilot car services to provide safe over-the-road operations and overhead height warnings, if necessary.
3. Notification of the California Highway Patrol, if necessary, to facilitate slowing freeway traffic to ensure safe access for motorists.
4. Coordination with Caltrans, California Highway Patrol, and County officials, including the Sheriff's department. For the State Highway System, Caltrans requires a TCP to be submitted to District 11's Transportation Permits Issuance Branch at least 30 days prior to the start of any construction.
5. Employment of a contract transport company that will be responsible for surveying the route to determine how turns on existing roads will be accomplished and ensuring that is reflected in the TCP.
6. Establishment of procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities.

PDF-TR-2 **Preparation of Construction Notification Plan.** Forty-five days prior to construction or decommissioning activities, the Applicant will prepare and submit a construction notification plan to the appropriate land use jurisdiction agency for approval. The construction notification plan will identify the procedures that will be used to inform property owners of the location and duration of construction, identify approvals that will be needed prior to posting or publication of construction notices, and include text of proposed public notices and advertisements. The construction notification plan will address at a minimum the following components:

1. *Public notice mailer*. A public notice mailer will be prepared and mailed no fewer than 15 days prior to construction. The notice will identify construction activities that will restrict, block, remove parking, or require a detour to access existing residential properties. The notice will state the type of construction activities that will be conducted and the location and duration of construction, including all helicopter activities. The Applicant or construction contractor will mail the notice to all residents or property owners within 1,000 feet of project components. If construction delays of more than 7 days occur, an additional notice will be prepared and distributed.
2. *Public liaison person and toll-free information hotline*. The Applicant will identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person will be included in notices distributed to the public. The Applicant will also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for handling and responding to calls will be addressed in the construction notification plan.

PDF-TR-3 **Notification of Property Owners and Provision of Access.** To facilitate access to properties that might be obstructed by construction or decommissioning activities, the Applicant will notify property owners and tenants at least 24 hours in advance of construction activities and will provide alternative access if required.

3.1.9.6 Conclusion

Program, Plan, Ordinance, or Policy Consistency

Project trips during construction would be temporary. During operations, the trips would be minimal. Cumulative energy projects in the area would also generate trips during construction that would be temporary and short-term. As a uniformly applied development standard, the Applicant is required by the County to develop a TCP to provide safe and efficient traffic flow in the area and on the project site prior to and during construction. The TCP would be prepared in consultation with the County and would contain project-specific measures for noticing, signage, policy guidelines, and the limitation of lane closures to off-peak hours. The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, impacts would be **less than significant**.

Vehicle Miles Traveled

Construction-related VMT would be temporary and short-term. Once construction is completed, the VMT from construction-related traffic would cease and the VMT would return to pre-project levels.

Operationally, the project would generate occasional trips related to site and PV panel maintenance. However, these trips would be infrequent would result in a nominal increase in VMT. The operation of the project would generate a less than significant number of daily trips (i.e., less than 110 daily vehicle trips). As such, the proposed project would not conflict with or be inconsistent with State CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3), and impacts would be **less than significant**.

Hazards

The cumulative projects in the project area would comply with existing regulations for grading and building permits from the County, provide for traffic control and safety, and address design hazards for road construction. Each cumulative project would use different access roads than those proposed for the project. All proposed driveways would be constructed to meet the requirements of the private or public road standards. Lastly, with implementation of project design features **PDF-TR-1**, **PDF-TR-2**, and **PDF-TR-3**, construction of the project would not significantly increase hazards during construction. Therefore, hazardous conditions due to design features would not occur and impacts would be **less than significant**.

Emergency Access

The project would establish procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response and vehicle routes affected by construction activities. The project would include fire and emergency access and circulation throughout the site. The FPP (see Appendix L) would be used to reduce the risk of wildfire on the site during operations and construction and to improve emergency response. Further, the project site is accounted for in the County's *Multi-Jurisdictional Hazard Mitigation Plan* and in the established emergency response procedures, evacuation routes, and mutual aid agreements for emergency assistance. Lastly, as part of **PDF-TR-1**, the Applicant will establish procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities. Therefore, the proposed project would not result in inadequate emergency access, and impacts would be **less than significant**.

3.1.10 Utilities and Service Systems

This section of the Environmental Impact Report (EIR) discusses potential impacts to utilities and service systems resulting from the implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project in accordance with the *County of San Diego Guidelines for Determining Significance – Hydrology and Water Quality* (County of San Diego 2021a), *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2023a), and *County of San Diego Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2023b):

- *Preliminary Drainage Study, Starlight Solar* (Michael Baker International 2024b; Appendix G.1 of this EIR)
- *Groundwater Monitoring and Mitigation Plan for the Starlight Solar Project* (INTERA Incorporated [INTERA] 2025c; Appendix G.2 of this EIR)
- County of San Diego Stormwater Quality Management Plan (SWQMP) For Standard Projects (Standard SWQMP), prepared for the Starlight Solar Project, March 15, 2024 (Appendix G.3 of this EIR)
- *Revised Construction Water, Operations and Maintenance and Decommissioning Water Demand Estimate – Starlight Solar* (INTERA 2025a; Appendix G.4 of this EIR)
- *Updated Draft Groundwater Resources Investigation Report – Flat Creek Watershed Analysis* (INTERA 2025b; Appendix G.5 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the project's water demand. These concerns are addressed in this section of the EIR where applicable. Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.10.1 Existing Conditions

The project site consists of approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.93 mile north of the U.S.–Mexico border. The community of Boulevard is approximately 65 square miles and includes the communities of Manzanita, Tierra del Sol, and Live Oak Springs. Boulevard is a census-designated place with a population of approximately 410 people (U.S. Census Bureau 2023). The community of Boulevard is located in the Mountain Empire Subregion of southeastern San Diego County, an approximately 285,000-acre, largely rural, low-density population area that generally lacks substantial utility infrastructure, such as water and wastewater distribution and collection systems and solid waste disposal.

Water

The project site lies outside of the service areas of the Metropolitan Water District, San Diego County Water Authority (SDCWA), and SDCWA Member Water Districts. Approximately 65% of the unincorporated areas under the County of San Diego's (County's) jurisdiction is dependent on groundwater resources, which provide the only source of water for over 41,000 residents (County of San Diego 2011a). Water service in the project vicinity and on the project site consists exclusively of groundwater wells—either private, tribal, state, federal, or part of small community water districts.

The project proposes to use groundwater imported from the Jacumba Community Services District (JCSD). The JCSD is one of 14 groundwater-dependent water districts that serve the unincorporated areas of San Diego County without the ability to receive imported water directly from SDCWA. These districts rely on groundwater as the only source for their water supply. The JCSD provides water service to the small, rural community of Jacumba, located between Interstate 8 and the U.S.–Mexico international border. JCSD distributes groundwater to 239 residential and commercial connections over a service area of 435 acres (see Appendix G.5). One hundred percent of the JCSD water supply comes from groundwater from the Jacumba Valley Groundwater Basin (California Department of Water Resources [DWR] Basin No. 7-47). Table 3.1.10-1 shows the groundwater sources and total water demand within the Jacumba Valley Groundwater Basin.

Table 3.1.10-1. Groundwater Sources and Total Water Demand in the Jacumba Valley Groundwater Basin

Groundwater Extraction Source	Well Name	Total Water Demand (af/yr)
Jacumba Valley Ranch Water Company	Well Km	5[a]
Jacumba Community Services District (JCSD) (potable)	Well 4	0[b]
JCSD (nonpotable)	Highland Center Well, Park Well	53.6[c]
Potential domestic wells	Private domestic wells	3[d]
Total Water Demand		**61.6**

Source: INTERA (2025b) (see Appendix G.5)

Notes:

af/yr = acre-feet per year

[a] Jacumba Valley Ranch Water Company has up to seven connections: three ranch homes, two gas stations, and two fire hydrants. No water demand was assigned to the fire hydrants. Water demand is estimated at approximately 1 acre-foot (af) per connection.

[b] Beginning in spring 2019, potable groundwater production from Well 4 ceased. Potable groundwater production for JCSD is sourced from Wells 7 and 8, which are located in the fractured rock aquifer.

[c] Maximum demand based on meter reads from February 2017 to February 2018.

[d] Not all domestic wells are currently active or known; however, a consumptive water demand of 0.5 af/yr has been assigned to up to six potential domestic wells.

The JCSD operates two active groundwater wells, one pump, 7 miles of pipeline, and two reservoirs (total capacity 202,000 gallons) (County of San Diego 2011a). Residential land use accounts for 90% of JCSD water service, and the remaining 10% is provided to commercial land uses.

JCSD also supplies nonpotable water for commercial sale. Beginning in 2016, JCSD began supplying nonpotable water from the Highland Center Well and the Park Well, both located in the Jacumba Valley alluvial aquifer. Nonpotable water supply from JCSD varied based on customer demand. From February 2017 to February 2018, JCSD supplied 50.1 acre-feet (af) from the Highland Center Well and 3.5 af from the Park Well. From February 2018 to January 2019, JCSD supplied 4 af from the Highland Center Well and no water from the Park Well. Maximum annual groundwater extraction from the Jacumba Valley alluvial aquifer by JCSD for nonpotable water use is 53.6 af per year (af/yr) (INTERA 2025b; see Appendix G.5).

The water source for the project would be groundwater from the Highland Center Well, with a potential backup supply provided by the Park Well. These wells produce groundwater from the alluvial aquifer within the Jacumba Valley Groundwater Basin, as discussed in the groundwater resources investigation report (see Appendix G.5). The main sources of recharge to the basin are stream recharge, rainfall recharge, and applied water return flows. JCSD relies solely on groundwater as a source of water supply and is responsible for the community of Jacumba's domestic water system, which currently provides service to approximately

239 homes and commercial properties. At present, JCSD's potable water system has two existing domestic water supply wells in use: Well 7 and Well 8. Based on the number of connections and an estimated 0.5 af/yr per connection, JCSD potable water demand is estimated to be 119.5 af/yr (see Appendix G.5). This estimate roughly coincides with average historical water demand from 1991 to 1995 (average 119 af/yr).

The current maximum pumping rates for the Highland Center Well and the Park Well are 174 gallons per minute (gpm) and 80 gpm, respectively. The Highland Center Well is capable of supplying JCSD future maximum nonpotable water demand of 249 af of groundwater at a constant pumping rate of 154 gpm.

Wastewater

The project site lies outside the service area of the San Diego County Sanitation District and other wastewater districts (County of San Diego 2022a). There is no formal sanitation district in the project vicinity; wastewater service relies on individual septic systems that are the responsibility of the individual owners (County of San Diego 2011a).

Solid Waste

The project site is currently vacant and, therefore, is not provided with solid waste disposal services. However, solid waste disposal in southeastern unincorporated San Diego County is provided through subscription to a three-stream collection service (trash, recycling, and green waste) with a non-exclusive franchise hauler or contract with a Certified Recyclable Materials Collector for certain materials (County of San Diego 2021b). Within the incorporated and unincorporated areas of San Diego County, there are six permitted active landfills with remaining capacity that serve residents, businesses, and military operations: West Miramar Sanitary Landfill, Otay Landfill, Borrego Landfill, Las Pulgas Landfill, San Onofre Landfill, and Sycamore Landfill (Regional Water Quality Control Board [RWQCB] 2023). Las Pulgas and San Onofre Landfills are owned and operated by the U.S. Marine Corps and are not available for public disposal (California Department of Resources Recycling and Recovery [CalRecycle] 2025a, 2025b). The Sycamore, Otay, and Borrego Landfills are owned and operated by Republic Services, and the West Miramar Sanitary Landfill is owned by the U.S. Department of the Navy and operated by the City of San Diego (CalRecycle 2025c, 2025d, 2025e, 2025f).

Based on aerial surveys and calculations conducted between 2019 and 2021, the total San Diego landfill system capacity in 2021 is approximately 134,072,931 cubic yards or 107,005,301 tons using current landfill compaction rates (County of San Diego 2022b). The landfills nearest the project site in San Diego County are the Sycamore Landfill in Santee (approximately 45 miles northwest of the project site) and the Otay Landfill in Chula Vista (approximately 43 miles west of the project site). The Sycamore Landfill has a maximum permitted capacity of 147,908,000 cubic yards, permitted disposal rate of 5,000 tons per day and a remaining capacity of 105,064,991 cubic yards (CalRecycle 2025c). The current permit (37-AA-0023) anticipates that Sycamore Landfill would be in operation until 2042 based on current waste generation rates. The Otay Landfill has a maximum permitted capacity of 61,154,000, a permitted disposal rate/throughput of 6,700 tons per day, and a remaining capacity of 21,194,008 cubic yards (CalRecycle 2025d). The current permit (37-AA-0010) anticipates that Otay Landfill would be in operation until 2030 based on current waste generation rates (County of San Diego 2022b).

Electric Power and Other Utilities

Boulevard contains the San Diego Gas and Electric (SDG&E) Boulevard substation, an SDG&E 69-kilovolt (kV) overhead transmission line, numerous distribution circuits, and the SDG&E 500-kV Southwest Powerlink and Sunrise transmission lines. Two more SDG&E substations exist on the Campo Reservation which serve the 50-megawatt (MW) Kumeyaay Wind Facility approximately 5 miles northwest of the

project site (County of San Diego 2013). Canyon Wireless is the primary internet provider for the community of Boulevard (Canyon Wireless 2017).

3.1.10.2 Regulatory Setting

Federal Regulations

Clean Water Act

The Clean Water Act (CWA) was created with the goal to restore and preserve the chemical, physical, and biological integrity of the nation's waterways by preventing pollution from entering waterways, including wetlands, and assisting publicly owned wastewater treatment facilities to improve wastewater treatment. The CWA regulates the water quality of all discharges into waters of the United States including wetlands and perennial and intermittent stream channels.

Safe Drinking Water Act

The purpose of the Safe Drinking Water Act (SDWA) is to protect public health by regulating the nation's public drinking water supply. The SDWA authorizes the U.S. Environmental Protection Agency (EPA) to set national health-based standards for drinking water to protect against both naturally occurring and human-made contaminants that may be found in drinking water. Potential contaminants include improperly disposed chemicals, animal wastes, pesticides, human threats, waste injected underground, and naturally occurring substances. In addition, water that is not properly treated may pose a threat to drinking water. The SDWA applies to all public water systems across the nation. The EPA, individual states, and water systems work in coordination to ensure that these standards are met. The EPA identifies potential contaminants, determines an allowable maximum contaminant level, and enforces the set standards.

State Regulations

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) consists of three bills (Assembly Bill (AB) 1739, Senate Bill (SB) 1168, and SB 1319) that provide local agencies with a framework for managing groundwater basins in a sustainable manner. The SGMA establishes standards for sustainable groundwater management, roles and responsibilities for local agencies that manage groundwater resources, and priorities and timelines to achieve sustainable groundwater management. Central to the SGMA are the identification of critically over-drafted basins and the prioritization of groundwater basins, establishment of groundwater sustainability agencies, and preparation and implementation of groundwater sustainability plans (GSP) for medium-priority, high-priority, and critically over-drafted basins. GSP objectives require that future groundwater use does not cause undesirable results, which include the following: declining water levels, reduction of groundwater storage, seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water. One requirement of a GSP is to establish a monitoring network to track water level changes and groundwater storage, and to monitor pre-determined water level thresholds within each basin. Water level data for these basins are made available to the public through online portals. A basin may be managed by a single GSP or multiple coordinated GSPs.

At the state level, DWR has the primary role in the implementation, administration, and oversight of the SGMA, with the State Water Resources Control Board (SWRCB) stepping in should a local agency be found to not be managing groundwater sustainably.

In San Diego County, three groundwater basins are designated as medium- or high-priority and subject to SGMA: Borrego Valley (Borrego Springs Subbasin), San Luis Rey Valley (Upper San Luis Rey Valley Subbasin), and San Pasqual Valley (County of San Diego 2022c). As discussed in Section 3.1.10.1, Existing Conditions, the proposed project is within the region of the Jacumba Valley Groundwater Basin, a very low-priority groundwater basin, and thus does not require a GSP.

Urban Water Management Planning Act

As a part of the California Water Code, the California Urban Water Management Planning Act requires all urban water suppliers with more than 3,000 connections or distributing more than 3,000 af/yr to complete an urban water management plan (UWMP) every 5 years ending in "5" and "0". Each plan must include a description of the service area, existing and planned sources of water available to the supplier, how much water the agency has on a reliable basis, how much it needs for the foreseeable future, the agency's strategy for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding of the agency's plan. In addition, every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its UWMP that includes, but is not limited to, an analysis of water supply reliability over a 20-year planning timeframe, the procedures used in conducting an annual water supply and demand assessment, a definition of standard water shortage levels corresponding to progressive ranges of up to 50% shortages and greater than 50% shortages, and shortage response actions that align with the defined shortage levels.

The JCSD pumps local groundwater from four district-owned wells to 230 connections. The system includes two treated-water reservoirs with an aggregate capacity of 638,000 gallons (San Diego County Local Agency Formation Commission [SDLAFCO] 2013). As the JCSD serves less than 3,000 connections, it is not required to prepare a UWMP.

California Senate Bill 610

SB 610 took effect on January 1, 2002. SB 610, codified in the California Water Code beginning with Section 10910, requires the preparation of a water supply assessment for projects above a certain size and scale. SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a water supply assessment to evaluate water supplies that are or will be available during normal, single-dry and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with the project. SB 610 requirements do not apply to the general plans of cities or counties, but rather to specific development projects. The proposed project meets the requirements as defined in California Water Code Section 10912 [a] and is therefore not subject to SB 610.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) was originally enacted to require cities and counties in California to divert 25% of their waste streams by the year 1995 and 50% by the year 2000. Later legislation mandates the 50% diversion requirement to be achieved each year. Specifically, the act requires counties and cities to adopt a Source Reduction and Recycling Element of their Waste Management Plans to describe actions to be implemented to achieve waste reduction goals (Public Resources Code [PRC] Section 41750). CalRecycle oversees and provides assistance to local governments as they develop and implement plans to meet the mandates of the Integrated Waste Management Act and subsequent legislation.

California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327) requires each local jurisdiction to adopt an ordinance requiring commercial, industrial, institutional building, marina, or

residential buildings having five or more living units to provide an adequate storage area for the collection and removal of recyclable materials. The sizes of these storage areas are to be determined by the appropriate jurisdictions' ordinance. If no such ordinance exists with the jurisdiction, the CalRecycle model ordinance shall take effect.

Mandatory Commercial Recycling Program

The Mandatory Commercial Recycling Program (AB 341) authorizes CalRecycle to develop and adopt regulations for mandatory commercial recycling. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, all multi-family homes with more than five units are also required to have a recycling program in place.

California Senate Bill 1374

SB 1374 was implemented to assist jurisdictions with diverting construction and demolition waste material. Per SB 1374, PRC Section 41821 requires public agencies to include a summary of the progress made in diverting construction and demolition waste according to diversion goals included in AB 939. Per SB 1374, PRC Section 41850 authorizes CalRecycle to fine jurisdictions that do not meet the required goals. Additionally, per SB 1734, PRC Section 42912 requires that CalRecycle adopt a model ordinance for diverting 50% to 75% of all construction and demolition waste from landfills.

Local Regulations

SANDAG Regional Energy Strategy

The San Diego Association of Government's (SANDAG's) *Regional Energy Strategy Update* (SANDAG 2014) serves as the energy policy blueprint for the San Diego region through 2050 and identifies priority early implementation actions, essential to meeting the region's energy goals:

- Pursue a comprehensive building retrofit program to improve efficiency and install renewable energy systems;
- Create financing programs to pay for projects and improvements that save energy;
- Utilize the SANDAG-SDG&E Local Government Partnership to help local governments identify opportunities and implement energy savings at government facilities and throughout their communities;
- Support land use and transportation planning strategies that reduce energy use and GHG [greenhouse gas] emissions;
- Support planning of electric charging and alternative fueling infrastructure; and
- Support the use of existing unused reclaimed water to decrease the amount of energy needed to meet the water needs of the San Diego region.

The *Regional Energy Strategy Update* identifies the main strategy drivers, including the state's preferred loading order for meeting new energy needs and global climate change and its policy implications. The California Public Utilities Commission and California Energy Commission adopted a preferred loading order to meet the goals for satisfying the state's growing demand for electricity, which would place top priority on increasing energy efficiency and demand response (i.e., temporary reduction or shift in energy use during peak hours), generating new energy from renewable and distributed generation resources, and improvements to clean fossil-fueled generation and infrastructure. Environmental changes caused by

climate change are anticipated to have an increasing impact on energy production and peak demand for electricity.

County of San Diego Renewable Energy Plan

The *County of San Diego Renewable Energy Plan* (Brummitt Energy Associates Inc. and Dersch Design & Engineering 2019) outlines measures to research and develop renewable energy options in San Diego County. The planning effort covers the residential, commercial, and industrial sectors of the county, with a particular focus on unincorporated areas, and presents a comprehensive approach to renewable energy and energy efficiency. A goal of the plan is to increase the use of grid-supplied energy sourced from renewable power.

San Diego County Decarbonization Framework

The San Diego Regional Decarbonization Framework is the County's science-based, holistic approach to guide the region's decarbonization efforts in partnership with the University of California, San Diego School of Global Policy and Strategy and the University of San Diego Energy Policy Initiatives Center and Inclusive Economics.

Recognizing the need for a regional approach to addressing climate change, on January 27, 2021, the County Board of Supervisors voted to create a Regional Decarbonization Framework (County of San Diego 2021d). This framework is intended to inform their collective future actions on reducing GHG emissions in the San Diego region. It is intended to supplement climate action planning efforts that are currently underway and chart collaborative pathways to implement their regional goals.

County of San Diego General Plan

The 2011 *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011b) guides future growth in the unincorporated areas of San Diego County and considers projected growth anticipated to occur within various communities. Goals and policies from several General Plan elements, discussed below, were determined to be applicable to the project.

Land Use Element

The Land Use Element provides a framework to accommodate future development in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection of valuable and sensitive natural resources (County of San Diego 2011c). Currently, the County is faced with both significant growth pressures and severe environmental constraints. While population continues to grow, the supply of land capable of supporting development continues to decrease. In accommodating this growth, the land use plan encourages the provision of diverse housing choices while protecting the established character of existing urban and rural neighborhoods. The Land Use Element provides a description of all land use designations applicable to land within San Diego County and specifies the permitted uses on those land use designations.

The following policies of the Land Use Element are applicable to the proposed project (County of San Diego 2011c):

- **Policy LU-8.2 Groundwater Resources.** Require development to identify adequate groundwater resources in groundwater dependent areas, as follows:
    - In areas dependent on currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions. Encourage programs to alleviate overdraft conditions in Borrego Valley.

  - In areas without current overdraft groundwater conditions, evaluate new groundwater-dependent development to assure a sustainable long-term supply of groundwater is available that will not adversely impact existing groundwater users.

- **Policy LU-8.3 Groundwater-Dependent Habitat.** Discourage development that would significantly draw down the groundwater table to the detriment of groundwater-dependent habitat.
- **Policy LU-12.1 Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.
- **Policy LU-12.3 Infrastructure and Services Compatibility.** Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the collocation of infrastructure facilities, where appropriate.
- **Policy LU-13.1 Adequacy of Water Supply**. Coordinate water infrastructure planning with land use planning to maintain an acceptable availability of a high-quality sustainable water supply. Ensure that new development includes both indoor and outdoor water conservation measures to reduce demand.
- **Policy LU-13.2: Commitment of Water Supply**. Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.
- **Policy LU-14.2 Wastewater Disposal.** Require that development provide for the adequate disposal of wastewater concurrent with the development and that the infrastructure is designed and sized appropriately to meet reasonably expected demands**.**

Conservation and Open Space Element

The primary focus of the Conservation and Open Space Element is to provide direction to future growth and development in San Diego County with respect to conservation, management, and utilization of natural and cultural resources, protection and preservation of open space, and provision of park and recreation resources (County of San Diego 2011d).

The following policies of the Conservation and Open Space Element are applicable to the proposed project (County of San Diego 2011d):

- **Policy COS-17.1 Reduction of Solid Waste Materials.** Reduce greenhouse gas emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of solid waste that is generated. Divert solid waste from landfills in compliance with State law.
- **Policy COS-17.2 Construction and Demolition Waste.** Require recycling, reduction and reuse of construction and demolition debris.
- **Policy COS-19.1 Sustainable Development Practices**. Require land development, building design, landscaping, and operational practices that minimize water consumption.
- **Policy COS-19.2 Recycled Water in New Development.** Require the use of recycled water in development wherever feasible. Restrict the use of recycled water when it increases salt loading in reservoirs.

Safety Element

The purpose of the Safety Element is to provide safety considerations that will help minimize the risk of personal injury, loss of life, property damage, and environmental damage associated with natural and human-made hazards within San Diego County (County of San Diego 2021c).

The following policies of the Safety Element are applicable to the proposed project (County of San Diego 2021c):

- **Policy S-7.1 Water Supply.** Ensure that water supply infrastructure adequately supports existing and future development and provides adequate water flow to combat structural and wildland fires. Water systems shall equal or exceed the California Fire Code, California Code of Regulations, or, where a municipal-type water supply is unavailable, the latest edition of National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting."
- **Policy S-12.7 Resilient Energy Resources.** Increase the resilience of energy resources and protect critical energy infrastructure and systems from the increased risks associated with climate change.
- **Policy S-12.8 Resilient Water Resources.** Protect water resources vulnerable to climate change and ensure a safe and reliable supply of water.

Mountain Empire Subregional Plan

The project site lies within the Mountain Empire Subregion. The *Mountain Empire Subregional Plan, San Diego County General Plan* (Mountain Empire Subregional Plan) (County of San Diego 2016) establishes goals and policies to guide development within the areas of Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba, and the Mountain Empire Balance (including the community of Tierra del Sol), which together compose the Mountain Empire Subregion of southeastern San Diego County. The goals and policies of the Mountain Empire Subregional Plan are intended to be more specific than those of the General Plan as they consider the distinct history, character, and identity of Mountain Empire communities.

The following policies of the Mountain Empire Subregional Plan are applicable to the proposed project (County of San Diego 2016):

- **Policy and Recommendation 1.** Maintain unobstructed access to and along the path of existing power transmission facilities and lines.
- **Policy and Recommendation 2.** Any proposed grading, improvements, or other encroachments to the substation or transmission rights-of-way must be reviewed by SDG&E.
- **Policy and Recommendation 3.** Any alteration of drainage patterns affecting the substation or transmission line rights-of-way should be reviewed and approved by SDG&E.
- **Policy and Recommendation 4.** Uses proposed for property adjacent to substations or transmission line rights-of-way should be reviewed for possible impacts to the power facilities and vice versa.
- **Policy and Recommendation 7.** Ensure that all development be planned in a manner that provides adequate public facilities prior to or concurrent with need.

Boulevard Subregional Plan

The project site lies within Boulevard, a subregional planning area within the Mountain Empire Subregion. The Boulevard Subregional Planning Area includes approximately 55,350 acres and contains the

communities of Boulevard, Manzanita, Live Oak Springs, Tierra Del Sol, Crestwood, Jewel Valley, McCain Valley, Miller Valley, and a portion of Bankhead Springs (County of San Diego 2013).

The following policies of the *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (Boulevard Subregional Plan) are applicable to the project (County of San Diego 2013):

- **Policy CM 8.6.1** Encourage the use of existing right-of-way when construction of new transmission lines is required, where technically and economically feasible. Additionally, encourage existing right-of-way over new right-of-way alignments for construction of new transmission lines, when existing right-of-way is insufficient.
- **Goal CM 8.7** A safe and healthy environment, for man and nature, free of unhealthy and unsightly litter, unnecessary waste, and improper disposal.
- **Policy CM 8.7.1** Encourage Zero Waste Management goals through increased recycling and reuse.

County of San Diego On-Site Wastewater System Groundwater Policy

On-site wastewater treatment systems discharge pollutants to groundwater and therefore are regulated by the State Water Code. State Water Code Section 13282 allows RWQCBs to authorize a local public agency to issue permits for and to regulate on-site wastewater treatment systems "to ensure that systems are adequately designed, located, sized, spaced, constructed and maintained." The RWQCB with jurisdiction over San Diego County authorizes the County Department of Environmental Health to issue certain on-site wastewater treatment system permits that ensure compliance with the County's Onsite Wastewater Treatment Groundwater Policy throughout San Diego County, including within incorporated cities. No city within San Diego County is authorized to issue these permits.

San Diego County Board of Supervisors Policy I-36, Sewer Extensions and Connections in Areas Not Annexed to a Sanitation District

Board of Supervisors Policy I-36 prohibits extension of sewer lines to areas not located within a sanitation district unless annexation has occurred. Where a public health problem has been determined, application to the SDLAFCO for annexation must occur. A temporary connection agreement (subject to SDLAFCO approval) can then be issued prior to completion of annexation proceedings.

County of San Diego Solid Waste Ordinance

The County Board of Supervisors unanimously approved updates to the Solid Waste Ordinance on May 5, 2021 (County of San Diego 2025). This requires all residents and businesses in the -sparsely populated areas of unincorporated San Diego County to comply with new recycling requirements. Sparsely populated areas include census tracts that have a population density of less than 75 people per square mile.

County of San Diego Integrated Waste Management Plan

The County Board of Supervisors adopted the *County of San Diego Integrated Waste Management Plan, Countywide Summary Plan* (County of San Diego 1996) on September 17, 1996. The plan discusses the need for a reduction in solid waste and includes a Source Reduction and Recycling Element, Household Hazardous Waste Element, Non-Disposal Facility Element, Countywide Siting Element, and the Countywide Summary Plan. The Countywide Siting Element of the 1996 plan was updated in 2005 (County of San Diego 2005), as required by the Integrated Waste Management Act. It describes the facilities and strategies that will provide adequate capacity for the disposal of solid waste within San Diego County over the next 15 years, including alternatives such as additional waste diversion programs and waste export. The Countywide Siting Element presents a strategy to assist local governments and private industry in planning

for integrated waste management and the siting of solid waste disposal facilities. The goals and policies listed in the Countywide Siting Element are intended to assist all jurisdictions to plan and implement a solid waste management program.

County of San Diego Construction and Demolition Debris Recycling Ordinance

The County of San Diego Construction and Demolition Debris Recycling Ordinance (Sections 68.511 through 68.518 of the County Code of Regulatory Ordinances) is intended to increase diversion of construction and demolition materials from landfills in order to conserve landfill capacity and extend the useful life of local landfills. The ordinance requires that projects totaling over 40,000 square feet of construction prepare a debris management plan that specifies the type of project, total square footage of construction, and (among other items) the estimated volume and weight of construction and demolition debris that would be disposed of at a landfill. Applicants of applicable projects are required to submit a performance guarantee (payment) to the County to ensure that the project complies with the diversion standards (i.e., projects shall recycle 90% inert construction and demolition debris and 70% of all other construction and demolition debris) of the Construction and Demolition Debris Recycling Ordinance.

3.1.10.3 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

The County's guidelines for determining significance do not explicitly address utilities and service systems. Therefore, for the purpose of this EIR, Appendix G (XIX) of the State California Environmental Quality Act (CEQA) Guidelines applies to the direct and indirect impact analysis, as well as the cumulative impact analysis. The project would be considered to have a significant effect on utilities and service systems if the effects exceed the significance criteria described below:

- 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.
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

The project would be unoccupied and would be operated remotely. As discussed in Section 3.2, Effects Found Not Significant as Part of the Initial Study, the project would not require the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities (see Appendix A). The project does not propose any use types that would require wastewater treatment and would not interfere with wastewater treatment providers' service capacity. Finally, while construction of the project would temporarily generate solid waste, operation would not result in solid waste. Therefore, the analysis of project effects below does not include detailed discussion of project impacts to wastewater, natural gas, or telecommunications facilities.

Electric Power

Guidelines for the Determination of Significance

A significant impact would result if the project would:

- Require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects.

Analysis

The project would include installation of new electric infrastructure and connections to existing infrastructure to improve electrical reliability for the San Diego region. The project would interconnect with the existing SDG&E Boulevard substation. The electric power and telecommunications would be attached to existing distribution lines, telecommunications infrastructure, and the project's substation. There would be no need to relocate any existing electric power or telecommunications structures. Given the proximity of existing facilities to the project site and the lack of employees or other occupants at the site, the project would not require or result in the relocation or construction of electric power facilities during construction, operation, maintenance, and future decommissioning. Impacts would be **less than significant.**

Water/Stormwater

Guidelines for the Determination of Significance

The County's guidelines for determining significance do not include significance thresholds or guidance for determining significance for impacts to utilities and service systems. Therefore, for the purpose of this EIR, Appendix G of the State CEQA Guidelines applies to the direct and indirect impact analysis, as well as the cumulative impact analysis. A significant impact would result if the project would:

- 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.
- Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

Analysis

Utility Infrastructure

The project would be unoccupied and would be operated from an off-site supervisory control and data acquisition (SCADA) system. Canyon Wireless would be the telecommunication provider for the SCADA system, and no improvements would be needed in order to serve the project. For these reasons, the project would not require or result in the relocation or construction of new or expanded water or wastewater treatment, natural gas, or telecommunications facilities which could cause significant environmental effects. Furthermore, the project is a solar energy generation and storage facility that would generate electric power through solar energy and thus would not require or result in the relocation or construction of new or expanded electric power facilities.

Trenching is required for installation of the AC medium-voltage underground electrical collection system, generation-tie (gen-tie) line, and telecommunication lines. Trenches would be approximately 3 to 4 feet deep and 1 to 3 feet wide and would connect all the solar array areas. The trenches would be filled with base materials above and below the conductors and communication lines to ensure adequate thermal conductivity and electrical installation characteristics. The topsoil from trench excavation would be set aside before the trench is backfilled and would ultimately compose the uppermost layer of the trench. Excess material from the foundation and trench excavations would be used for site leveling. Where possible, trenching would be located beneath existing driveways and access roads to minimize disturbance.

Water Supply

Water used during project construction would be supplied by JCSD, located in Jacumba Hot Springs, California. The groundwater resources investigation report for the project prepared an updated estimate of groundwater in storage, including methodology, calculations, and results (see Appendix G.5). The estimate evaluated whether the water demands would maintain at least 50% of groundwater in storage over the 2,061-acre Jacumba Valley alluvial aquifer. Based on foreseeable renewable energy projects, JCSD is proposing to extract 278 af of groundwater over 24 months. The groundwater resources investigation report analyzed a one-time extraction of up to 139 af per year for 2 years from JCSD nonpotable wells which was compared to historical groundwater extraction rates from the Jacumba Valley alluvial aquifer. Groundwater recharge is not included in the methodology to evaluate a worst-case scenario during a drought period with little to no recharge to the Jacumba Valley alluvial aquifer.

Estimated Groundwater Demand by the Proposed Project

In 2023, the Jacumba Valley Groundwater Basin was estimated to have 8,639 af in storage (Appendix G.5). The proposed groundwater extraction amount of 278 af over approximately 2 years from the Highland Center Well with backup provided from the Park Well would be equivalent to 6.7% of the total estimated maximum annual production of 2,066 af/yr from the entire Jacumba Valley alluvial aquifer. Assuming no recharge to the aquifer, this proposed groundwater extraction amount from the Highland Center Well and Park Well would reduce groundwater in storage by 1.5% annually for 2 years.

Construction

During construction activities, the project would primarily use water for dust control during earthwork and grading. Concrete used during construction would be imported from off-site, and no concrete mixing would take place. No pre-wetting of the ground surface prior to grading would take place, and no water demand for noxious weed mitigation is assumed.

Phase I of the project would be constructed over 125 acres with 75,314 cubic yards of grading. The Phase I gen-tie line construction would disturb an additional 0.2 acres. Water used for hydroseeding would be applied at 2,500 gallons per acre to the disturbed area and daily dust control water would be applied. The Phase I construction water demand estimate is 14.8 af (Table 3.1.10-2). See Appendix G.4 for additional details regarding construction water demand.

Table 3.1.10-2. Estimated Construction Water Demand for Phase I

Activity	Description	Total Water Demand (af)
Mass Grading	Grading of 75,314 cubic yards. Uses an estimated on-site soil moisture content of 2% and optimum soil moisture content of 9% to gain compaction to determine required input of water	**11.2**
Daily Dust Control	Assumes 3,300 gallons per acre with or without tackifier. Half of the construction area, would not be continuously disturbed, and one application of water with tackifier would be sufficient for dust suppression per day. Water and tackifier would be applied to the remaining area three times per day.	**2.5**
Other Construction Needs	Water necessary for other construction needs, such as filling tanks for fire protection and hydroseeding	**1.05**
Total Phase I Construction Water Use		**14.8**

Source: INTERA (2025a) (see Appendix G.4)

Phase II of the project would be constructed over 436 acres with 274,686 cubic yards of grading. The Phase II gen-tie line construction would disturb an additional 0.2 acres. Water used for hydroseeding would be applied at 2,500 gallons per acre to the disturbed area, and daily dust control water would be applied. The Phase II construction demand estimate is 53.1 af (Table 3.1.10-3). See Appendix G.4 for additional details regarding construction water demand.

Table 3.1.10-3. Estimated Construction Water Demand for Phase II

Activity	Description	Total Water Demand (af)
Mass Grading	Grading of 75,314 cubic yards. Uses an estimated on-site soil moisture content of 2% and optimum soil moisture content of 9% to gain compaction to determine required input of water	**40.8**
Daily Dust Control	Assumes 3,300 gallons per acre with or without tackifier. Half of the construction area, would not be continuously disturbed, and one application of water with tackifier would be sufficient for dust suppression per day. Water and tackifier would be applied to the remaining area three times per day.	**8.8**
Other Construction Needs	Water necessary for other construction needs, such as filling tanks for fire protection and hydroseeding	**3.4**
Total Phase II Construction Water Use		**53.1**

Source: INTERA (2025a) (see Appendix G.4)

Operation and Maintenance

Project operation would require water for nonpotable use, dust control, panel washing, and fire protection. No landscaping irrigation is proposed for the operation and maintenance (O&M) of the proposed project. During operation, the project would require water for panel washing up to one time per year. Similar solar photovoltaic operations use approximately 0.3 gallons of water per square yard of panel. Based on the planned 20-MW capacity of the proposed project during Phase I, approximately 50,700 panels at approximately 30.8 square feet per panel totaling 1,560,000 square feet (173,333 square yards) may be washed up to one time per year. Annual water demand for Phase I panel washing would be up to approximately 0.16 af. Based on the planned 80-MW capacity of the proposed project during Phase II, approximately 202,744 panels at approximately 30.8 square feet per panel totaling 6,383,440 square feet (709,271 square yards) may be washed up to one time per year. Annual water demand for Phase II panel washing would be approximately 0.65 af. Once both phases are operational, the annual panel washing water demand would be 0.81 af (see Appendix G.4).

Decommissioning

Activities associated with decommissioning would not include substantial earthmoving. It is estimated that the amount of water necessary to dismantle the solar facility would be less than that required for construction, because there would be no need to use water to hydrate and compact on-site fills. The activities associated with decommissioning would not include grading. The only water demand during decommissioning would be for dust suppression and would be supplied by two 6,000-gallon water trucks. Phase I would require a water demand of 2.4 af for decommissioning, and Phase II would require 4.2 af for decommissioning, for a total of 6.6 af (see Appendix G.4).

Total Estimated Water Demand for the Proposed Project

The Phase I construction water demand estimate is 14.8 af, and the Phase II construction demand estimate is 53.1 af. The total estimated construction water demand is 67.9 af. Once both phases are operational, the annual panel washing water demand would be 0.81 af per year. Decommissioning of both phases would

require 6.6 af of water. Overall, the project would use approximately 98.8 af of nonpotable water during construction, O&M, and decommissioning, assuming a project lifetime of 30 years.

Estimated Groundwater Demand by All Current Users of the Basin

Historically, groundwater demand from the Jacumba Valley alluvial aquifer has been estimated to be upward of 2,066 af/yr. However, groundwater production has drastically decreased since agriculture irrigation ceased on Jacumba Valley Ranch. The current groundwater demand from the Jacumba Valley alluvial aquifer is estimated to be 15 af/yr. Based on foreseeable renewable energy projects, including the proposed project, JCSD is proposing to extract 278 af of groundwater over 24 months. Totaling the current use of 15 af and the 1-year construction water demand of 139 af, the proposed demand would result in a 1-year extraction amount of 153 af from the Jacumba Valley alluvial aquifer.

The future probable maximum nonpotable groundwater demand for JCSD wells is estimated based on the demand of the proposed project and reasonably foreseeable projects to evaluate potential impacts pursuant to the County's guidelines for significance. The *Updated Draft Groundwater Resources Investigation Report – Flat Creek Watershed Analysis* (see Appendix G.5) provides annual water demand estimates for the proposed project, as well as the reasonably foreseeable projects, including construction, O&M, and decommissioning over the expected life of the project. The total nonpotable JCSD water demand for the proposed project and reasonably foreseeable projects over a 35-year period is 487.6 af.

Stormwater

As discussed in Section 2.4, Hydrology and Water Quality, a range of state and local water quality regulations and ordinances apply to the project that require the Applicant to submit and implement a project-specific stormwater pollution prevention plan (SWPPP) during construction and a standard stormwater quality management plan (SWQMP) for O&M activities (see Appendix G.3).

The preliminary drainage study (Appendix G.1, Preliminary Drainage Study) determined that the project would produce approximately 10.49 acres (0.0163 square mile) of impervious area. The impervious area would include the proposed concrete pads for electrical equipment, solar panel posts, and water tanks. The proposed all weather access road would remain pervious. The drainage study determined that the additional impervious area represents 0.0068% of the watershed that is contributing to the drainage passing through the proposed site. This increase in impervious area constitutes a small enough area that would not change the overall drainage pattern. The water runoff would flow overland across the project site in a similar manner as it does in the pre-developed state. Thus, the additional impervious area would have minimal to no impact on existing watershed hydrology (see Appendix G.1).

Because the project would consist of more than 1 acre, the Applicant would be required to submit a Notice of Intent to the SWRCB to obtain approval to carry out construction activities under the Construction General Permit. This permit would include a number of design, management, and monitoring requirements for the protection of water quality and the reduction of construction-phase impacts related to stormwater (and some non-stormwater) discharges. Permit requirements would include preparation of a SWPPP, implementation and monitoring of best management practices (BMPs), implementation of best available technology for toxic and non-conventional pollutants, implementation of best conventional technology for conventional pollutants, and periodic submittal of performance summaries and reports to the Colorado River Basin RWQCB. The SWPPP would apply to the project as a whole and would include reference to the major construction areas, temporary materials staging areas, access roads, and work associated with gen-tie line facilities. BMPs to be implemented in accordance with the SWPPP and the standard SWQMP would address alteration of drainage patterns, velocity and peak flow rates, and erosion control.

Conclusion

In addition, to further ensure that water purchased from JCSD would not impact the aquifers accessed by JCSD's nonpotable water production wells, a groundwater monitoring and mitigation plan (GMMP) has been prepared for the proposed project (see Appendix G.2). Incorporation of **PDF-HY-2** would ensure that the project would implement the GMMP (see Section 2.4, Hydrology and Water Quality). The GMMP details groundwater thresholds for off-site well interference and groundwater-dependent habitat, so with the implementation of **PDF-HY-2**, groundwater-level monitoring would be performed in several wells to record groundwater levels during groundwater extraction. Therefore, adequate water sources are available to meet the construction and operational needs of the project, and impacts would be **less than significant**.

Solid Waste

Guidelines for the Determination of Significance

The County's guidelines for determining significance do not include significance thresholds or guidance for determining significance for impacts to utilities and service systems. Therefore, for the purpose of this EIR, Appendix G of the State CEQA Guidelines applies to the direct and indirect impact analysis, as well as the cumulative impact analysis. A significant impact would result if the project would:

- 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.
- Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Analysis

The project includes the construction and operation of an unoccupied renewable energy solar and battery storage facility. As discussed in the Initial Study prepared for the project, the project would not require the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities (see Appendix A). The project would not require employees or other occupants at the site, does not propose any use types that would require wastewater treatment, and would not interfere with wastewater treatment providers service capacity. Impacts related to infrastructure capacity would be less than significant.

The construction of the project would temporarily generate solid waste. During construction, solid waste would be appropriately sorted and recycled, when feasible, in accordance with the California Green Building Standards Code (CALGreen) (11 California Code of Regulations 24) (i.e., a minimum 65% of the nonhazardous construction and demolition waste) and the County Construction Demolition and Debris Recycling Ordinance (County Code Sections 68.511–68.518). Further, construction waste would meet local standards of solid waste and recycling policies as defined in the Conservation and Open Space Element of the County's General Plan and in Sections 68.501 through 68.612 (solid waste management) of the County Code. The project does not propose any new structures or use types that would generate solid waste. Therefore, impacts related to solid waste generation and regulatory compliance would be **less than significant**.

3.1.10.4 Cumulative Impact Analysis

The cumulative analysis for utilities and service system impacts was performed using the projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting. Cumulative projects

in the area include several existing and proposed wind and solar renewable energy projects as well as other facilities located within the JCSD service area.

The list of cumulative projects includes several existing and proposed wind and solar renewable energy projects, public facilities improvement projects, and the Rough Acres Ranch Campground (which has its own groundwater supply). These projects would increase demand for JCSD's water supply. The groundwater resources investigation report (see Appendix G.5) evaluates the cumulative impacts of current and future projects with an appreciable water demand within the watershed study area. The groundwater resources analysis incorporated historical climate data, which include historical periods of increased rainfall and periods of extended drought. The results of this analysis concluded that reduction in groundwater storage, well interference impacts, and impacts to groundwater-dependent habitat and water quality would be less than significant. In addition, other renewable energy projects occurring in the area would be required to prepare a GMMP similar to that for the project that would ensure that groundwater-level monitoring would be performed in groundwater wells and that groundwater levels would be recorded during groundwater extraction. Thus, the JCSD would have sufficient water supplies to serve the project and reasonably foreseeable future development in the project area. Therefore, the project, along with other projects occurring in the area, **would not result in a cumulatively considerable impact.**

3.1.10.5 Project Design Features

All utilities and service systems impacts were determined to be less than significant; therefore, no mitigation measures are required. However, as presented in Chapter 2.4, Hydrology and Water Quality, the Applicant has identified and committed to including the following project design feature:

PDF-HY-2 **Implementation of GMMP for JCSD**. To ensure nonpotable water purchased from the Jacumba Community Services District (JCSD) does not result in impacts to the aquifers accessed by JCSD's nonpotable water production wells (Highland Center Well and Park Well), the Starlight Solar Developer will implement the Groundwater Mitigation Monitoring and Mitigation Plan (GMMP) for the Flat Creek watershed.

A groundwater monitoring report will be completed by a Professional Geologist or Professional Engineer licensed in the state of California and will be submitted to County Planning and Development Services (PDS) annually no later than 28 days following the end of the calendar year. Groundwater monitoring reports should be submitted for 5 years after proposed project construction has commenced. After 5 years, County PDS should determine if continuous reporting is required based on the effects of groundwater extraction from the previous 5 years. The annual reports will include the following information:

- Groundwater-level hydrographs and tabulated groundwater-level data for each accessible well in the groundwater-monitoring network
- Tabulated groundwater production volumes from JCSD nonpotable wells
- Documentation of any changes in well pumping or groundwater well conditions for wells in the groundwater-monitoring network
- Documentation of groundwater-dependent habitat monitoring, if necessary, as described in the GMMP

If the baseline groundwater levels at the wells included in the groundwater monitoring network are exceeded by 5 feet, County PDS will be notified via letter and email within 1 working day of the exceedance, or immediately after the exceedance is recognized. Additionally, if groundwater-level thresholds at the off-site wells are exceeded by their

respective thresholds, pumping of JCSD nonpotable wells for the project will cease and County PDS will be notified via letter and email within 1 working day, or immediately after the exceedance is recognized.

3.1.10.6 Conclusion

The project involves the construction and operation of an unoccupied solar energy generation and battery storage facility. The project would be unoccupied, would not require employees or other occupants at the site, and would not use any natural gas. The project includes the installation of all necessary electric infrastructure and facilities and would also connect to existing infrastructure. No additional electric power facilities other than those included in the project design would be required. As discussed in the groundwater resources investigation report (see Appendix G.5), the JCSD would have sufficient water supplies to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, the impacts to utilities and service systems would be **less than significant**.

3.2 Effects Found Not Significant as Part of the Initial Study

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15365, the County of San Diego (County) prepared an Initial Study and Notice of Preparation (NOP) for this Environmental Impact Report (EIR) for the Starlight Solar Project (project). The NOP was publicly circulated for 30 days beginning March 23, 2023. The County held a public scoping meeting on April 12, 2023, at the Backcountry Resource Center to provide responsible agencies and members of the public with information about the CEQA process and to provide further opportunities to identify environmental issues and alternatives for consideration in the EIR. Public comments received during the NOP scoping process are provided in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

This section discusses the environmental topics for which the effects were identified as having no impact or being less than significant during the scoping process and preparation of the NOP and Initial Study and therefore did not require further analysis. According to the CEQA Guidelines, an EIR should focus on the significant effects on the environment (14 California Code of Regulations [CCR] 15143). To this end, an EIR can "scope out" environmental topics from detailed discussion by including the reasons for which various possible significant effects were not found significant and are not discussed in detail (14 CCR 15128). Consistent with this guidance, the entire or portions of the following environmental topics were found to be not significant during preparation of the Initial Study and scoping process for the project.

- Agriculture and Forestry Resources (Section II)
- Population and Housing (Section XIV)
- Parks and Recreation (Section XVI)

In addition to having been screened out during the NOP and scoping process through the Initial Study, these environmental topics did not receive any public comments during the scoping process. This indicates that none of these environmental areas should be addressed further. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project:

- *Phase I Environmental Site Assessment, Boulevard Starlight Solar* (Michael Baker International 2023) (Appendix I of this EIR)
- *Agricultural Resources Review Memorandum* (County of San Diego 2023) (Appendix M of this EIR)

The sections that follow summarize the findings from the Initial Study for the topics of Agriculture and Forestry Resources, Population and Housing, and Parks and Recreation.

3.2.1 Agriculture and Forestry Resources

For the purpose of this EIR, the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Agricultural Resources* (County of San Diego 2015) was used to evaluate direct and indirect impacts of the project.

The 588-acre project site is a portion of the 3,874-acre property known as Empire Ranch, which has historically supported ranching, grazing, and recreational uses. Empire Ranch includes a ranch compound, located directly south of Jewel Valley Road, with several single-family homes, bunkhouses, structures for livestock, and a private airstrip. Portions of the project site were historically used for agricultural purposes. Based on historical documentation, land south of the airstrip on the project site may have been used as

ranching/grazing land beginning in 1989 (see Appendix I). The former ranching/grazing land appeared to be ancillary uses supporting historic and current ranching operations at the western-adjoining Empire Ranch property. A portion of a detention basin was present on-site from at least 1989 until sometime before 2002. Further, according to interviews, one dry well is located on the subject property and was previously used for watering cows. The project site does not currently contain agricultural or ranching uses (see Appendix M). The project site is surrounded by unpaved roads, other rural residential development, an electrical substation, and undeveloped land.

Under the County's Zoning Ordinance (County of San Diego 2025), the entire project site is zoned as General Rural (S92). No portion of the project site is subject to any Special Area Regulations. The S92 Use Regulations provide controls for land that (1) consists of rugged terrain, (2) is a watershed, (3) is dependent on groundwater for the water supply, (4) is a desert, (5) is susceptible to fires and erosion, or (6) is subject to other environmental constraints. Agricultural uses, including horticulture, tree crops, and row and field crops, are permitted by the S92 use regulations.

The County's Local Agricultural Resources Assessment (LARA) model evaluates the importance of agricultural resources through the required factors of water, climate, and soil quality (County of San Diego 2015). Pursuant to County guidelines, if any of the required factors of water, climate, or soil receive a rating of "low," the site would not be considered a significant agricultural resource.

Using the LARA model, the factor of water was evaluated at the project site (see Appendix M). Water received a rating of low due to the type of underlying groundwater aquifer. The site is underlain by fractured crystalline rock, and groundwater yield in fractured crystalline rock is generally limited, compared with other aquifer types. The project site does contain a well but does not contain imported water infrastructure connections throughout the site. Therefore, the site would be reliant on a limited groundwater resource for the foreseeable future.

Further, the project site is not designated by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance (DOC 2020). The project site is designated as Other Land, which is defined as "land not included in any other mapping category." Examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities. The project site does not contain grazing or agricultural uses.

While the project site is compatible with agricultural use types due to its rural nature, the project has been determined to not meet the definition of an agricultural resource pursuant to the County guidelines for agricultural resources (County of San Diego 2015). Approximately 25 acres of the Empire Ranch property, west of the project site, is designated as Farmland of Local Importance (DOC 2020). Farmland of Local Importance is of importance to the local agricultural economy, as determined by the County's Board of Supervisors and a local advisory committee. Directly east and adjacent to the Farmland of Local Importance is approximately 6.3 acres of land designated as Grazing Land (DOC 2020). The area near the homestead is occasionally used for grazing by horses that are raised on-site. Empire Ranch would continue to operate as a private residence primarily surrounded by open space, along with the proposed project.

Consistent with the County guidelines for agricultural resources, because the required factor of water receives a rating of "low," the project site is not considered a significant agricultural resource (see Appendix M). Additionally, the project site is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance; therefore, impacts would be **less than significant**.

The project would involve other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to a non-agricultural use or could adversely impact the viability of agriculture on land under a Williamson Act Contract (Contract). No other active

agricultural use occurs in the vicinity of the project. In addition, the project is not under a Contract or Agricultural Preserve, nor is the project site located within the vicinity of a Contract or an Agricultural Preserve. The closest Contract or Preserve is approximately 1.1 miles southwest of the project site. According to the County guidelines for agricultural resources, interface conflicts usually only occur within 300 feet. Therefore, the project would not result in the conversion of off-site agricultural resources to a non-agricultural use or adversely impact the viability of agriculture on land under a Contract. There would be **no impact.**

The project proposes to construct and operate a utility-scale solar facility. The project does not propose a school, church, daycare, or other use that involves a heavy concentration of people at certain times of the day within 1 mile of an agricultural operation or land under a Contract. Therefore, there would be **no impact**.

The existing zoning for the project site is General Rural (S92). The S92 Use Regulations are intended to provide appropriate controls for land that is rugged terrain, watershed, dependent on groundwater for a water supply, desert, susceptible to fires and erosion, or subject to other environmental constraints. Agricultural use types are permitted by right in the S92 zone; however, it is not considered an agricultural zoning. The project site is not within Contract lands or parcels. Therefore, the project would not conflict with zoning for agricultural use or a Contract, and **no impact** would occur.

3.2.2 Population and Housing

The project site encompasses approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.93 mile north of the U.S. border. The community of Boulevard is approximately 65 square miles and includes the communities of Manzanita, Tierra del Sol, and Live Oak Springs. As of 2022, the community of Boulevard had a population of 1,673, a total of 756 housing units, and a housing vacancy rate of 12.7% (San Diego Association of Governments 2022).

The entire project site is currently undeveloped. It lies within the boundaries of the privately owned Empire Ranch, an approximately 3,795-acre ranch that stretches from south of Old Highway 80 to the U.S. border with Mexico. Beyond the project site boundaries, Empire Ranch currently contains a ranch compound with residential buildings, structures for livestock, private roads, and an airstrip. The project does not include any residential or commercial uses that would directly increase population growth in the area, nor does it include the extension of infrastructure that would indirectly induce population growth. The project would construct and operate an unoccupied renewable solar energy generation and storage facility to improve electrical reliability for the San Diego region. The electricity generated by the project would be fed directly into the regional San Diego Gas and Electric electricity grid and would not serve or facilitate any growth of the local population directly.

Construction of the project would employ approximately 75 workers per day during the peak construction period for Phase I and 210 workers per day during the peak construction period for Phase II. Local hiring would be encouraged when feasible, so it is not anticipated that all workers would need to relocate to the area. Due to the short-term nature of construction, it is not anticipated that any non-local hires would permanently relocate to the area with their families. Further, occasional operations and maintenance workers are not anticipated to relocate near the project site as the project would operate largely autonomously and would not have any full-time personnel on-site. Thus, the proposed project would not affect population or housing in the project vicinity or in the greater San Diego County area. Therefore, the project would not induce substantial unplanned population growth or displace people or housing. Impacts would be **less than significant**.

3.2.3 Parks and Recreation

The project includes the construction and operation of an unoccupied renewable energy solar and battery storage facility. The project does not include any new parks or recreational facilities, which would increase visitors in the area, nor does it include the extension of infrastructure that would indirectly induce population growth. Construction of the proposed project could temporarily increase the local population by up to 125 workers. Local hires would be encouraged when feasible, so it is not anticipated that the entire construction workforce would require relocation. Further, occasional operations and maintenance workers are not expected to relocate near the project site as the project would operate largely autonomously and would not have any full-time personnel on-site. The project would not substantially increase the demand for parks and recreational facilities, nor would it introduce new or expanded recreational facilities.

A community plan trail, the Jewel Valley Road Pathway, is proposed along Jewel Valley Road, which intersects the project site (County of San Diego 2020). The project does not include construction of this trail. The proposed community plan trail may be temporarily affected during construction, assuming the trail is established by then; however, impacts would be temporary and minimal, if they occur at all. There are no other parks or recreational facilities in the project vicinity. Therefore, the project would not 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. Impacts would be **less than significant**.

CHAPTER 4.0 PROJECT ALTERNATIVES

California Environmental Quality Act (CEQA) Guidelines Section 15126.6(a) requires an Environmental Impact Report (EIR) 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." This chapter discusses a range of alternatives to the proposed Starlight Solar Project (project), including modified locations, alternative designs, and a No Project Alternative.

4.1 Rationale for Alternatives Selection

An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives governed by the rule of reason that will foster informed decision-making and public participation. An EIR is not required to consider alternatives that are infeasible. The State CEQA Guidelines state that factors that may be considered when determining the feasibility of alternatives are "site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context) and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent)" (14 California Code of Regulations [CCR] 15126.6[f][1]).

Additionally, the No Project Alternative must be analyzed. The EIR must explain the rationale for selecting the alternatives to be discussed, identify those that were not carried forward because they were infeasible, and briefly explain why these were not carried forward. The "environmentally superior" alternative to the project must be identified and discussed (see Section 4.6, Environmentally Superior Alternative). If the environmentally superior alternative is the No Project Alternative, the EIR must identify an additional environmentally superior choice among the other alternatives.

4.1.1 Project Objectives

In accordance with the State CEQA Guidelines, appropriate alternatives for EIR analysis are those that meet most of the basic project objectives and avoid or substantially lessen any of the significant environmental effects of the proposed project. Consequently, this section reviews the objectives that were identified for the proposed project and any significant unavoidable environmental effects.

The fundamental purpose of the project is to permit, construct, and operate utility-scale solar energy and battery storage as near as possible to existing infrastructure in eastern San Diego County. The Applicant's specific objectives for the project are as follows:

1. Develop a solar energy project that maximizes energy generation and battery storage potential with a rated capacity of approximately 100 megawatts (MW) and an approximately 217-MW battery energy storage system (BESS) facility that can supply electricity to indirectly reduce the need to emit greenhouse gases (GHGs) caused by the generation of similar quantities of electricity from either existing or future nonrenewable sources to meet existing and future electricity demands, including during on-peak power periods.
2. Develop a renewable solar energy project that can meet the criteria to achieve the maximum state and federal solar investment tax credits, which are intended to decrease the cost of renewable energy generation and delivery, promote the diversity of energy supply, and decrease the dependence of the United States on foreign energy supplies.

3. Assist in achieving the state's Renewables Portfolio Standard (RPS), as mandated under the 100 Percent Clean Energy Act of 2018 (Senate Bill 100), by developing and constructing California RPS-qualified solar generation from eligible renewable energy resources by December 31, 2045.
4. Develop a utility-scale solar energy project that improves electrical reliability for the San Diego region by providing a source of local generation as near as possible to existing San Diego Gas and Electric (SDG&E) transmission infrastructure.
5. Provide a new source of energy storage that assists the state in achieving or exceeding its energy storage targets, consistent with the terms of Assembly Bill 2514, and its GHG reduction targets, consistent with Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279.
6. Site a solar energy project in an area within San Diego County that has excellent solar attributes, including but not limited to high direct normal irradiance, in order to maximize productivity.
7. Develop a utility-scale solar energy facility within San Diego County that supports the economy by investing in the region and creating construction jobs.

4.1.2 Significant Impacts Resulting from the Proposed Project

Alternatives to be considered under CEQA are those that would avoid or substantially lessen one or more of the significant environmental effects identified during evaluation of the proposed project. Many of the adverse environmental impacts described in Chapter 2.0, Significant Environmental Effects of the Proposed Project, were judged to be less than significant with the incorporation of identified mitigation. The environmental impacts described in Chapter 3.0, Environmental Effects Found Not to Be Significant, were judged to be less than significant without the incorporation of mitigation. Table 4-1 summarizes the impacts that would result from the proposed project.

The project would result in potentially significant and unavoidable adverse impacts to Aesthetics (Section 2.1) for which feasible mitigation measures would not reduce the impacts to below a level of significance. Implementation of feasible mitigation measures would reduce potentially significant impacts to the following resource topics to less than significant: Biological Resources (Section 2.2); Cultural Resources (Section 2.3); Hydrology and Water Quality (Section 2.4); Noise (Section 2.5); Tribal Cultural Resources (Section 2.6); and Wildfire (Section 2.7). Therefore, the analyzed alternatives were examined for their ability to reduce the project's significant environmental impacts, as listed above.

As discussed in Section 3.1, after further evaluation, potential impacts to the following resource topics were determined to be less than significant: Air Quality (Section 3.1.1); Energy (Section 3.1.2); Geologic Hazards, Soils, and Paleontological Resources (Section 3.1.3); Greenhouse Gas Emissions (Section 3.1.4); Hazards and Hazardous Materials (Section 3.1.5); Land Use and Planning (Section 3.1.6); Mineral Resources (Section 3.1.7); Public Services (Section 3.1.8); Transportation and Traffic (Section 3.1.9); and Utilities and Service Systems (Section 3.1.10). As discussed in Section 3.2, during the Initial Study process, potential impacts to Agriculture and Forestry Resources; Population and Housing; and Parks and Recreation were determined to be less than significant or have no impact. Therefore, the analysis of these resource topics is not discussed further in this alternatives analysis.

Table 4-1. Summary of Impacts Resulting from the Proposed Project

Environmental Resource	Significant and Unavoidable Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact
Aesthetics	X		
Agriculture and Forestry Resources*			X
Air Quality			X
Biological Resources		X	
Cultural Resources		X	
Energy			X
Geologic Hazards, Soils, and Paleontological Resources			X
Greenhouse Gas Emissions			X
Hazards and Hazardous Materials			X
Hydrology and Water Quality		X	
Land Use and Planning			X
Mineral Resources			X
Noise		X	
Population and Housing*			X
Public Services			X
Parks and Recreation*			X
Transportation			X
Tribal Cultural Resources		X	
Utilities and Service Systems			X
Wildfire		X	

* Based on the evaluation in Section 3.2, Environmental Effects Found Not to be Significant as Part of the Initial Study, the County of San Diego determined that the project would not result in significant impacts related to Agricultural and Forestry Resources, Population and Housing, and Parks and Recreation.

4.2 Alternatives Considered but Rejected

State CEQA Guidelines Section 15126.6(c) recommends that an EIR identify alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection.

According to the State CEQA Guidelines, among the factors that may be considered when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plan or regulatory limitations, jurisdictional boundaries, and whether the Applicant can reasonably acquire, control, or otherwise have access to the alternative site. Several alternatives for the project were rejected from further analysis consistent with Section 15126.6(c) of the State CEQA Guidelines, which state that "Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts. A description of each alternative and the rationale for rejection is provided below.

4.2.1 Wind Energy Alternative

4.2.1.1 Description and Setting

The Wind Energy Alterative would construct a 100-MW wind energy generation on the project site in place of the solar energy facility. Thus, this alternative would install utility-scale wind turbines rather than solar arrays. Similar to the proposed project, the Wind Energy Alternative would also include supporting infrastructure improvements such as transmission lines, an on-site collector substation, a supervisory control and data acquisition (SCADA) system to provide critical operating information (e.g., power production, equipment status and alarms, and meteorological information), a BESS, vehicle access, and water tanks.

The County of San Diego (County) developed a Wind Resource Map (County of San Diego 2013) as a part of the Wind Energy Zoning Ordinance Amendment and General Plan Amendment to the Mountain Empire Subregional Plan (Boulevard Chapter) and Borrego Springs Community Plan to Allow Wind Energy Development, POD 10-007 (Wind Energy Ordinance). The proposed project site is located within a viable wind energy generation location; the mapped wind power resource potential ranges from "good" to "excellent".

4.2.1.2 Ability to Avoid or Reduce Environmental Impacts

Land based utility-scale wind turbines often reach heights upwards of 300 feet above ground level (U.S. Department of Energy 2024). Wind turbines would typically be located on topographically elevated areas that are visible from a distance. The wind turbines would also require increased safety and nighttime lighting and could create potential glare impacts. Considering the potential turbine height and lighting requirements would increase visibility of the project, it is anticipated that the Wind Energy Alterative would increase the severity of the project's significant and unavoidable aesthetic impacts. A wind energy project may require less ground disturbance than the proposed project, which would reduce the cultural resource and tribal cultural resource (TCR) impacts, which are less-than-significant impacts with mitigation. However, it could result in additional biological resource impacts due to avian and bat collisions and mortality, as well as wildlife avoidance of the project area due to increased noise during operations. Additionally, depending on the location of the turbines, the Wind Energy Alterative could result in increased noise impacts to off-site sensitive receptors (i.e., residences) during operations as compared to the proposed project.

4.2.1.3 Ability to Meet Project Objectives

The Wind Energy Alterative would meet some of the project objectives since it would create utility-scale renewable energy facilities and directly assist in achieving or exceeding the state's RPS and GHG reduction objectives or the state's renewable energy storage target (Objective 3 and Objective 5). However, this alternative would not provide additional energy through a solar energy project (Objective 1) or meet the criteria to achieve the maximum state and federal solar investment tax credits (Objective 2). While it would provide electric reliability for the San Diego region through a local source of generation and would support the economy, it would not do so through solar energy (Objective 4 and Objective 7). In addition, this alternative would not provide a solar project in an area with excellent solar attributes (Objective 6).

4.2.1.4 Conclusion

The Wind Energy Alterative would be unlikely to lessen or avoid the significant impacts from the proposed project and would not meet most of the project objectives. In addition, the Wind Energy Alternative may

increase the severity of the project's significant and unavoidable visual impacts, as well as increase impacts to biological resources during operations. Therefore, it was eliminated from further consideration in this EIR.

4.2.2 Alternate Site Location Alternative

Section 15126.6(f)(2) of the State CEQA Guidelines addresses alternative locations for a project. The key question and first step in the analysis is whether any of the significant effects of the proposed project would be avoided or substantially lessened by developing the proposed project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR. Further, State CEQA Guidelines Section 15126.6(f)(1) lists several factors that may be considered when addressing feasibility of alternatives (any alternative, not just alternative locations) and states that "No one of these factors establishes a fixed limit on the scope of reasonable alternatives." In addition, an alternative site need not be considered when implementation is "remote and speculative," such as when the alternative site is beyond the control of a project proponent.

4.2.2.1 Description and Setting

The Alternate Site Location Alternative would consist of placing a 100-MW solar energy generation and storage facility with supporting infrastructure in another location within unincorporated San Diego County. The alternate location would be the parcels identified for the proposed project's biological resources conservation easement (Assessor's Parcel Nos. 659-130-03, 659-140-01, and 659-140-02), which are shown on Figure 1-3 in Chapter 1.0, Project Description, Location, and Environmental Setting. These parcels are within Empire Ranch and are owned by the Applicant. An approximately 3.5-mile overhead/underground generation-tie (gen-tie) line would connect the on-site project collector substation to the SDG&E Boulevard substation. The Alternate Site Location Alternative would be approximately 0.58 mile south of the proposed project site and adjacent to the U.S.–Mexico border.

4.2.2.2 Ability to Meet Project Objectives

The Alternate Site Location Alternative would meet most of the project objectives since it would create a solar energy project with a capacity of up to approximately 100 MW and an approximately 217-MW BESS facility (Objective 1) and meet the criteria to achieve the maximum state and federal solar investment tax credits (Objective 2). It would also assist in achieving the state's RPS and GHG reduction objectives (Objective 3), provide a new source of energy storage (Objective 5), and support the economy (Objective 7). However, the generation facility would not be located as near as possible to SDG&E infrastructure (Objective 4).

4.2.2.3 Ability to Avoid or Reduce Environmental Impacts

The approximately 3.5-mile-long gen-tie line to connect the solar facility to the SDG&E Boulevard substation would require significantly more construction activities, ground disturbance, earthwork, and operational activities (maintenance for a longer gen-tie line) than the proposed project. It would significantly reduce or eliminate impacts to aesthetics since it would be set further back from public views from Old Highway 80 and Interstate 8 (I-8), and from private views from existing residences in Boulevard. However, the Alternate Site Location Alternative would result in environmental impacts that would be more significant than the proposed project to biological resources, cultural resources, hydrology, transportation, and TCRs due to increased area of ground disturbance associated with a longer off-site gen-tie line.

4.2.2.4 Conclusion

Although the Alternate Site Location Alternative would meet most of the project objectives and lessen the significant aesthetics impacts from the proposed project, it would increase the severity of significant impacts in other environmental issue areas. Therefore, it was eliminated from further consideration in this EIR.

4.3 No Project/No Build Alternative

4.3.1 Description and Setting

The No Project/No Build Alternative would not implement the project. No project-related construction or ground disturbance activities would occur, and there would be no changes to the existing land use types or operational characteristics of the project site. None of the direct and cumulative impacts associated with the construction, operation, maintenance, and future decommissioning of the project to any of the resources identified and discussed in Chapter 2.0 would occur. The property could also be developed as a by-right residential project in accordance with the Rural Lands 80 (RL-80) General Plan land use designation and zoning of General Rural (S92), which allow for one dwelling unit per 80 acres.

4.3.2 Comparison of the Effects of the No Project/No Build Alternative to the Proposed Project

4.3.2.1 Aesthetics

Under the No Project/No Build Alternative, the visual conditions of the project site would be retained in their current state. As such, the No Project/No Build Alternative would avoid the project's impacts to aesthetics. This includes avoidance of the significant and unavoidable visual character and quality impacts related to the change in the established rural, vegetated landscape, and unencumbered character of the project site (**Impacts AE-1** and **AE-2**). The No Project/No Build Alternative scenario would also avoid the panoramic view impacts of the project (**Impact AE-3**), including impacts to scenic views from State Route (SR) 94, I-8, and local recreational areas. The No Project/No Build Alternative scenario would also avoid the cumulative impacts of the project (**Impacts AE-CU-1** through **AE-CU-3**). Refer to EIR Section 2.1, Aesthetics, for additional details regarding aesthetic impacts of the project. While the proposed project would include project design features **PDF-AE-1** through **PDF-AE-4** to alleviate adverse effects to visual quality, valued visual character, and panoramic views, these impacts would be significant. Overall, the No Project/No Build Alternative would avoid all significant and unavoidable aesthetic impacts of the project.

In summary, if no development were to occur under the No Project/No Build Alternative, then all aesthetic impacts identified for the project would be avoided. Therefore, impacts of the No Project/No Build Alternative related to aesthetics would be *decreased* in comparison to the proposed project.

4.3.2.2 Biological Resources

The existing site conditions would remain under the No Project/No Build Alternative, including existing biological resources. As such, no impacts to biological resources would occur under this alternative.

Therefore, impacts of the No Project/No Build Alternative related to biological resources would be *decreased* in comparison to the proposed project.

4.3.2.3 Cultural Resources

The No Project/No Build Alternative would not disturb the known and undiscovered archaeological resources on the project site. The No Project/No Build Alternative would not implement the project, and no construction activities, including grading or other earthwork activities, associated with these improvements would occur. This includes avoidance of **Impact CR-1** related to impacts to known archaeological resources, **Impact CR-2** related to undiscovered cultural resources within the potential impact area, and **Impact CR-3** related to the potential impacts to undiscovered human remains during construction. The project would mitigate these impacts to below a level of significance through implementation of **M-CR-1** to **M-CR-3,** which require a cultural open space easement, archaeological and Native American monitoring, and a cultural resources Treatment Agreement and Preservation Plan. While these impacts would be reduced to less-than-significant impacts by proposed mitigation under the project, the No Project/No Build Alternative would avoid impacts to cultural resources since no change to the resources would occur.

Therefore, impacts of the No Project/No Build Alternative related to cultural resources would be *decreased* in comparison to the proposed project.

4.3.2.4 Hydrology and Water Quality

Under the No Project/No Build Alternative, the project site would remain in its current condition and the project would not be built or operated. Under this alternative, no construction activities, including grading or other earthwork activities, associated with these improvements would occur. Thus, the No Project/No Build Alternative would avoid the project's significant hydrology and water quality impacts associated with potential alteration of drainage patterns and flood hazards due to the perimeter fence during construction and operation of the project (**Impact HY-1**). While the project would mitigate this impact to below a level of significance via **M-HY-1**, the No Project/No Build Alternative would avoid impacts to hydrology and drainage patterns since no change to the resources would occur.

Therefore, impacts of the No Project/No Build Alternative related to hydrology and water quality would be *decreased* in comparison to the proposed project.

4.3.2.5 Noise

Under the No Project/No Build Alternative, the project site would remain in its current condition and the project would not be built or operated. Under this alternative, no construction activities, including blasting, would occur. As such, there would be no potential for ground-borne vibration-related impacts to occur. Additionally, this alternative would not result in impacts to noise-sensitive land uses **(Impact N-1)** and would not result in any impacts related to airborne noise during construction or operation (**Impact N-2**). This alternative would also not result in any ground-borne vibration impacts. While the project would mitigate these impacts to below a level of significance via **M-N-1** and **M-N-2,** the No Project/No Build Alternative would entirely avoid noise-related impacts since no noise-generating activities would occur.

Therefore, impacts of the No Project/No Build Alternative related to noise would be *decreased* in comparison to the project.

4.3.2.6 Tribal Cultural Resources

The No Project/No Build Alternative would not implement the project and no construction activities, including grading or other earthwork activities, associated with these improvements would occur. No TCRs have been identified within the project site. However, previously undocumented TCRs could be identified

and impacted during project implementation (**Impact TCR-1**). Under the No Project/No Build Alternative, the potential to uncover previously undocumented TCRs would not occur. While these impacts would be reduced to below a level of significance with implementation of **M-CR-2** and **M-CR-3**, the No Project/No Build Alternative would completely avoid impacts to TCRs identified for the project.

Therefore, impacts of the No Project/No Build Alternative related to TCRs would be *decreased* in comparison to the proposed project.

4.3.2.7 Wildfire

Under the No Project/No Build Alternative, the existing conditions of the project site would be retained in their current state, and no activities associated with construction or operation of the proposed project would occur. As such, the No Project/No Build Alternative would not introduce new potential sources of wildfire ignition at the project site and would avoid significant impacts related to exacerbated wildfire risk and infrastructure (**Impacts WF-1** and **WF-2**). While the project would mitigate these impacts to below a level of significance via **M-WF-1** through **M-WF-6**, the No Project/No Build Alternative would entirely avoid impacts related to wildfire since no change to the project site would occur.

Therefore, impacts of the No Project/No Build Alternative related to wildfire would be *decreased* in comparison to the proposed project.

4.3.3 Relationship to Project Objectives

The No Project/No Build Alternative would meet none of the project objectives. Table 4-2 outlines this alternative's ability to attain the basic project objectives outlined above and in Chapter 1.0, Project Description, Location, and Environmental Setting.

Table 4-2. Attainment of Project Objectives—No Project/No Build Alternative

Project Objective	Does the Alternative Attain the Project Objective?
Develop a solar energy project that maximizes energy generation and battery storage potential with a rated capacity of approximately 100 MW and an approximately 217-MW BESS facility that can supply electricity to indirectly reduce the need to emit GHGs caused by the generation of similar quantities of electricity from either existing or future nonrenewable sources to meet existing and future electricity demands, including during on-peak power periods.	**No.** This alternative would not construct or operate the project and therefore would not generate electricity.
Develop a renewable solar energy project that can meet the criteria to achieve the maximum state and federal solar investment tax credits, which are intended to decrease the cost of renewable energy generation and delivery, promote the diversity of energy supply, and decrease the dependence of the United States on foreign energy supplies.	**No.** This alternative would not construct or operate the project and therefore would not meet the criteria to achieve the maximum state and federal solar investment tax credits.
Assist in achieving the state's RPS, as mandated under the 100 Percent Clean Energy Act of 2018 (Senate Bill 100), by developing and constructing California RPS-qualified solar generation from eligible renewable energy resources by December 31, 2045.	**No.** This alternative would not construct or operate the project and therefore would not generate electricity. The project would not assist in achieving the state's RPS.
Develop a utility-scale solar energy project that improves electrical reliability for the San Diego region by providing a source of local generation as near as possible to existing SDG&E transmission infrastructure.	**No.** This alternative would not construct or operate the project and therefore would not improve electrical reliability for the San Diego region.

Project Objective	Does the Alternative Attain the Project Objective?
Provide a new source of energy storage that assists the state in achieving or exceeding its energy storage targets, consistent with the terms of Assembly Bill 2514, and its greenhouse gas reduction targets, consistent with Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279.	**No.** This alternative would not construct or operate the project and therefore would not provide a new source of energy storage.
Site a solar energy project in an area within San Diego County that has excellent solar attributes, including but not limited to high direct normal irradiance, in order to maximize productivity.	**No.** This alternative would not construct or operate the project and therefore would not maximize productivity.
Develop a utility-scale solar energy facility within San Diego County that supports the economy by investing in the region and creating construction jobs.	**No.** This alternative would not construct or operate the project and therefore would not support the economy.

4.4 Visual Buffer Alternative

4.4.1 Description and Setting

As shown in Figure 4-1, the Visual Buffer Alternative would remove approximately 50 acres of solar arrays from the northernmost portion of the project site within Area A-2. The 50 acres of solar arrays would be relocated off-site to the south of Area A-1, directly west of Tule Jim Lane. This relocation would move arrays south of the ridgeline that runs west to east and bisects Areas A-2 and A-1. This ridgeline is depicted in Section 2.1 Aesthetics, Figure 2.1-3. The project site slopes upward in elevation by an average of 8% from the northern project boundary on Jewel Valley Way to the ridgeline. Under the Visual Buffer Alternative, the fencing, landscaping, and solar arrays would be set back at least 800 feet from Jewel Valley Way to the north. The relocation would provide a visual and topographical buffer between the proposed project and SR 94, Jewel Valley Road, and the private properties.

The Visual Buffer Alternative would include similar numbers of photovoltaic (PV) modules as the proposed project and generate the same amount of electricity. The BESS, switchyard, gen-tie line, and other project components would be the same as the proposed project. To facilitate the installation of equipment foundations, the rocky topography of the relocated area would require an increase in blasting activities, grading, and surface clearing. Therefore, the length of construction may be slightly increased under this alternative, but the daily construction would likely remain the same as the proposed project.

4.4.2 Comparison of the Effects of the Visual Buffer Alternative to the Proposed Project

4.4.2.1 Aesthetics

The Visual Buffer Alternative would relocate 50 acres of solar arrays from the northern boundary of the project site to below Area A-1, west of Tule Jim Road. Under the Visual Buffer Alternative, the fencing, landscaping, and solar arrays would be set back at least 800 feet from Jewel Valley Way to the north. The 800-foot buffer area would remain in its existing condition. Thus, the foreground view would remain undisturbed, and this would provide a visual buffer between the community of Boulevard and the solar facility.

This relocation would reduce visual impacts from Key Observation Point (KOP) 2, which depicts the view from I-8 westbound facing southwest (see Section 2.1, Figure 2.1-3). The ridgeline bisecting Areas A-1 and A-2 is visible in this figure. As shown in the simulation of the proposed project, travelers along this route

would have slightly elevated views of the northern portions of the project with views of the solar arrays, on-site collector substation, SCADA, BESS, and portions of the aboveground gen-tie. With the removal of these solar arrays in the north under the Visual Buffer Alternative, the scale of the project would decrease in visibility from I-8.

This relocation would also reduce visual impacts from KOP 3, which depicts the views from I-8 eastbound facing southeast (see Section 2.1, Figure 2.1-4). As shown in the simulation of the proposed project, northern portions of Area A-2 along Jewel Valley Road and Jewel Valley Way are visible. Similarly, with the removal of these solar arrays in the north under the Visual Buffer Alternative, the scale of the project would decrease in visibility from I-8.

The Visual Buffer Alternative would result in increased visual impacts from KOP 7, which depicts the view from Jewel Valley Road facing north (see Section 2.1, Figure 2.1-7). Under the proposed project, the solar arrays are visible on a hillside approximately 0.5 mile to the north. However, the Visual Buffer Alternative would relocate solar panels directly adjacent to the public road, increasing visual contrast.

With the relocation of the solar arrays, visibility of the project from the north would be largely blocked from certain mid- and long-range public views. This would lessen the visual inconsistency with the existing rural and open space land-use density, architecture, vegetative patterns, and natural forms that currently define landscape quality and character with the site and surroundings. Although the surrounding topography and viewing distance would limit visibility from some viewpoints, the vast scale and overall visual exposure of the project would still be evident from many public viewpoints and would still alter the scenic quality of the landscape. Therefore, while **Impacts AE-1** and **AE-2** would be substantially decreased in severity under the Visual Buffer Alternative, they would remain significant and unavoidable.

KOP 8 represents travel viewers along SR 94. This section of the highway is an Eligible State Scenic Highway, with slightly raised views of the northernmost portion of the project site (see Section 2.1, Figure 2.1-8). The relocation of the solar arrays to the south on the opposite side of the ridgeline would result in the ridgeline largely blocking views of the solar arrays from SR 94. Given the reduction of impacts to the views from I-8 (described above) and SR 94 (both Eligible State Scenic Highways), the significant and unavoidable project impacts to a scenic vista would be reduced to less than significant with the Visual Buffer Alternative (**Impact AE-3**).

The Visual Buffer Alternative would not avoid or substantially lessen the cumulative impacts of the project (**Impacts AE-CU-1** through **AE-CU-3**) due to the vast scale and overall visual exposure of the project. While project design features **PDF-AE-1** through **PDF-AE-4** would alleviate adverse effects to visual quality and valued visual character, these impacts would remain significant and unavoidable .

Therefore, impacts of the Visual Buffer Alternative related to aesthetics would be *decreased* in comparison to the proposed project.

4.4.2.2 Biological Resources

The Visual Buffer Alternative would relocate 50 acres of solar arrays from the northern boundary of the project site to below Area A-1, west of Tule Jim Road. The current area contains redshank chaparral, granitic chamise chaparral, and riparian habitat. The relocation area contains Coast live oak woodlands, redshank chaparral, and granitic chamise chaparral.

Biological resource impacts of the Visual Buffer Alternative would be similar to the proposed project, including impacts to special-status plants (**Impacts BI-SP-1** to **BI-SP-4**), special-status wildlife (**Impacts BI-W-1** to **BI-W-7**), nesting birds and bats (**Impacts BI-W-1 to BI-W-4**), wildlife movement (**Impacts BI-WLC-1** to **WLC-3**), core wildlife area (**Impact BI-W-8**), riparian habitat and sensitive

vegetation communities (**Impacts BI-V-1** to **BI-V-4**), and jurisdictional resources (**Impacts BI- JR-1** to **BI-JR-4**).

The Visual Buffer Alternative would implement mitigation measures **M-BI-1** to **M-BI-11** that include biological monitoring; habitat preservation; construction-related indirect or temporary avoidance measures; resource management plan; nesting bird and bat surveys; bat roost avoidance; prevention of invasive plant species; operations and maintenance guidelines; and noise reduction measures to reduce impacts to below a level of significance.

Overall, the impacts of the Visual Buffer Alternative related to biological resources would be *similar* in comparison to the proposed project.

4.4.2.3 Cultural Resources

The Visual Buffer Alternative would relocate 50 acres of solar arrays from the northern boundary of the project site to below Area A-1, west of Tule Jim Road. The alternative would result in an adjustment in the location of disturbance to the south but would not reduce the overall project footprint. This alternative would still include grading, excavation, and other earthwork activities throughout most of the project site. The existence of the steeper hills and topography at the Visual Buffer Alternative site would require more blasting, grading, and contouring than the proposed project.

The proposed open space easement within Area A-2 in the array area proposed for relocation would remain undisturbed under the Visual Buffer Alternative. The Visual Buffer Alternative would avoid impacts to two isolates (P-37-033309 and P-37-033279), which are not significant. However, as documented in Appendix E.1, Cultural Resources Survey and Inventory, the area south of Area A-1, to which the arrays would be relocated, has not been surveyed, as it is located off-site. However, this off-site area is located near to the existing on-site airstrip and riparian area, where several cultural resources have been identified. Therefore, since the Visual Buffer Alternative would require more blasting, grading, and contouring than the proposed project due to steeper hills and topography at the site, cultural resource impacts are expected to be increased in severity as compared to the proposed project.

The Visual Buffer Alternative's impacts to known archaeological resources (**Impact CR-1)**, undiscovered cultural resources (**Impact CR-2**), and undiscovered human remains (**Impact CR-3**) would be potentially significant. Like the proposed project, the Visual Buffer Alternative would mitigate these impacts to below a level of significance through the implementation of **M-CR-1** to **M-CR-3,** which require a Cultural Open Space Easement, archaeological and Native American monitoring, and a Cultural Resources Treatment Agreement and Preservation Plan.

Overall impacts to cultural resources would remain less than significant with mitigation but would increase in severity with the Visual Buffer Alternative due to the increase in required earthwork. Therefore, impacts of the Visual Buffer Alternative related to cultural resources would be *increased* in comparison to the proposed project.

4.4.2.4 Hydrology and Water Quality

The Visual Buffer Alternative would include grading, excavation, and other earthwork activities throughout most of the project site. However, the topography of the proposed relocation, south of Area A-1 and west of Tule Jim Lane, is highly variable and contains sizable elevation changes. The existence of the steeper hills and topography would require more blasting, grading, and contouring than the proposed project. Therefore, hydrology and water quality impacts of the Visual Buffer Alternative are expected to be increased in severity as compared to the proposed project.

Given the additional earthwork, it is anticipated that the Visual Buffer Alternative would increase impacts related to hydrology associated with potential alteration of drainage patterns and diversion of flow (**Impact HY-1**). However, similar to the proposed project, this impact would be reduced to below a level of significance with implementation of mitigation measure **M-HY-1** that requires hydrologic and hydraulic analyses, stormwater design, and perimeter fencing design that avoids the blockage and/or redirection of storm flows.

Overall impacts to hydrology and water quality would remain less than significant with mitigation but would increase in severity due to the increase in required earthwork. Therefore, impacts of the Visual Buffer Alternative related to hydrology and water quality would be *increased* in comparison to the proposed project.

4.4.2.5 Noise

The Visual Buffer Alternative would include grading, excavation, and other earthwork activities throughout most of the project site. However, the topography of the proposed relocation, south of Area A-1 and west of Tule Jim Lane, is highly variable and contains sizable elevation changes. The existence of the steeper hills and topography would require more blasting, grading, and contouring than the proposed project.

The Visual Buffer Alternative would move solar arrays away from the noise-sensitive land uses to the northwest of the project site; however, the proposed area for relocation would be closer to noise-sensitive land uses to the southeast of the project site. As such, it is anticipated that the Visual Buffer Alternative would have similar operational impacts to noise-sensitive land uses as a result of stationary equipment compared to the proposed project (**Impact N-1**). However, given the additional required earthwork, it is anticipated that the Visual Buffer Alternative would increase construction impacts related to airborne noise (**Impact N-2**). Like the proposed project, the operational and construction period impacts would be mitigated to less than significant through the implementation of mitigation measures **M-N-1** and **M-N-2.**

Operational noise impacts of the Visual Buffer Alternative would remain less than significant with mitigation and would be similar to the proposed project. Construction noise-related impacts of the Visual Buffer Alternative would remain less than significant with mitigation, but would increase in severity. Therefore, overall, the impacts of the Visual Buffer Alternative related to noise would be *increased* in comparison to the proposed project.

4.4.2.6 Tribal Cultural Resources

The Visual Buffer Alternative would result in an adjustment in the location of disturbance to the south but would not reduce the overall project footprint. This alternative would still include grading, excavation, and other earthwork activities throughout most of the project site, and to a greater extent than the proposed project due to steeper hills and topography. No TCRs have been identified within the proposed project site. However, previously undocumented TCRs could be identified and impacted during project implementation (**Impact TCR-1**). Under the Visual Buffer Alternative, the potential to uncover previously undocumented TCRs would still occur. However, similar to the proposed project, this impact would be reduced to below a level of significance with implementation of mitigation measure **M-CR-2** (Treatment Agreement and Preservation Plan) and **M-CR-3** (Archaeological and Native American Monitoring).

Therefore, impacts of the Visual Buffer Alternative related to tribal cultural resources would be *similar* in comparison to the proposed project.

4.4.2.7 Wildfire

The Visual Buffer Alternative would relocate 50 acres of solar arrays from the northern boundary of the project site to below Area A-1, west of Tule Jim Road. The alternative would result in an adjustment in the location of disturbance to the south but would not reduce the overall project footprint.

As the construction and operation activities associated with the Visual Buffer Alternative would be relatively unchanged compared to the proposed project, wildfire risk at the project site would be unchanged. Like the proposed project, the Visual Buffer Alternative would introduce new potential sources of wildfire ignition at the project site, which would result in impacts related to exacerbated wildfire risk and infrastructure (**Impacts WF-1** through **WF-2**). Both the Visual Buffer Alternative and the proposed project would mitigate these impacts to below a level of significance via **M-WF-1** through **M-WF-6**.

Overall, impacts of the Visual Buffer Alternative related to wildfire would be *similar* in comparison to the proposed project.

4.4.3 Relationship to Project Objectives

The Visual Buffer Alternative would meet six of the project objectives. Table 4-3 outlines this alternative's ability to attain the basic project objectives outlined above and in Chapter 1.0, Project Description, Location, and Environmental Setting.

Table 4-3. Attainment of Project Objectives—Visual Buffer Alternative

Project Objective	Does the Alternative Attain the Project Objective?
Develop a solar energy project that maximizes energy generation and battery storage potential with a rated capacity of approximately 100 MW and an approximately 217-MW BESS facility that can supply electricity to indirectly reduce the need to emit GHGs caused by the generation of similar quantities of electricity from either existing or future nonrenewable sources to meet existing and future electricity demands, including during on-peak power periods.	**Yes.** This alternative would construct and operate the project with a rated capacity of up to approximately 100 MW and an approximately 217-MW BESS.
Develop a renewable solar energy project that can meet the criteria to achieve the maximum state and federal solar investment tax credits, which are intended to decrease the cost of renewable energy generation and delivery, promote the diversity of energy supply, and decrease the dependence of the United States on foreign energy supplies.	**Yes.** This alternative would meet the criteria to achieve the maximum state and federal solar investment tax credits.
Assist in achieving the state's RPS, as mandated under the 100 Percent Clean Energy Act of 2018 (Senate Bill 100), by developing and constructing California RPS-qualified solar generation from eligible renewable energy resources by December 31, 2045.	**Yes.** This alternative would assist in achieving the state's RPS.
Develop a utility-scale solar energy project that improves electrical reliability for the San Diego region by providing a source of local generation as near as possible to existing SDG&E transmission infrastructure.	**Partially.** This alternative would construct and operate the project, but it would not locate the facilities as near as possible to SDG&E transmission infrastructure, reducing efficiency.
Provide a new source of energy storage that assists the state in achieving or exceeding its energy storage targets, consistent with the terms of Assembly Bill 2514, and its greenhouse gas reduction targets, consistent with Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279.	**Yes.** This alternative would construct and operate the project and provide a new source of energy storage.

Project Objective	Does the Alternative Attain the Project Objective?
Site a solar energy project in an area within San Diego County that has excellent solar attributes, including but not limited to high direct normal irradiance, in order to maximize productivity.	**Yes.** This alternative would construct and operate the project in an area that has excellent solar attributes.
Develop a utility-scale solar energy facility within San Diego County that supports the economy by investing in the region and creating construction jobs.	**Yes.** This alternative would construct and operate the project within San Diego County that supports the economy.

4.5 Reduced Development Alternative

4.5.1 Description and Setting

Under the Reduced Development Alternative, as shown in Figure 4-2, the development footprint would be 538 acres, a reduction of 50 acres from the proposed project. This alternative would remove approximately 50 acres of solar arrays and infrastructure in the northern portion of the project (Areas A-1 and A-2). This reduction in development footprint would remove solar arrays from the northern side of the ridgeline and provide a visual buffer between the proposed solar facility, Old Highway 80, I-8, and the private properties, as well as a noise buffer from residential uses during construction and operations.

This reduction in PV modules would reduce the amount of energy generated by this alternative. The Reduced Development Alternative would generate 90 MW compared to the proposed project's generation of 100 MW, which is a reduction of 10 MW. The capacity of the BESS, including the number of battery containers, would also likely be reduced under this alternative. The switchyard, on-site collector substation, gen-tie line, and other project components would be the same as the proposed project. The overall length of construction would be reduced under this alternative, but the daily construction activities would remain the same as the proposed project.

4.5.2 Comparison of the Effects of the Reduced Development Alternative to the Proposed Project

4.5.2.1 Aesthetics

The Reduced Development Alternative would remove 50 acres of solar arrays from the northern boundary of the project site. Under this alternative, the fencing, landscaping, and solar arrays would be set back at least 800 feet from Jewel Valley Way to the north. The 800-foot buffer area would remain in its existing condition. Thus, the foreground view would remain undisturbed, and this would provide a visual buffer between the Boulevard community and the project.

This removal would reduce visual impacts from KOP 2, which depicts the view from I-8 westbound facing southwest (see Section 2.1, Figure 2.1-3). The ridgeline bisecting Areas A-1 and A-2 is visible in this figure. As shown in the simulation of the proposed project, travelers along this route would have slightly elevated views of the northern portions of the project with views of the solar arrays, on-site collector substation, SCADA, BESS, and portions of the aboveground gen-tie. With the removal of these solar arrays in the north under the Reduced Development Alternative, the scale of the project would decrease in visibility from I-8.

This removal would also reduce visual impacts from KOP 3, which depicts the views from I-8 eastbound facing southeast (see Section 2.1, Figure 2.1-4). As shown in the simulation of the proposed project, northern portions of Area A-2 along Jewel Valley Road and Jewel Valley Way are visible. Similarly, with

the removal of these solar arrays in the north under the Reduced Development Alternative, the scale of the project would decrease in visibility from I-8.

With the removal of the solar arrays, visibility of the project from the north would be largely blocked from certain mid- and long-range public views. This would lessen the visual inconsistency with the existing rural and open space land-use density, architecture, vegetative patterns, and natural forms that currently define landscape quality and character with the site and surroundings. Although the surrounding topography and viewing distance would limit visibility from some viewpoints, the vast scale and overall visual exposure of the project would still be evident from many public viewpoints and would fundamentally alter the scenic quality of the landscape. Therefore, while **Impacts AE-1** and **AE-2** would be decreased in severity under the Reduced Development Alternative as compared to the project, they would remain significant and unavoidable.

KOP 8 represents the travel route motorists and viewers would experience along SR 94. This section of the highway is an Eligible State Scenic Highway, with slightly raised views of the northernmost portion of the project site (see Section 2.1, Figure 2.1-8). Relocating the solar arrays to the south on the opposite side of the ridgeline would largely block views of the arrays from SR 94. Given the reduction of impacts to views from I-8 (described above) and SR 94 (both Eligible State Scenic Highways), the significant and unavoidable project impacts to a scenic vista would be reduced to less than significant with the Reduced Development Alternative (**Impact AE-3**).

The Reduced Development Alternative would not avoid or substantially lessen the cumulative impacts of the project (**Impacts AE-CU-1** through **AE-CU-4**). While project design features **PDF-AE-1** through **PDF-AE-4** would alleviate adverse effects to visual character and quality and panoramic view impacts, these impacts would be significant and unavoidable.

Overall, impacts of the Reduced Development Alternative related to aesthetics would be *decreased* in comparison to the proposed project.

4.5.2.2 Biological Resources

Under the Reduced Development Alternative, the impact area would be reduced by 50 acres in the northern portion of the project site (Areas A-1 and A-2). This reduction in the development footprint would result in the preservation of existing habitat and vegetation communities in the northern portion of the site, maintaining its current biological function.

The alternative would avoid direct impacts to biological resources within the 50-acre area through reduced ground disturbance, vegetation removal, and habitat modification. This represents an approximate 8.5% reduction in the overall impact area compared to the proposed project. Areas A-1 and A-2 contain similar biological resources to the rest of the project site, including potential habitat for special-status species.

However, construction activities under this alternative could still result in significant indirect impacts to biological resources, including the following:

- Special-status plants and their habitat (**Impacts BI-SP-1** to **BI-SP-4**)
- Special-status wildlife species (**Impacts BI-W-1** to **BI-W-7**)
- Nesting birds and bats (**Impacts BI-W-1** to **BI-W-4**)
- Wildlife movement corridors (**Impacts BI-WLC-1** to **BI-WLC-3**)
- Core wildlife areas (**Impact BI-W-8**)

- Riparian habitat and sensitive vegetation communities **(Impacts BI-V-1** to **BI-V-4**)
- Jurisdictional resources (Impacts **BI-JR-1** to **BI-JR-4**)

These indirect impacts, though reduced in severity due to the smaller development footprint, could still result in significant effects on biological resources, primarily through habitat fragmentation, disturbance from construction activities (such as noise or vibration), and disruptions to wildlife movement and nesting behaviors. The alternative would implement the same mitigation measures as the proposed project **(M-BI-1** to **M-BI-11**) to reduce impacts to below a level of significance.

While the overall intensity of direct impacts would be reduced under this alternative, the indirect impacts would remain significant but mitigable. Implementation of the required mitigation measures would reduce all biological resource impacts to below a level of significance, consistent with the proposed project.

Therefore, the impacts of the Reduced Development Alternative related to biological resources would be *decreased* in comparison to the proposed project.

4.5.2.3 Cultural Resources

Under the Reduced Development Alternative, the impact area would be reduced by 50 acres in the northern portion of the project site. The proposed open space easement in the array area proposed for relocation would remain undisturbed. The Reduced Development Alternative would avoid impacts to two isolates (P-37-033309 and P-37-033279), which are not significant. Given this alternative would reduce impacts by 50 acres, or 8.5% relative to the project, the potential impacts to undiscovered cultural resources would be reduced. Thus, the Reduced Project Alternative's impacts to known archaeological resources **(Impact CR-1)**, undiscovered cultural resources (**Impact CR-2**), and undiscovered human remains (**Impact CR-3**) would be less than the project. However, these impacts would remain potentially significant. The Reduced Development Alternative would mitigate these impacts to below a level of significance through implementation of **M-CR-1** to **M-CR-3,** which require a cultural open space easement, archaeological and Native American monitoring, and a cultural resources Treatment Agreement and Preservation Plan.

Therefore, impacts of the Reduced Development Alternative related to cultural resources would be *similar* in comparison to the proposed project.

4.5.2.4 Hydrology and Water Quality

The Reduced Development Alternative would include grading, excavation, and other earthwork activities throughout the reduced project development footprint, resulting in a reduction of 50 acres of grading. Similar to the proposed project, the Reduced Development Alternative would result in significant hydrology and water quality impacts associated with potential alteration of drainage patterns and flood hazards due to the perimeter fence during construction and operation of the project (**Impact HY-1**). As for the project, the impact would be reduced to a less-than-significant level through implementation of mitigation measure **M-HY-1,** which requires hydrologic and hydraulic analyses, stormwater design, and perimeter fencing design that avoids the blockage and/or redirection of storm flows.

Overall impacts of the Reduced Development Alternative to hydrology and water quality would be decreased in severity as compared to the project but would remain less than significant with mitigation. Therefore, impacts of the Reduced Development Alternative related to hydrology and water quality would be *similar* in comparison to the proposed project.

4.5.2.5 Noise

The Reduced Development Alternative would include grading, excavation, and other earthwork activities throughout the reduced project development footprint, resulting in a reduction of 50 acres of grading. Removing 50 acres from the development footprint would reduce the overall length of construction activities. However, daily construction activities would be similar for the Reduced Development Alternative and the proposed project. As such, it is anticipated that the Reduced Development Alternative would have similar impacts related to noise-sensitive land uses compared to the proposed project (**Impact N-1** and **Impact N-2**), albeit slightly reduced due to a shortened construction timeline. Like the proposed project, these impacts would be mitigated to less than significant through the implementation of mitigation measures **M-N-1** and **M-N-2.**

Overall noise-related impacts would remain less than significant with mitigation but would decrease in severity. Therefore, the impacts of the Reduced Development Alternative related to noise would be *similar* in comparison to the proposed project.

4.5.2.6 Tribal Cultural Resources

The Reduced Development Alternative would reduce the overall project footprint and potential construction-related impacts on TCRs may be less than those for the proposed project. However, the alternative would still include grading, excavation, and other earthwork activities throughout most of the project site. No TCRs have been identified within the project site. However, previously undocumented TCRs could be identified and impacted during project implementation (**Impact TCR-1**). Under the Reduced Development Alternative, the potential to uncover previously undocumented TCRs would still occur. However, similar to the proposed project, this impact would be reduced to below a level of significance with implementation of mitigation measure **M-CR-2** (Treatment Agreement and Preservation Plan) and **M-CR-3** (Archaeological and Native American Monitoring).

Therefore, impacts of the Visual Buffer Alternative related to tribal cultural resources would be *similar* in comparison to the proposed project.

4.5.2.7 Wildfire

Under the Reduced Development Alternative, the impact area would be reduced by 50 acres in the northern portion of the project site. As the construction and operation activities associated with the Reduced Development Alternative would be relatively unchanged compared to the proposed project, wildfire risk at the project site would be unchanged. Like the proposed project, the Reduced Development Alternative would introduce new potential sources of wildfire ignition at the project site, which would result in impacts related to exacerbated wildfire risk and infrastructure (**Impacts WF-1** through **WF-2**). Both the Reduced Development Alternative and the proposed project would mitigate these impacts to below a level of significance via **M-WF-1** through **M-WF-6**.

Therefore, impacts of the Reduced Development Alternative related to wildfire would be *similar* in comparison to the proposed project.

4.5.3 Relationship to Project Objectives

The Reduced Development Alternative would meet five of the project objectives. Table 4-4 outlines this alternative's ability to attain the basic project objectives outlined above and in Chapter 1.0, Project Description, Location, and Environmental Setting.

Table 4-4. Attainment of Project Objectives—Reduced Development Alternative

Project Objective	Does the Alternative Attain the Project Objective?
Develop a solar energy project that maximizes energy generation and battery storage potential with a rated capacity of approximately 100 MW and an approximately 217-MW BESS facility that can supply electricity to indirectly reduce the need to emit GHGs caused by the generation of similar quantities of electricity from either existing or future nonrenewable sources to meet existing and future electricity demands, including during on-peak power periods.	**No.** This alternative would construct and operate a solar energy project and BESS facility with a rated capacity of approximately 90 MW. Therefore, the alternative would not maximize the potential solar generation and energy storage capacity of the site to same degree as the proposed project.
Develop a renewable solar energy project that can meet the criteria to achieve the maximum state and federal solar investment tax credits, which are intended to decrease the cost of renewable energy generation and delivery, promote the diversity of energy supply, and decrease the dependence of the United States on foreign energy supplies.	**Yes.** This alternative would meet the criteria to achieve the maximum state and federal solar investment tax credits.
Assist in achieving the state's RPS, as mandated under the 100 Percent Clean Energy Act of 2018 (Senate Bill 100), by developing and constructing California RPS-qualified solar generation from eligible renewable energy resources by December 31, 2045.	**Yes.** This alternative would assist in achieving the state's RPS.
Develop a utility-scale solar energy project that improves electrical reliability for the San Diego region by providing a source of local generation as near as possible to existing SDG&E transmission infrastructure.	**Partially.** This alternative construct and operate the project but it would not locate the facilities as near as possible to SDG&E transmission infrastructure.
Provide a new source of energy storage that assists the state in achieving or exceeding its energy storage targets, consistent with the terms of Assembly Bill 2514, and its greenhouse gas reduction targets, consistent with Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279.	**Yes.** This alternative would construct and operate the project and provide a new source of energy storage.
Site a solar energy project in an area within San Diego County that has excellent solar attributes, including but not limited to high direct normal irradiance, in order to maximize productivity.	**Yes.** This alternative would construct and operate the project in an area that would maximize productivity.
Develop a utility-scale solar energy facility within San Diego County that supports the economy by investing in the region and creating construction jobs.	**Yes.** This alternative would construct and operate the project within San Diego County that supports the economy.

4.6 Environmentally Superior Alternative

The State CEQA Guidelines require an analysis of alternatives to identify an Environmentally Superior Alternative among the alternatives evaluated in the EIR. The Environmentally Superior Alternative is the alternative that would minimize adverse impacts on the environment. Based on the evaluation of the alternatives in this chapter and the comparison of impacts, as summarized in Table 4-5, both the Visual Buffer Alternative and the Reduced Development Alternative would minimize the project's adverse impacts on the environment in a similar manner; however, the Reduced Development Alternative reduces the project's adverse impacts to a further degree than the Visual Buffer Alternative. As directed by the State CEQA Guidelines Section 15126.6(e)(2):

> If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Therefore, the Reduced Development Alternative would be the Environmentally Superior Alternative, because it would be the built alternative that minimizes the project's adverse impacts on the environment.

Table 4-5. Comparison of Impact Conclusions Among Alternatives

Issue Area	No Project/ No Build Alternative	Visual Buffer Alternative	Reduced Development Alternative
Aesthetics	Decreased	Decreased: Impact AE-3 would be reduced to less than significant	Decreased: Impact AE-3 would be reduced to less than significant
Biological Resources	Decreased	Similar	Similar: Impacts would remain less than significant with mitigation, but the severity of impacts would be decreased
Cultural Resources	Decreased	Similar: Impacts would remain less than significant with mitigation, but the severity of impacts would be increased	Similar: Impacts would remain less than significant with mitigation, but the severity of impacts would be decreased
Hydrology and Water Quality	Decreased	Similar: Impacts would remain less than significant with mitigation, but the severity of impacts would be increased	Similar: Impacts would remain less than significant with mitigation, but the severity of impacts would be decreased
Noise	Decreased	Similar: Impacts would remain less than significant with mitigation, but the severity of impacts would be increased	Similar: Impacts would remain less than significant with mitigation, but the severity of impacts would be decreased
Tribal Cultural Resources	Decreased	Similar	Similar
Wildfire	Decreased	Similar	Similar
Meets Project Objectives?	*No; none of the project objectives (Objectives 1 through 7) would be met*	*Partially; one objective (Objective 4) would be partially met, and six objectives (Objective 1 through 3 and 5 through 7) would be met*	*Partially; one objective (Objective 1) would not be met, one objective (Objective 4) would be partially met , and five objectives (Objective 2, 3, and 5 through 7) would be met*

The Visual Buffer Alternative would meet six of the project objectives and partially meet one of the project objectives. Compared to the proposed project, the Visual Buffer Alternative would decrease aesthetics impacts. Although impacts to visual quality and valued visual character by the Visual Buffer Alternative and proposed project would be significant and unavoidable (**Impact AE-1** and **Impact AE-2**), impacts to scenic vistas by the Visual Buffer Alternative would be reduced to less than significant after mitigation (**Impact AE-3**). As stated previously, the relocation of the solar arrays would limit visibility of the project from the north from certain mid- and long-range public views. However, given the variable topography in the proposed relocation area, the Visual Buffer Alternative would result in increased earthwork and grading. Although this increased earthwork and grading could increase the severity of impacts to cultural resources, hydrology and drainage patterns, and noise-sensitive land uses from construction noise, impacts would be less than significant with mitigation with the Visual Buffer Alternative, as for the proposed project.

Compared to the project, the Reduced Development Alternative would have decreased impacts to aesthetics and would have decreased impacts to biological resources, cultural resources, hydrology and drainage patterns, and construction noise due to decreased earthwork and grading activities. However, mitigation would still be required of the Reduced Development to reduce these impacts to less than significant, as for the proposed project. While the Reduced Development Alternative would meet five of the stated project objectives, it would not meet the objective (Objective 1) of the project to maximize the solar energy generation of the project site, and it would only partially meet the objective (Objective 4) to provide a utility-scale solar energy project that improves electrical reliability for the San Diego region by providing a source of local generation as near as possible to existing SDG&E transmission infrastructure.

While the Reduced Development Alternative would decrease impacts to visual quality and valued visual character to a further degree than the Visual Buffer Alternative, neither alternative would entirely avoid the significant and unavoidable impact or reduce it to a less-than-significant level. The Visual Buffer Alternative would meet or partially meet the stated project objectives, but it would increase the severity of impacts to cultural resources, hydrology and drainage patterns, and construction noise; however, these impacts would be less than significant with mitigation. On the other hand, the Reduced Development Alternative would decrease the severity of impacts to biological resources, cultural resources, hydrology and drainage patterns, and construction noise, but these impacts would be less than significant with mitigation, and the Reduced Development Alternative would not meet the objective (Objective 1) of the project to maximize the solar energy generation of the project site.

Based strictly on an analysis of the relative environmental impacts, the Reduced Development Alternative is considered the Environmentally Superior Alternative. The County will consider the whole of the record when considering the project including, but not limited to, public comment and testimony. The County may select the project as proposed, an alternative, or a specified combination of particular elements identified in the alternatives, as the approved project. In all scenarios, the Mitigation Monitoring and Reporting Program (MMRP) would be applied to the approved project.

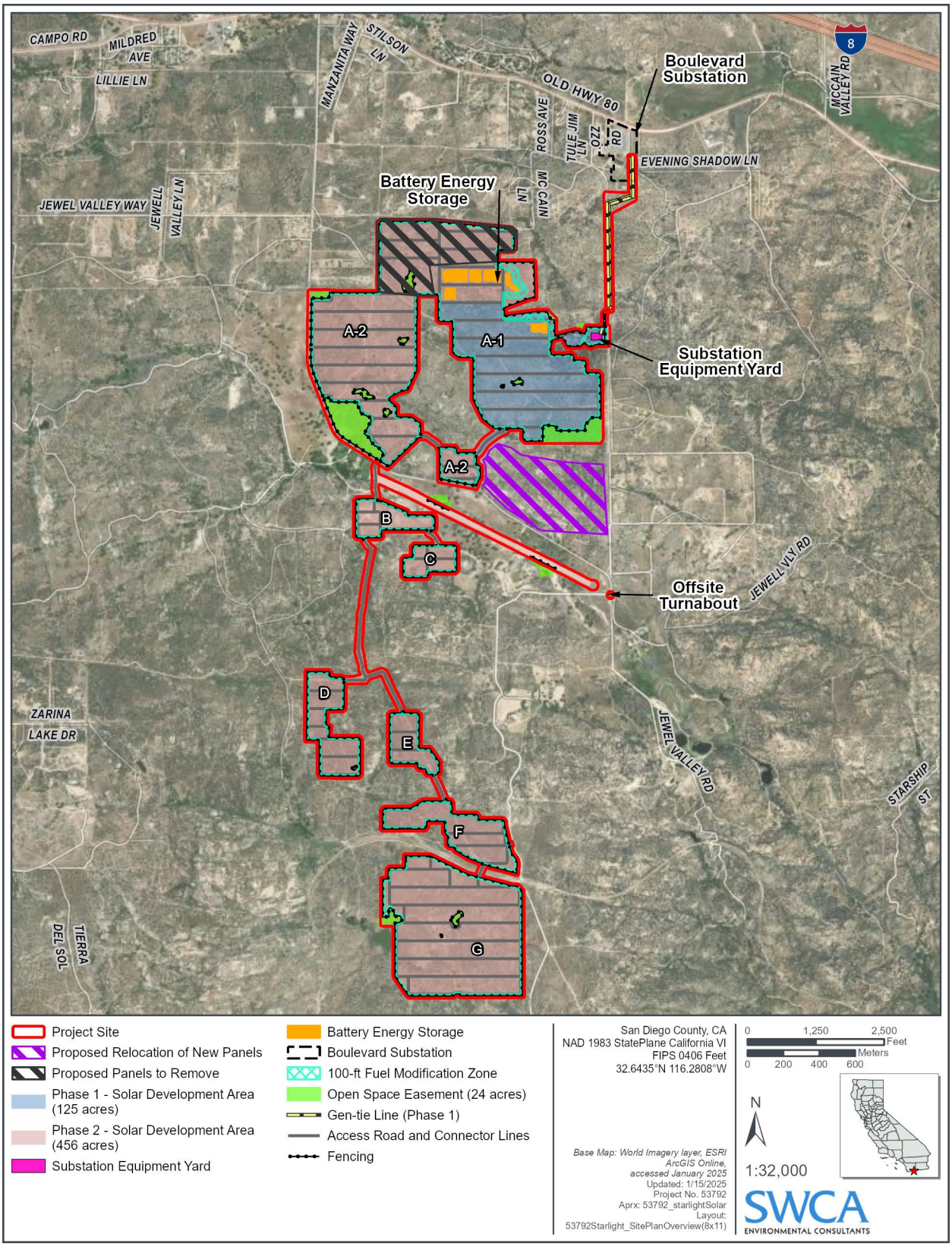

Figure 4-1. Visual Buffer Alternative

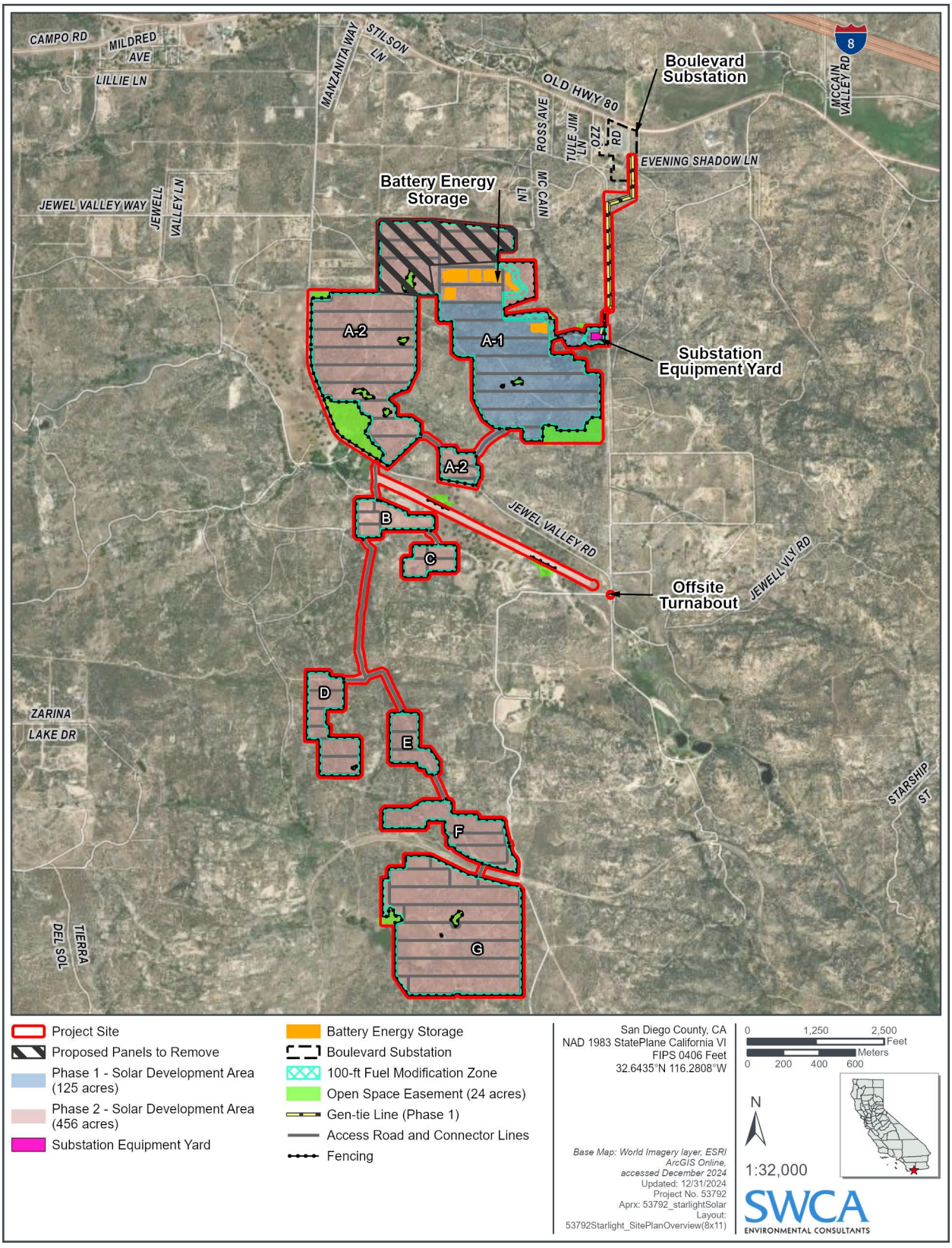

Figure 4-2. Reduced Development Alternative

CHAPTER 5.0 LIST OF MITIGATION MEASURES

The following is a list of mitigation measures to be implemented by the project. The mitigation measures are listed by each environmental topic addressed in Chapter 2 of this Environmental Impact Report (EIR).

5.1 Aesthetics

No feasible mitigation measures have been identified to reduce the visual impacts of the project to a less than significant level.

5.2 Biological Resources

M-BI-1 Biological Monitoring.

1. To prevent inadvertent disturbance to sensitive resource areas outside the approved area of impact, a County-approved biologist (Project Biologist) shall be contracted to perform biological monitoring during grading, clearing, grubbing, trenching, construction, and decommissioning activities. The contract for biological monitoring will be provided to the County by the Applicant and shall include an agreement that this will be completed, and a memorandum of understanding (MOU) between the biological consulting company and the County shall be executed. The contract shall include a cost estimate for the monitoring work and reporting.
    a. The Project Biologist shall perform the monitoring duties before, during, and after construction pursuant to the most current version of the County guidelines (County of San Diego 2010b). In addition to performing monitoring duties pursuant to the most current version of the County guidelines, the Project Biologist shall also perform the following duties:
        i. Conduct required preconstruction surveys as applicable and outlined M-BI-5 below.
        ii. Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas prior to clearing, grubbing, or grading and clarifying that the Project Biologist has the authority to halt work that could harm or harass a protected species. Worker Environmental Awareness Program training will be provided by the Project Biologist for minimizing harm to or harassment of wildlife encountered during construction with the contractor and other key construction personnel prior to clearing, grubbing, or grading.
        iii. Review the construction area in the field with the contractor in accordance with the final grading plan and conduct a field review of the staking to be set by the surveyor, designating the limits of all construction activity prior to clearing, grubbing, or grading.
        iv. Monitor vegetation clearing, grubbing, and grading to ensure against direct and indirect impacts on biological resources that are intended to be protected and preserved.
        v. Flush special-status species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing

and earth-moving activities. If brush-clearing and earthmoving activities take place within the bird breeding season, the process outlined in M-BI-5 will be followed.

vi. Verify that grading plans include a stormwater pollution prevention plan (SWPPP) (if required pursuant to provisions of the State Water Resources Control Board 2009-0009-DWQ Construction General Permit, or equivalent applying the standards set forth in the County of San Diego Stormwater Standards Manual) to address hydrology impacts; see M-BI-6.

vii. Periodically monitor the construction site to see that dust is minimized according to the Fugitive Dust Control Plan and that temporarily impacted areas are revegetated as soon as possible.

viii. Periodically monitor the construction site to verify that light fixtures are directed away from open space and are shielded.

ix. Monitor the construction site so that cover and/or escape routes for wildlife from excavated areas are provided daily during vegetation clearing, grubbing, and grading. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighted down with sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and prior to sealing the exposed area at the end of the day) by a qualified biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.

x. Except as stated otherwise herein, biological monitoring is daily during vegetation clearing, grubbing, and grading. Once the PV field construction commences, the monitoring shall be weekly.

b. The cost of the monitoring shall be added to the grading bonds or bonded separately with County Planning and Development Services (PDS).

Documentation: The Applicant shall provide a copy of the biological monitoring contract, cost estimate, and MOU to the PDS. Additionally, the cost amount of the monitoring work shall be added to the grading bond cost estimate.

Timing: In each phase, prior to approval of any grading and or improvement plans and issuance of any grading or construction permits.

Monitoring: The PDS shall review the contract, MOU, and cost estimate or separate bonds for compliance with this condition. The cost estimate should be forwarded to the PDS project manager, for inclusion in the grading bond cost estimate, and grading bonds. The County Department of Public Works (DPW)/PDS shall add the cost of the monitoring to the grading bond costs.

2. To ensure that the biological monitoring occurs during the grading phase of the project, weekly monitoring logs will be provided to the Applicant and PDS project manager, and a final biological monitoring report shall be prepared. The Project Biologist shall prepare the final biological monitoring report. The reports shall

substantiate the supervision of the grading activities and confirm that grading or construction activities did not impact any additional areas or any other sensitive biological resources. The final report shall conform to County guidelines (County of San Diego 2010b) and include the following items:

a. Photos of the temporary fencing or flagging that was installed during the trenching, grading, or clearing activities
b. Monitoring logs showing the date and time that the monitor was on-site
c. Photos of the site after the grading and clearing activities

Documentation: The Project Biologist shall prepare the final report and submit it to the PDS for review and approval.

Timing: Prior to any occupancy, final grading release, or use of the premises in reliance of this permit, the final report shall be approved.

Monitoring: The PDS shall review the final report for compliance with this condition and the report format guidelines. Upon approval of the report, PDS shall inform DPW that the requirement is complete, and the bond amount can be relinquished. If the monitoring was bonded separately, then PDS shall inform the bonding entity to release the bond back to the Applicant.

3. Compliance with this measure shall be required during decommissioning activities.

M-BI-2 **Temporary Construction Fencing.** Prior to issuance of permits in each phase, including clearing, grubbing, grading, and/or construction permits, the Project Applicant or its designee shall install fencing wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the Project Biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on plans. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence to the satisfaction of the Director of the San Diego County PDS (or designee) that work was conducted as authorized under the approved permits and associated plans.

M-BI-3 **Habitat Preservation.** To mitigate for impacts to sensitive vegetation communities, habitat for plant and wildlife species, and special-status plant and wildlife individuals, the Applicant shall provide an off-site biological open space easement (see M-BI-4 regarding the resource management plan [RMP] for the mitigation site).

To protect sensitive biological resources, pursuant to the ECMSCP, RPO, and CEQA, a biological open space easement will be granted over 447.93 acres of sensitive vegetation communities, special-status plant species, and habitat for special-status species. The project is estimated to impact sensitive vegetation communities that require mitigation as summarized in Table 10 of the Biological Resources Report (see below).

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Off-site Impacts (acres)	Impact Neutral (acres)	Total Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)	Preserved On-site (acres)	Off-site Mitigation (acres)
Phase 1									
Granitic Northern Mixed Chaparral (37131)	99.58	92.54	0	7.04	92.54	0.5:1	46.27	0	46.27
Redshank Chaparral (37300)	24.53	24.53	0	0	24.53	1:1	24.53	0	24.53
Granitic Chamise Chaparral (37210)	3.03	3.03	0	0	3.03	0.5:1	1.52	0	1.52
Montane Buckwheat Scrub (37K00)	1.97	1.97	0	0	1.97	1:1	1.97	0	1.97
Field/Pasture (18310)	0	0	0	0	0	0.5:1	0	0	0
Big Sagebrush Scrub (35210)	0	0	0	0	0	2:1	0	0	0
Disturbed (11300)	0	0	0	0	0	None	0	0	0
Bare Ground	2.56	2.52	0	0.04	2.52	None	0	0	0
Urban/ Developed (12000)	0	0	0	0	0	None	0	0	0
Open Coast Live Oak Woodland (71161)	0.32	0.32	0	0	0.32	3:1	Included in oak root zone mitigation	0	Included in oak root zone mitigation
Non-native Grassland (42200)	0	0	0	0	0	0.5:1	0	0	0
Tamarisk Scrub (63810)	0	0	0	0	0	3:1	0	0	0
Freshwater Seep (45400)	0	0	0	0	0	3:1	0	0	0
Southern Riparian Scrub (63300)	0	0	0	0	0	3:1	0	0	0
Freshwater (64140)	0	0	0	0	0	3:1	0	0	0
Coast Live Oak Woodland (71160)	0	0	0	0	0	3:1	0	0	0
Alkali Marsh (52300)	0	0	0	0	0	3:1	0	0	0
Oak Root Zone*	0.91	0.91	0	0	0.94	3:1	2.82	0	2.82
Total	**131.99**	**124.91**	**0**	**7.08**	**124.91**		**77.11**	**0**	**77.11**

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Off-site Impacts (acres)	Impact Neutral (acres)	Total Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)	Preserved On-site (acres)	Off-site Mitigation (acres)
Phase 2									
Granitic Northern Mixed Chaparral (37131)	136.91	126.33	0	49.68	126.33	0.5:1	63.17	0	63.17
Redshank Chaparral (37300)	121.67	119.35	0	2.71	119.35	1:1	119.35	0	119.35
Granitic Chamise Chaparral (37210)	62.04	61.56	0	7.41	61.56	0.5:1	30.78	0	30.78
Montane Buckwheat Scrub (37K00)	52.92	51.14	0	0.07	51.14	1:1	51.14	0	51.14
Field/Pasture (18310)	28.10	27.98	0	0	27.98	0.5:1	13.99	0	13.99
Big Sagebrush Scrub (35210)	15.38	15.38	0	0	15.38	2:1	30.76	0	30.76
Disturbed (11300)	10.01	10.01	0	0	10.01	None	0	0	0
Bare Ground	22.17	21.53	0	0.47	21.53	None	0	0	0
Urban/ Developed (12000)	0.03	0	0	0	0	None	0	0	0
Open Coast Live Oak Woodland (71161)	4.32	4.31	0	0	4.31	3:1	Included in oak root zone mitigation	0	Included in oak root zone mitigation
Non-Native Grassland (42200)	2.49	1.05	0	0	1.05	0.5:1	0.53	0	0.53
Tamarisk Scrub (63810)	0	0	0	0	0	3:1	0	0	0
Freshwater Seep (45400)	0.04	0.04	0	0	0.04	3:1	0.12	0	0.12
Southern Riparian Scrub (63300)	0	0	0	0	0	3:1	0	0	0
Freshwater (64140)	0	0	0	0	0	3:1	0	0	0
Coast Live Oak Woodland (71160)	0	0	0	0	0	3:1	0	0	0
Alkali Marsh (52300)	0	0	0	0.0	0	3:1	0	0	0
Oak Root Zone*	12.47	12.47	0	0	12.47	3:1	37.41	0	37.41
Total	**456.08**	**438.68**	**0**	**60.34**	**438.68**		**347.25**	**0**	**347.25**

*This is an overlay to the vegetation community layer and is not counted toward the total acreage of on-site habitats; it is only used in determining required mitigation.

The biological open space easement shall mitigate for project impacts to sensitive vegetation communities and habitat for wildlife species as shown in Table 10 of the Biological Resources Report (see above), thereby preserving compensatory habitat that provides equal or greater benefit to plant and wildlife species. This biological open space easement will be granted to the County or other approved conservation entity. Granting of this open space authorizes the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. This easement is for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. Granting of this open space authorizes the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. The only exceptions to this prohibition are (1) vegetation clearing by hand, by written order of the fire authority for reduction of an identified fire hazard; (2) activities conducted pursuant to an approved revegetation or RMP; (3) vector control by written order of the County; and (4) construction, use, and maintenance of approved multi-use, non-motorized trails. No trails have been approved as part of this project and would require subsequent environmental review and approval by PDS. Permanent signage indicating the area is a biological open space will be required and will be installed by the developer. As the project is proposed in two phases, two separate open space easements would be dedicated within the 447.93-acre area. The recordation of each open space easement would occur prior to grading of each phase.

Documentation: In each phase, the Applicant shall prepare the draft plats and legal descriptions of the easements, then submit them for preparation and recordation with the County Department of General Services, and concurrence with PDS, and pay all applicable fees associated with preparation of the documents.

Timing: Prior to approval of any plan or issuance of any permit in each phase, and prior to use of the premises in reliance of this permit the easements shall be recorded.

Monitoring: The Applicant shall prepare the easement documents and send them to PDS for pre-approval. The PDS shall pre-approve the language and estimated location of the easements before they are released to the Applicant for signature and subsequent recordation. Upon Recordation of the easements, the Applicant shall forward a copy of the recorded documents to PDS for satisfaction of the condition.

M-BI-4 **Resource Management Plan (RMP).** To provide for the long-term management of the proposed off-site biological open space easements, an RMP will be prepared and implemented (Appendix K). The final RMP cannot be approved until the following has been completed to the satisfaction of the Director of PDS as follows:

1. The plan will be prepared and approved pursuant to the most current version of the County's Report Format and Content Requirements for Biological Resources (County of San Diego 2010b).
2. The habitat land to be managed will be owned by a land conservancy or equivalent.

3. Open space easements will be dedicated to the County in perpetuity, unless conveyed to another public agency subject to approval by the Director of PDS.
4. A resource manager will be selected and approved, with evidence provided demonstrating acceptance of this responsibility.
5. The RMP funding mechanism to fund annual costs for basic stewardship shall be identified and approved by the County. The RMP funding mechanism will be identified and adequate to fund annual costs for implementation; typically determined by a Property Analysis Record as a non-wasting endowment.
6. A contract between the Applicant and County will be executed for the implementation of the RMP.
7. The final RMP shall have project-specific requirements for the following mitigation implementation and monitoring measures:
    a. Special-status plant species mitigation
8. Goals: The final RMP will accomplish the following:
    a. Preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the biological open space.
    b. Provide 2:1 replacement of Jacumba milk-vetch, long spined spineflower, and Tecate tarplant, and 1:1 replacement of sticky geraea and desert beauty per the attached Conceptual Revegetation Plan (Appendix L of the Biological Resources Report). If Jacumba milk-vetch, long-spined spineflower, Tecate tarplant, sticky geraea, and desert beauty are transplanted or established from seed collected from individuals within the project footprint, then success of this Mitigation Program will be achieved for Phase 1 when at least 292 Jacumba milk-vetch, 336 sticky geraea, and 769 desert beauty are documented within the off-site biological open space easement during 1 or more years in the 3-year monitoring period. Similarly, success of the Mitigation Program will be achieved for Phase 2 when 2,104 Jacumba milk-vetch, 100 long-spined spineflower, 856 Tecate tarplant, 1,042 sticky geraea, and 74 desert beauty are documented within the open space.

Documentation: The Applicant shall prepare an RMP and submit it to PDS and pay all applicable review fees.

Timing: Prior to approval of any plan or issuance of any permit for each phase, and prior to use of the premises in reliance on this permit, the RMP shall be approved.

Monitoring: The PDS shall review the RMP for compliance with the content guidelines, the conceptual RMP, and this condition.

M-BI-5 **Avian Breeding and Special-status Wildlife Impact Avoidance.** This mitigation measure serves to avoid take of birds protected under the MBTA and California Fish and Game Code during the nesting season (M-BI-5(1)) and trampling or crushing special-status amphibians, reptiles, and mammals ((M-BI-5(2)), and special-status invertebrates (M-BI-5(3)) and (M-BI-5(4)).

1. **Nesting Bird Survey.** To avoid any direct impacts on raptors and/or any migratory birds protected under the MBTA and California Fish and Game Code, removal of

habitat that supports active nests on the proposed area of disturbance shall occur outside the nesting season for these species (which is January 15 through August 31, annually). If construction or decommissioning work must occur during the avian breeding season (January 15 to August 31, annually), the Applicant shall do the following:

a. In consultation with the County, CDFW, and the USFWS prepare a Nesting Bird Management, Monitoring, and Reporting Plan (NBMMRP) to address avoidance of impacts to nesting birds.

   The Applicant will submit to the County the NBMMRP (see following for details) for review and approval prior to commencement of the project during the breeding season. The NBMMRP should include the following:

   i. Nest survey protocols describing the nest survey methodologies.
   ii. A management plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks.
   iii. A monitoring and reporting plan detailing the information to be collected for incorporation into a regular Nest Monitoring Log (NML) with sufficient details to enable USFWS and CDFW to monitor the Applicant's compliance with Fish and Game Code Sections 3503, 3503.5, 3511, and 3513.
   iv. A schedule for the submittal (usually weekly) of the NML.
   v. Standard buffer widths deemed adequate to avoid or minimize significant project-related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks (i.e., 300 feet for nests of passerines and 500 feet for nests of raptors). The NBMMRP will outline a nest buffer reduction process to be approved by USFWS, CDFW, and PDS.
   vi. A detailed explanation of how the buffer widths were determined.
   vii. All measures the Applicant will implement to preclude birds from utilizing project-related structures (i.e., construction equipment, facilities, or materials) for nesting.

b. Conduct preconstruction nesting bird surveys within 72 hours of construction-related activities; conduct preconstruction survey sweeps immediately prior to ground-disturbing activities; and implement appropriate avoidance measures for identified nesting birds in the NBMMRP. Resurvey, if construction activities are halted for 10 consecutive days.

c. Conduct surveys beyond the project site —300 feet for passerine birds and 500 feet for raptors—to determine presence of nesting birds that the project activities may affect. The survey protocols shall include a detailed description of methodologies utilized by CDFW-approved avian biologists to search for nests and describe avian behaviors that indicate active nests. The protocols shall include but are not limited to the size of the project site being surveyed, method of search, and behavior that indicates active nests.

d. Each nest identified in the project site shall be included in the NML. The NMLs should be updated daily and submitted to the CDFW weekly. Since the purpose of the NMLs is to allow the CDFW to track compliance, the NMLs shall include information necessary to allow comparison between

nests protected by standard buffer widths recommended for the project (300 feet for passerine birds, 500 feet for raptors) and nests whose standard buffer width was reduced by encroachment of project-related activities. The NMLs shall provide a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. The NMLs shall allow for tracking the success and failure of the buffers and would provide data on the adequacy of the buffers for certain species.

e. The Applicant will rely on its avian biologists to determine the appropriate standard buffer widths for nests within the project corridor/footprint to employ based on the sensitivity levels of specific species or guilds of avian species. The determination of the standard buffer widths shall be site- and species-/guild-specific and data-driven and not based on generalized assumptions regarding all nesting birds. The determination of the buffer widths shall be developed in the NBMMRP approved by the USFWS, CDFW, and PDS, and will consider the following factors:
    i. Nesting chronologies
    ii. Geographic location
    iii. Existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise)
    iv. Type and extent of disturbance (e.g., noise levels and quality—punctuated, continual, ground vibrations—blasting-related vibrations proximate to tern colonies are known to make the ground-nesting birds flush the nests)
    v. Visibility of disturbance
    vi. Duration and timing of disturbance
    vii. Influence of other environmental factors
    viii. Species' site-specific level of habituation to the disturbance

Application of the standard buffer widths shall avoid the potential for project-related nest abandonment and failure of fledging and minimize any disturbance to the nesting behavior. If project activities cause or contribute to a bird being flushed from a nest, the buffer must be widened. This measure does not apply to nests that are started on construction equipment or panels or supporting structures.

Documentation: The Project Biologist shall prepare the final report and submit it to the PDS for review and approval.

Timing: Surveys shall be conducted prior to any clearing, grubbing, trenching, grading, or any land disturbances during the avian breeding season. Prior to any occupancy, final grading release, or use of the premises in reliance of this permit for each phase, the final report shall be approved.

Monitoring: The PDS shall review the final report for compliance with this condition and the report format guidelines. Upon approval of the report, PDS shall inform the Applicant that the requirement is complete, and the bond amount can be relinquished. If the monitoring was bonded separately, then the PDS shall inform DPW to release the bond back to the Applicant.

2. **Special-Status Species Preconstruction Surveys and Relocation Plan.** Prior to construction, the Applicant shall develop preconstruction surveys for special-status terrestrial reptiles (e.g., Southern California legless lizard, coast horned lizard, California glossy snake, red-diamond rattlesnake, rosy boa, and San Diego

ringneck snake,), small terrestrial mammals (i.e., San Diego black-tailed jackrabbit, Dulzura pocket mouse, northwestern San Diego pocket mouse, pallid San Diego pocket mouse, and southern grasshopper mouse), bats (i.e., pallid bat, greater western mastiff bat, western red bat, small-footed myotis, long-eared myotis), and mule deer, mountain lion, and ringtail documented on-site or with high potential to occur on-site. The plan shall at minimum include the timing and locations where surveys should be conducted; if and species are confirmed, provide the habitat and conditions in the proposed relocation site(s); the methods that would be used for trapping and relocating the individual species; and the method for documenting/recording the species and number of animals relocated. The plan shall be submitted to the County by a qualified biologist prior to any ground-disturbing activities within potentially occupied habitat.

Preconstruction Surveys. No more than 3 days prior to construction, a qualified biologist shall conduct a preconstruction survey within areas of suitable habitat for special-status species wildlife documented on-site (i.e., Cooper's hawk, sharp-shinned hawk, Bell's sage sparrow, turkey vulture, Southern California legless lizard, coast horned lizard, San Diego black-tailed jackrabbit, San Diego desert woodrat, coastal whiptail, California horned lark, western bluebird, mule deer, and mountain lion) as well as those with high potential to occur (i.e., southern California rufous-crowned sparrow, golden eagle, long-eared owl, red-shouldered hawk, northern harrier, white-tailed kite, prairie falcon, loggerhead shrike, Lewis' woodpecker, California glossy snake, red-diamond rattlesnake, pallid bat, Dulzura pocket mouse, northwestern San Diego pocket mouse, pallid San Diego pocket mouse, greater western mastiff bat, southern grasshopper mouse, mountain quail, rosy boa, San Diego ringneck snake, ringtail, western red bat, small-footed myotis, long-eared myotis, and monarch butterfly). The biologist shall look for special-status species that may be located within or immediately adjacent to the project work areas, as permitted by access. If determined by the qualified biologist that, based on the construction activities, time of year, and presence/location of special-status wildlife species, relocation of special-status wildlife species is necessary, relocation will occur to nearby undisturbed areas within suitable habitat in the off-site open space easements as specified in the plan and a California scientific collecting permit (SCP) (if applicable), but as close to their origin as possible (consistent with the approved plan). The biologist relocating the species shall possess a California SCP to handle these species if required by applicable CDFW regulations.

A qualified biologist shall be present during initial ground-disturbing activities (i.e., vegetation removal) immediately adjacent to or within the vegetation communities and/or disturbed habitats that could support populations of special-status wildlife species to monitor vegetation removal and topsoil salvaging and stockpiling, where applicable. If special-status wildlife species are detected in the work area during biological monitoring, the individual(s) will be documented and relocated as per the approved Plan and in accordance with the SCP conditions as applicable.

Documentation: The Project Biologist shall prepare the final survey report and relocation plan and submit it to the PDS for review and approval.

Timing: Surveys shall be conducted prior to any clearing, grubbing, trenching, grading, or any land disturbances. Prior to final grading release, or use of the

premises in reliance of this permit for each phase, the final survey report and Relocation Plan shall be approved.

Monitoring: The PDS shall review the final survey report and Relocation Plan for compliance with this condition and the report format guidelines. Upon approval of the report, PDS shall inform the Applicant that the requirement is complete, and the bond amount can be relinquished.

3. To avoid impacts to nesting birds and other special-status wildlife species during decommissioning, the project operator shall be required to implement the measures outlined in subsections (1) and (2) prior to undertaking decommissioning activities.

4. **Crotch's bumblebee Habitat Assessment and Surveys.** This mitigation measure shall only be required if Crotch's bumble bee remains as a candidate state endangered species or is listed as a state endangered species at the time of project construction.

    a. **Habitat assessment.** If not previously completed, or if surveys are no longer valid for any reason, a biologist with demonstrated experience with Crotch's bumblebee will conduct a desktop habitat assessment to determine the presence of suitable habitat for Crotch's bumble bee within the project site. This assessment will evaluate historical and current species distribution, proximity to the last known sighting, and potential foraging (including native and non-native), nesting, and overwintering resources. Field verification surveys will be conducted during the floral blooming period, typically April through August, and will include an in-person project site observation, quantification of blooming vegetation (e.g., percent cover or a scale), and an assessment of plant diversity.

    Documentation: The qualified Biologist shall prepare the final habitat assessment report and submit it to the CDFW for review and approval for each phase.

    b. **Focused Surveys.** If the habitat assessment and field verification survey indicate a high likelihood for take of the species, occupancy will be assumed, or, a proposed survey protocol will be submitted to the Wildlife Agencies for review. If surveys are proposed, a survey methodology will be designed that is project- and site-specific, including the qualifications of the biologist conducting the surveys. The survey methodology will follow the general guidelines and best practices outlined in CDFW's "Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species" (June 6, 2023). If surveys are conducted andoccupied Crotch's bumble bee habitat within or bordering the project site is documented, or if Crotch's bumble bee is assumed to be present based on the habitat assessment, pre-construction surveys of such habitat for active bee nest colonies shall be required no more than 5 days prior to any ground disturbance activities that occur between February 15 and September 15. The project biologist will establish, monitor, and maintain a no-work buffer around any active nest colonies identified during surveys. The size and configuration of the no-work buffer will be based on the best professional judgment of the project biologist in consultation with CDFW. The buffer should provide at least 50 feet of clearance around nest entrances. Construction activities should not occur within the no-work buffers until the colony is no longer active. To determine that a nest is no

longer active, the nest will be observed for a minimum of 60 minutes each day across multiple days (three days minimum) during suitable flight weather (i.e., ambient air temperature between 60- and 90- degrees Fahrenheit, winds under 10 mph, and no precipitation heavier than a drizzling rain). If no bees are seen flying in or out of the nest it will be determined that the next season's queens have dispersed from the colony and the nest is no longer active.

If Crotch's bumble bee is found on-site during habitat assessments or protocol surveys, the project proponent shall:

i. Notify CDFW of the species' presence within 48 hours and consult with the CDFW to determine whether the project needs to obtain an ITP, and adhere to the following minimum conditions:

ii. Implement Immediate Avoidance and Minimization Measures:

1. Conduct a nest search within suitable habitat areas identified during surveys
2. Establish and clearly mark no-work buffer zones of at least 50 feet around active nest colonies if found
3. Avoid all ground-disturbing activities within these buffer zones during the active bee season (February 15 through September 15)

iii. Have a monitor present during initial ground disturbance and vegetation clearance.

Compensatory mitigation for permanent direct impacts to suitable Crotch's bumble bee habitat shall be offset through compensatory mitigation, which may include, but is not necessarily limited to, on-site or off-site habitat preservation, enhancement, restoration, and/or creation at a ratio of no less than 1:1. If an incidental take permit covering Crotch's bumble bee is issued for the project, the measures and mitigation ratios specified in that permit shall take precedence over those outlined in this report.

5. **Western Spadefoot Avoidance and Mitigation.** To minimize impacts, project design shall prioritize avoidance of areas where there is potential for western spadefoot occurrence, to the extent feasible. Avoidance efforts will focus on protecting both permanent and temporary wetlands that are suitable for western spadefoot breeding, including natural and altered water features that retain water for at least 30 days. These habitats include, but are not limited to:

- Vernal pools
- Ephemeral streams
- Artificial ponds (e.g., livestock, sedimentation, flood control)
- Irrigation and roadside ditches
- Roadside puddles, tire ruts, and borrow pits.

In addition, adjacent upland habitats—which include scrubland, oak woodlands, chaparral, and grasslands—within 1,500 feet of breeding sites, which provide foraging areas, movement corridors, and overwintering locations, shall also be avoided.

Contingent upon the western spadefoot's formal listing under the ESA, the project will initiate formal consultation with the U.S. Fish and Wildlife Service (USFWS) to develop and implement scientifically appropriate mitigation strategies. These strategies may include, but are not limited to, establishing species-specific avoidance buffer distances and implementing targeted exclusionary fencing to minimize potential adverse impacts on the species.

M-BI-6 **Biological Monitoring of Stormwater Pollution Prevention Plan (SWPPP) Implementation.** A SWPPP shall be prepared that meets all County requirements. Implementation of the SWPPP shall protect habitats and special-status species adjacent to the project during construction and decommissioning activities. The items below shall be included in the SWPPP, and the Project Biologist shall verify that they are implemented during construction and decommissioning monitoring:

1. No planting or seeding of invasive plant species on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region.
2. Dust control fencing is in place and intact if fencing is required.
3. Construction activity is located outside of jurisdictional WOTUS/WOS except as authorized by applicable law and permit(s), including permits and authorizations approved by the USACE, CDFW, and Water Board.
4. Silt-settling basins installed during the construction process are located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes. Design of drainage facilities shall incorporate long-term control of pollutants and stormwater flow to minimize pollution and hydrologic changes.
5. Temporary structures, staging, and storage areas for construction equipment and/or materials are located outside of jurisdictional waters, including wetlands and riparian areas.
6. No material stockpiles, debris, bark, slash sawdust, rubbish, cement, concrete or washing thereof, oil, or petroleum products are stored where they may be washed by rainfall or runoff into jurisdictional WOTUS or WOS.
7. When construction operations are completed, excess materials or debris have been removed from the work area.
8. No equipment maintenance is performed within or near jurisdictional WOTUS/WOS where petroleum products or other pollutants from the equipment may enter these areas.
9. Fully covered trash receptacles that are animal-proof and weather-proof are installed and used by the operator to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Littering is prohibited, and removal of trash from construction areas daily is required. All food-related trash and garbage are removed from construction sites daily.
10. There are no pets on or adjacent to construction sites.
11. Speed limits in and around all construction areas are enforced so that vehicles do not exceed 15 mph on unpaved roads and the right-of-way accessing the construction site, or 10 mph during the night.

Documentation: The permittee shall submit a SWPPP for review and approval by the County of San Diego biologist.

Timing: The following actions shall occur throughout the duration of construction for each phase.

Monitoring: The County of San Diego shall review the SWPPP and ensure its implementation.

M-BI-7 **Prevention of Chemical Pollutants.** Weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County agriculture commissioner. The application of herbicides shall be in compliance with all federal and state laws and regulations under the prescription of a licensed Pest Control Adviser with at least 2 years of experience and implemented by a licensed applicator. Where manual and/or mechanical methods are used, disposal of the plant debris shall follow the regulations set by the County agriculture commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the Pest Control Adviser, the County agriculture commissioner, and the California Invasive Plant Council, with the goal of controlling populations before they start producing seeds.

During project construction, operation, and decommissioning, all areas that use chemicals that are potentially toxic or impactive to sensitive habitats or plants shall incorporate best management practices (e.g., avoid applications during or before rain events and avoid placing materials close to sensitive habitats) on-site to reduce impacts caused by the application and/or drainage of such materials within the development footprint. In addition, use of rodenticides and pesticides shall not be allowed.

Documentation: The permittee shall assume responsibility pursuant to this condition.

Timing: Upon establishment of use, the condition shall apply during the term of this permit for each phase.

Monitoring: The PDS is responsible for enforcement of this permit.

M-BI-8 **Prevention of Invasive Plant Species.** A County of San Diego-approved plant list shall be used for areas immediately adjacent to open space. A hydroseed mix that incorporates native species, is appropriate to the area, and is free from invasive species shall be used for landscaped areas adjacent to the biological open space. The PDS landscape architect shall require that all final landscape plans comply with the following: no invasive plant species, as included on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region shall be included, and the plant palette shall be composed of native species that do not require high irrigation rates. The Project Biologist shall periodically check landscape products for compliance with these requirements. Planting, seeding, and weed control for the mitigation site are discussed in the RMP.

M-BI-9 **Operations and Maintenance Signage.** Signage shall be posted at all entrances to the facility stating that operations and maintenance personnel shall be prohibited from the following:

1. Harming, harassing, or feeding wildlife and/or collecting special-status plant or wildlife species
2. Smoking

3. Traveling (either on foot or in a vehicle) outside of the solar facility in undisturbed portions of the project site
4. Having pets on the project site
5. Littering
6. Remaining at the facility after daylight hours unless conducting operations and maintenance activities
7. Exceeding normal nighttime operation noise and lighting

M-BI-10 **Noise Reduction.** Construction- and decommissioning-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) adjacent to breeding/nesting areas shall incorporate noise-reduction measures (described below) or be curtailed during the breeding/nesting season of sensitive bird species.

1. Trucks and other engine-powered equipment shall be equipped with noise reduction features, such as mufflers and engine shrouds, which are no less effective than those originally installed by the manufacturer.
2. Trucks and other engine-powered equipment shall be operated in accordance with posted speed limits and limited engine idling requirements.
3. Usage of truck engine exhaust compression braking systems shall be limited to emergencies.
4. Back-up beepers for all construction equipment and vehicles shall be adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration's (OSHA's) and the California Division of Occupational Safety and Health's safety requirements are not violated. These settings shall be retained for the duration of construction activities.
5. Vehicle horns shall be used only when absolutely necessary, as specified in the contractor's specifications.
6. Radios and other noise-generating "personal equipment" shall be prohibited.

If construction-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) occur during the period of January 15 through August 31, a County-approved biologist shall conduct preconstruction surveys in suitable nesting habitat adjacent to the construction area to determine the location of any active nests in the area (see M-BI-5).

M-BI-11 **Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways.**

1. **Erosion Control Around RPO Wetland Buffers:** Actively implement erosion control measures to prevent erosion and the discharge of sediment and pollutants into all San Diego County Wetland Protection Ordinance wetlands and their protection buffers (50-feet) within the project during project activities. Erosion controls shall be made from biodegradable materials where applicable (mulch) and monitored and repaired, if necessary, to ensure maximum erosion, sediment, and pollution control and removed at the time of project completion.
2. **Flagging RPO Wetland Buffers:** Contractor shall flag all San Diego County Wetland Protection Ordinance (RPO) wetland buffers (50-feet) for avoidance. No work including site access shall occur within the RPO wetland buffers.

3. **Waters Agency Coordination:** Coordinate with all applicable agencies with potential jurisdiction over aquatic resources within the project. If necessary, submit and obtain waters permits prior to project construction.
4. **Waters Permits:** If applicable, all waters permits (printed or electronic) shall be on-site during all project activities, and all personnel shall be aware of and understand all applicable permit conditions. The work must comply with the permitted scope of work and all permit conditions. Ensure coordination with the applicable agencies if permits require advanced notification to start work.

M-BI-12 **Wildlife Corridor.** In order to comply with Figure 15 of the Biological Resources Report depicting wildlife corridors, a minor deviation must be provided and approved to reflect the project changes. Prior to approval of any plan in any phase, issuance of any permit, and prior to use of the premises in reliance of this permit, a minor deviation must be submitted and approved with updated plans to the San Diego County PDS. The Applicant shall submit updated plans to reflect Figure 15 or as deemed appropriate by the County of San Diego and all applicable Wildlife Agencies (as deemed by the County) and gain approval. PDS shall review and approve the minor deviation for compliance with this condition.

1. **Wildlife Corridor Access.** The project shall provide wildlife-friendly fencing to allow for wildlife moving within the project site.

M-BI-13 **Special-status Plants.** Mitigation shall be provided for 800 Jacumba milkvetch (County List A), 33 long-spined spineflower (County List A), 219 Tecate tarplant (County List A), 1,378 sticky geraea (County List B), and 843 desert beauty (County List B). County List A plant species will be mitigated at a 2:1 ratio, and County List B species will be mitigated at a 1:1 mitigation ratio. Mitigation for these plants shall be achieved through (1) seeding and/or salvaging the plants located in proposed impact areas and replanting in suitable mitigation lands, and (2) establishment of additional plants to meet the mitigation requirements as outlined in a Conceptual Revegetation Plan. The final Revegetation Plan for the biological open space easement shall include the required measures to ensure viability of the transplanted and established individuals.

Documentation: The Applicant shall provide evidence of special-status plant mitigation per requirements of the RMP (see M-BI-4).

Timing: Prior to approval of any plan or issuance of any permit, and prior to use of the premises in reliance of this permit in each phase the evidence of mitigation shall be recorded.

Monitoring: A RMP Annual Report will be submitted to the County along with the submittal fee to cover County staff review time, per the RMP.

5.3 Cultural Resources

M-CR-1 **Dedicated Cultural Open Space Easement for Significant Archaeological Resources**. Prior to grading of Phase I, and in order to protect sensitive cultural resources, a Cultural Resource Open Space Easement shall be granted to the County of San Diego (County) as shown on an approved Open Space Easement exhibit. Within Phase I of the project, this easement is for the protection of archaeological sites P-37-027350, P-37-033497/ P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865. Prior to grading of Phase II, and in order to

protect sensitive cultural resources, a Cultural Resource Open Space Easement shall be granted to the County as shown on an approved Open Space Easement exhibit. Within Phase II of the project, this easement is for the protection of archaeological sites P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872.

The easement prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The sole exceptions to this prohibition are:

1. Implementation of a site-capping plan approved by the Director of Planning and Development Services, if necessary
2. Selective clearing of vegetation by hand to the extent required by written order of the fire authorities for the express purpose of reducing an identified fire hazard
3. Activities required to be conducted pursuant to a revegetation, habitat management, or landscaping plan approved by the Director of Planning and Development Services
4. Vegetation removal or application of chemicals for vector control purposes where expressly required by written order of the Department of Environmental Health, in a location and manner approved in writing by the Director of Planning and Development Services
5. Installation of temporary or permanent fencing for the purpose of preventing inadvertent disturbance of archaeological sites during construction, maintenance, and decommissioning activities.

The Applicant shall prepare the legal descriptions of the easements, then submit them for preparation and recordation with the County and pay all applicable fees associated with preparation of the documents prior to the approval of any plan and issuance of any permit. For recordation by separate document, the County Department of General Services shall prepare and approve the easement documents and send them to the County Department of Planning and Development Services for preapproval. Planning and Development Services shall preapprove the language and estimated location of the easements prior to recordation. Upon recordation of the easements the Department of General Services shall forward a copy of the recorded documents to Planning and Development Services for satisfaction of the condition.

M-CR-2 **Cultural Resources Treatment Agreement and Preservation Plan**. In order to mitigate for impacts to cultural resources and tribal cultural resources (TCRs), the Applicant shall develop and enter into a Cultural Resources Treatment Agreement and Preservation Plan with the consulting Native American tribes.

A Cultural Resources Treatment Agreement and Preservation Plan shall be developed between the Applicant or their representative and the consulting Native American tribes. The Cultural Resources Treatment Agreement and Preservation Plan shall be reviewed and agreed to by the County prior to final signature and authorization. The Cultural Resources Treatment Agreement and Preservation Plan shall include but is not limited to the following:

1. Parties entering into the agreement and contact information.
2. Responsibilities of the Property Owner or their representative, Principal Investigator (PI), archaeological monitors, Kumeyaay Native American monitors, and consulting tribes.
3. Requirements of the Archaeological Monitoring Program including unanticipated discoveries. The requirements shall address grading and grubbing requirements including controlled grading and controlled vegetation removal in areas of cultural sensitivity, analysis of identified cultural materials, and on-site storage of cultural materials.
4. Treatment of identified Native American cultural materials and TCRs.
5. Treatment of Native American human remains and associated grave goods.
6. Incorporation of P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 into dedicated open space in Phase I. Incorporation of P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 into dedicated open space in Phase II.
7. Interim treatment and final internment of Native American cultural soils and materials.
8. Confidentiality of cultural information including location and data.
9. Regulations that apply to cultural resources and TCRs that have been identified or may be identified during project construction.

A copy of the implemented agreement shall be submitted to the County for approval, prior to the approval of any plan and issuance of any permit. The County shall review the implemented agreement for compliance this condition.

M-CR-3 **Archaeological and Native American Monitoring**. In order to mitigate for potential impacts to undiscovered buried archaeological resources and human remains, an Archaeological Monitoring Program and potential Data Recovery Program shall be implemented pursuant to the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* and the California Environmental Quality Act (CEQA). This shall be implemented prior to approval of any grading and or improvement plans and issuance of any Grading or Construction Permits, for both Phases for the period of time that ground-disturbing activities have the potential to uncover or disturb cultural resources, as determined by the Principal Investigator.

A County-approved Principal Investigator known as the "Project Archaeologist" shall be contracted to perform monitoring and a potential data recovery program during all grading, clearing, grubbing, trenching, and earth-disturbing activities for both Phases I and II. The Project Archaeologist shall contract with a Kumeyaay Native American monitor(s) to conduct Native American monitoring for the project.

The monitoring program for both Phases I and II shall include the following:

1. Preconstruction

a. Contract with a County-approved archaeologist to perform archaeological monitoring and a potential data recovery program during all earth-disturbing activities. The Project Archaeologist shall perform the monitoring duties before, during and after construction.

b. Hold a preconstruction meeting to be attended by the Project Archaeologist and Kumeyaay Native American monitor(s) to explain the monitoring requirements.

2. Construction Monitoring

a. Both the Project Archaeologist and Kumeyaay Native American monitor(s) are to be on-site during earth-disturbing activities. The frequency and location of monitoring of native soils shall be determined by the Project Archaeologist in consultation with the Kumeyaay Native American monitor. Both the Project Archaeologist and Kumeyaay Native American monitor shall evaluate fill soils to ensure that they are negative for cultural resources, including those that could be identified as TCRs.

b. If cultural resources or TCRs are identified:

i. Both the Project Archaeologist and Kumeyaay Native American monitor(s) have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.

ii. The Project Archaeologist shall contact the County Archaeologist at the time of discovery.

iii. The Project Archaeologist in consultation with the County Archaeologist and Kumeyaay Native American monitor(s) shall determine the significance of discovered resources.

iv. Construction activities shall be allowed to resume after the County Archaeologist has concurred with the significance evaluation.

v. Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Kumeyaay Native American monitor may collect the cultural material for transfer to a tribal curation facility or repatriation program.

c. If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Kumeyaay Native American monitor(s) and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources or Sacred Sites, including TCRs; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for nonunique cultural resources. The preferred option is preservation (avoidance).

3. Human Remains

a. The Property Owner or their representative shall contact the County Coroner and the Planning and Development Services Staff Archaeologist.

b. Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin. If the human remains are to be taken off-site for

evaluation, they may be accompanied by the Kumeyaay Native American monitor.

c. If 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 by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.

d. The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.

e. Public Resources Code Section 5097.98, CEQA 15064.5, and Health and Safety Code 7050.5 shall be followed in the event that human remains are discovered.

4. Rough Grading

a. Monitoring Report. Upon completion of rough grading, a monitoring report shall be prepared identifying whether resources were encountered. A copy of the monitoring report shall be provided to the South Coastal Information Center and any culturally affiliated tribe who requests a copy.

5. Final Grading

a. Final Report. A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered. A copy of the final report shall be submitted to the South Coastal Information Center and any culturally affiliated tribe who requests a copy.

b. The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or tribal curation facility that meets federal standards per 36 Code of Federal Regulations (CFR) 79, or alternatively have been repatriated to a culturally affiliated tribe.

c. The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR 79.

The Applicant shall provide a copy of the Archaeological Monitoring Contract or letter of acceptance, cost estimate, and memorandum of understanding (MOU) to the County. Additionally, the cost amount of the monitoring work shall be added to the grading bond cost estimate for both Phases I and II.

Planning and Development Services shall review the contract or letter of acceptance, MOU, and cost estimate or separate bonds for compliance with this condition. The cost estimate should be forwarded to the County for inclusion in the grading bond cost estimate, and grading bonds and the grading monitoring requirement shall be made a condition of the issuance of the grading or construction permit.

M-CR-4 **Temporary Fencing**. To prevent inadvertent disturbance of archaeological sites, temporary fencing shall be installed around the archaeological sites where they are located within 50 feet of the project area of direct impact (ADI). The temporary fencing shall include the following requirements:

1. Prior to the commencement of any grading and/or clearing in association with the grading and/or improvement plan, temporary construction fencing shall be placed at a distance of 50 feet around the known boundaries of archaeological sites, to protect archaeological sites or portions of sites from inadvertent disturbance. This temporary fencing shall be placed around the following sites in Phase I: P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 adjacent to the project ADI during earth-disturbing activities. This temporary fencing shall be placed around the following sites in Phase II: P-37-010476/P-37-034159, P-37-033310, P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 adjacent to the project ADI during earth-disturbing activities. Temporary fencing shall be installed prior to the preconstruction meeting and any clearing, grubbing, trenching, grading, or ground disturbance during both construction and decommissioning. The temporary fencing shall remain for the duration of project earth-disturbing activities.
2. Temporary fencing shall be required in all locations of the project where proposed grading or clearing is within 50 feet of any archaeological site outside of the project ADI.
3. The placement of such fencing shall be approved by the County. Upon approval, the fencing shall remain in place until the conclusion of grading activities, after which the fencing shall be removed.
4. Installation and maintenance of temporary fencing shall require the presence of monitor(s) (archaeological and Native American) pursuant to **M-CR-3**.
5. A signed and stamped statement from a California Registered Engineer, or licensed surveyor, shall be submitted to Planning and Development Services for approval. The statement shall identify that temporary fencing has been installed in all required locations where grading or clearing is within 50 feet of an archaeological site outside of the project ADI.

M-CR-5 **Permanent Fencing**. To prevent inadvertent disturbance of archaeological sites within the avoidance areas and to the unimpacted portions of the site outside of the ADI, permanent fencing shall be installed at a distance of 50 feet from the boundaries of archaeological sites as indicated on the approved project plans. The fencing shall be a three-strand barbed wire fence with a total height of four feet once constructed to keep an unobstructed view and to keep with the rural character of the region. The installation of the permanent fencing shall occur by Phase.

This permanent fencing shall be placed around the following sites in Phase I: P-37-027350, P-37-033497/P-37-033502/P-37-033503, P-37-040847, P-37-040848, P-37-040850, P-37-040851, P-37-040861, P-37-040866, and P-37-040865 adjacent to the project ADI. This permanent fencing shall be placed around the following sites in Phase II: P-37-010476/P-37-034159, P-37-033310, , P-37-040857, P-37-040858, P-37-040859, P-37-040862, P-37-040863, P-37-040864, P-37-040867, P-37-040869, P-37-040870, and P-37-040872 adjacent to the project ADI.

The permanent fencing shall include the following requirements:

1. Installation of permanent fencing shall require the presence of monitor(s) (archaeological and Native American) pursuant to **M-CR-3**.

2. A signed and stamped statement from a California Registered Engineer, or licensed surveyor shall be submitted to Planning and Development Services for approval. The statement shall identify that temporary fencing has been installed in all required locations where grading or clearing is within 50 feet of an archaeological site outside of the project ADI.

M-CR-6 **Long-Term Preservation of Resources**. All operation and maintenance (O&M) and decommissioning activities shall be performed within the proposed project ADI – no ground-disturbing activities shall occur outside the proposed project ADI or in the conservation areas. Employees and contractors performing O&M and decommissioning activities shall receive training or instructions regarding the archaeological and cultural sensitivity of the project site to ensure no inadvertent impacts occur to the potentially significant sites (or portions thereof) that are adjacent to the proposed project ADI.

5.4 Hydrology and Water Quality

M-HY-1 **Flood Fencing**. Prior to approval of final design plans, the applicant shall demonstrate to the satisfaction of the County Department of Public Works (DPW) Flood Control through hydrologic and hydraulic analyses, acceptable to DPW Flood Control and performed by a California licensed engineer in accordance with standard engineering practice, that the design features for the perimeter fencing avoids the blockage and/or redirection of storm flows resulting from the accumulation of debris and/or detritus at wash crossings. This can be accomplished through a number of means such as a) use of breakaway fencing perpendicular to flood flows to prevent obstruction and accumulation of debris b) use of fencing that spans washes (without posts) above the anticipated peak flow depth, c) or an alternative design measure that would avoid accumulations of detritus at perimeter fence wash crossings, subject to County approval.

The applicant shall show the proposed fencing design or alternative design measure on the Final Grading Plans. The associated Drainage Study shall contain hydrologic and hydraulic analyses, acceptable to DPW Flood Control and performed by a California licensed engineer in accordance with standard engineering practice, that model the proposed fencing and/or design measures and demonstrate that the fencing shall not cause alteration of drainage patterns and/or flood hazards from pre-project conditions. The Drainage Study shall be in compliance with the County Hydrology Manual and the County Hydraulic Design Manual.

Prior to the approval of any grading and/or improvement plans and issuance of Grading or Construction Permits, the Drainage Study and Plans shall be approved. The County DPW Flood Control shall review and approve the hydrologic and hydraulic analyses contained in the Drainage Study and the final fencing design and layout to ensure the flood flow is fully mitigated to pre-project conditions.

5.5 Noise

M-N-1 **Stationary Equipment**. The project shall comply with the County of San Diego's Noise Ordinance Section 36.404 based upon the current proposed layout and the anticipated major noise-producing operating stationary equipment (equipment) deployed for the project. The equipment modeled in the noise analysis report prepared for the EIR (Appendix J.1 of the EIR) was selected as representative technology at the time the report was prepared. The Applicant may propose to use different equipment than what was used

to perform the noise modeling in the noise analysis report or propose a change in the equipment layout. If different equipment is selected and/or the layout of equipment is changed subsequent to project approval, the Applicant will be required to submit a revised Noise Analysis, and a revised site plan if needed, as follows:

1. The Project Applicant shall retain a County-approved CEQA Noise Consultant to prepare a new predictive operations noise analysis in accordance with the *County of San Diego, Report Format and Content Requirements – Noise* (County of San Diego 2009b). Any alterations or modifications proposed and approved pursuant to this procedure shall be included in the proposed project design plans. Any proposed equipment selections, equipment duty cycles, project layout alterations, and/or the addition, modification, reduction of the preceding equipment noise limits and measures may be approved, if they are demonstrated to comply at the property line with applicable outdoor hourly Leq noise limits per Section 36.404(a) of the County Noise Ordinance.
2. The above-identified measures shall take place prior to approval of any building plans for the project. Any alterations or modifications proposed and approved pursuant to this procedure shall be included in the proposed project design plans.

M-N-2 **Construction Noise Management Plan**. Prior to construction and decommissioning, the Applicant shall prepare a Construction Noise Management Plan (CNMP) which establishes construction activity restrictions in order to reliably achieve compliance with the County's 8-hour 75 dBA Leq standard at the project property lines adjoining existing occupied properties, defined by Section 36.402.(m) as "property on which there is a building for which a certificate of occupancy has been issued". The CNMP shall demonstrate compliance with the County Noise Ordinance for avoiding potential impacts caused by operating construction equipment and vehicle noise sufficiently proximate to these property lines of occupied properties. The CNMP shall be submitted to County Planning and Development Services 30 days prior to any land disturbance. Components of the CNMP shall include the following:

1. Affected property owners shall be notified in writing 2 weeks prior to construction activity within 500 feet of their property boundaries.
2. In order to comply with the County Noise Ordinance (Section 36.409, Construction Equipment), the acoustical usage factors (AUF) of heavy construction equipment used on the project site shall be comparable to those listed in Table 1 of the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) User Guide (FHWA 2017). Lmax values at 50 feet shall be the lower of either the "Spec. 721.560" or "Actual Measured" values in Table 1 of the RCNM User Guide, and duration of heavy equipment operating for construction shall comply with the following limitations by activity, for the specified distance between the indicated heavy equipment operations and a position along the property line of an occupied parcel:
    a. Perimeter fence installation – up to two flatbed trucks and a front-end loader:
        i. Within 15 feet – not permitted
        ii. 15 to 25 feet – no more than 20 minutes per 8-hour period
        iii. 25 to 50 feet – no more than 1 hour per 8-hour period
        iv. 50 to 75 feet – no more than 4 hours per 8-hour period
        v. Beyond 75 feet – no restriction

b. Site preparation (clearing) – water truck and tractor (mowing attachment):
    i. Within 20 feet – not permitted
    ii. 20 to 25 feet – no more than 20 minutes per 8-hour period
    iii. 25 to 50 feet – no more than 30 minutes per 8-hour period
    iv. 50 to 75 feet – no more than 2 hours per 8-hour period
    v. 75 to 100 feet – no more than 4 hours per 8-hour period
    vi. Beyond 100 feet – no restriction
c. Site preparation (earth-moving) – bulldozer, water truck, and scraper:
    i. Within 25 feet – not permitted
    ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
    iii. 50 to 75 feet – no more than 1 hour per 8-hour period
    iv. 75 to 100 feet – no more than 3 hours per 8-hour period
    v. 100 to 125 feet – no more than 6 hours per 8-hour period
    vi. Beyond 125 feet – no restriction
d. Site preparation (grading) – flatbed truck, grader, water truck, and sheepsfoot roller:
    i. Within 25 feet – not permitted
    ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
    iii. 50 to 75 feet – no more than 1 hour per 8-hour period
    iv. 75 to 100 feet – no more than 3 hours per 8-hour period
    v. 100 to 125 feet – no more than 6 hours per 8-hour period
    vi. Beyond 125 feet – no restriction
e. Underground work (trenching) – excavator, sheepsfoot roller, water truck, 5-kilowatt (kW) generator, and Gradall (4 × 4 forklift):
    i. Within 25 feet – not permitted
    ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
    iii. 50 to 75 feet – no more than 1.5 hours per 8-hour period
    iv. 75 to 100 feet – no more than 3 hours per 8-hour period
    v. Beyond 100 feet – no restriction
f. Underground work (back-filling) – Aussie padder, sheepsfoot roller, water truck, 5kW generator, and Gradall (4 × 4 forklift):
    i. Within 25 feet – not permitted
    ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
    iii. 50 to 75 feet – no more than 1.5 hours per 8-hour period
    iv. 75 to 100 feet – no more than 3 hours per 8-hour period
    v. Beyond 100 feet – no restriction
g. System installation – Gradall (4 × 4 forklift), crane, all-terrain vehicle, vibratory pile driver (RGT Model RG21T or comparable), pick-up truck, and 5-kW generator:
    i. Within 25 feet – not permitted
    ii. 25 to 50 feet – no more than 20 minutes per 8-hour period
    iii. 50 to 75 feet – no more than 1.5 hours per 8-hour period
    iv. 75 to 100 feet – no more than 4 hours per 8-hour period

v. Beyond 100 feet – no restriction

All construction equipment operations shall incorporate all recommended noise reducing measures such as, but not limited to, limiting construction equipment operations, installation of temporary noise barriers, and implementation of the recommendations within the CNMP to demonstrate compliance with the County Noise Ordinance, Sections 36.408 and 36.409.

Concurrent construction activities may occur so long as next closest construction activity to the same studied property line position is at least four times its "no restriction" distance away. By way of example, if earth moving was occurring near a fixed point on the potentially affected property line, the next closest set of earth-moving equipment performing like work, or perhaps an overlapping and comparable scheduled activity (e.g., grading), shall be permitted if no closer than 500 feet (equal to 4 × 125 feet) from the same receptor point.

3. If distance buffers or duration limits cannot be maintained, then the Applicant or its contractor will implement on-site temporary sound abatement measures, such as a field-erected noise barrier (e.g., sound blankets) of sufficient height and horizontal extent, or the placement of storage containers and other similarly solid sound-occluding structures, to ensure construction activity noise at the project property line complies with County standards.
4. The CNMP will also include direction for the Applicant or its contractor(s) to implement the following:
    a. Trucks and other engine-powered equipment shall be equipped with noise reduction features, such as mufflers and engine shrouds, which are no less effective than those originally installed by the manufacturer;
    b. Trucks and other engine-powered equipment shall be operated in accordance with posted speed limits and limited engine idling requirements;
    c. Usage of truck engine exhaust compression braking systems shall be limited to emergencies;
    d. Back-up beepers for all construction equipment and vehicles shall be adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration (OSHA) and California OSHA's safety requirements are not violated;
    e. Vehicle horns shall be used only when necessary, as specified in the contractor's specifications; and
    f. Radios and other noise-generating "personal equipment" shall be prohibited.

5.6 Tribal Cultural Resources

Mitigation measures **M-CR-2** and **M-CR-3**, as presented above in Section 5.3, Cultural Resources.

5.7 Wildfire

M-WF-1 **Fire Protection Plan**. The following items ensure adequate fire mitigation, access, and safety:

1. Six 10,000-gallon water tanks shall be available on-site: one tank shall be at each of the two entrances and one tank shall be located by each battery energy storage system (BESS); the other two shall be spread strategically across the project site. Each tank shall be labeled "Fire Water: 10,000 gallons" with reflective paint. All tanks shall have fire department connections available and a minimum 250-gallon-per-minute flow.
2. Increased road width near water storage tanks shall accommodate filling without blocking the road.
3. A Knox Box shall be placed at every gated project entrance to allow emergency service resources to access the site.
4. A lighted map identifying equipment and structures shall be available at every project entrance.
5. The project has adequate emergency response according to land use designation, ensured with a Fire Services Agreement.
6. There shall be a built-in heat detection and fire protection system and a fire extinguishing system for each BESS in compliance with NFPA Standard 855. The heat and fire detection system shall be linked to an automatic inert gas suppression system within each cabinet. The cabinets shall also have an interior aerosol fire suppression system.
7. An internal perimeter road with an improved width of 24 feet, and internal roads improved to 20 feet and the capability to handle a weight of 75,000 pounds, designed to accommodate fire apparatuses with an inner turning radius of 28 feet, shall provide essential access infrastructure.

M-WF-2 **Fuel Modification Zones**. Fuel Modification Zones (FMZs) shall be implemented and maintained as follows:

1. An FMZ for each phase of the project shall be in place before any combustible material is brought on-site.
2. Designated areas shall be mowed, brushed, chipped, or otherwise reduced to a vegetation height of less than 6 inches. Material may remain on-site, as long as it is spread out to a depth of no more than 6 inches. Alternative methods of vegetation control include manual removal, herbicide application, prescribed herbivory, or installation of weed barriers in certain areas, such as beneath the PV modules.
3. A 30-foot FMZ around the perimeter between the fence line and internal perimeter road shall reduce vegetation to less than 6 inches and be regularly maintained.
4. Vegetation shall be maintained to 10 feet on either side of every interior access road, ensuring minimum unobstructed vertical clearance of 13 feet and 6 inches.
5. A 100-foot FMZ around each BESS shall reduce vegetation to less than 6 inches in height and be regularly maintained.
6. A 30-foot FMZ around the collector substation pad shall reduce vegetation to less than 6 inches in height and be regularly maintained.
7. Vegetation under PV modules shall be maintained to a vertical height of no more than 6 inches.
8. Vegetation within the 14 internal open space easements shall be maintained to a vertical height of no more than 6 inches.

M-WF-3 **Battery Energy Storage System Measures**. The following measures shall be incorporated to reduce wildfire risk to the BESS and to reduce spread potential from a fire starting in the BESS:

1. Both BESSs shall be constructed on concrete pads and enclosed.
2. Each unit shall be separated by a drive aisle for easy access.
3. Automatic internal heat detecting system shall be linked to an inert gas system.
4. Each BESS shall have an internal aerosol suppression system that is regularly tested and maintained.
5. A 100-foot FMZ will surround each BESS to further reduce risk of fire spread.

M-WF-4 **Construction Fire Protection Plan**. The following shall be implemented based on the FPP guidance (see Appendix L):

1. An FMZ for each phase of the project shall be in place before any combustible material is brought on-site.
2. Continual training in fire prevention, communication, and fire reporting shall be provided to all on-site personnel.
3. Smoking shall be limited to designated areas that are free of vegetation and combustible materials for a minimum 30-foot distance.
4. Two water tenders (at least 3,000 gallons each) shall remain on-site until project water supply tanks are installed.
5. Two water tank trucks (at least 300 gallons each) shall remain on-site during construction and shall be within 0.25 mile of active construction areas.
6. Daily fire risk briefings shall be held with all on-site personnel.
7. Hot work shall be done under supervision in an approved area.
8. All motors on-site shall be equipped with a spark arrestor by the manufacturer.
9. Evacuation routes shall be maintained and cleared; these routes shall never be used as parking spaces.
10. Spills of combustible, hazardous, or potentially dangerous materials shall be cleaned up immediately.
11. Electrical equipment shall be unplugged when not in use, and there shall be no "jerry rigging" of extension cords.
12. All extension cords shall be rated appropriately for the work and properly grounded.
13. All vehicles shall carry, at a minimum, an approved fire extinguisher and shovel.
14. All equipment and vehicles shall be properly maintained.
15. A cache of firefighting tools and water shall be at the main staging area or at another location approved by the Site Safety Officer.

M-WF-5 **Red Flag Warning Measures**. During Red Flag Warnings the following precautions shall be taken:

1. No hot work shall be conducted during Red Flag Warnings.

2. No vehicle shall be permitted to drive over vegetation; vehicles must remain on roads or areas that are devoid of flammable vegetation.
3. "Red Flag" signage shall be displayed at the project main gate and construction office on days when the warning is issued.

M-WF-6 **Fire Protection and Mitigation Agreement.** As a condition to providing service and pursuant to the Safety Element of the General Plan, the Applicant shall enter into a Fire Protection and Mitigation Agreement with the San Diego County Fire Protection District (SDCFPD) prior to approval of a Major Use Permit to make a fair share contribution toward local emergency response capabilities. The funding shall be used by the SDCFPD to mitigate risks of wildfires and to enhance fire suppression and emergency services capabilities for the proposed project and the southeast portion of CSA 135.

CHAPTER 6. LIST OF EIR PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

This Environmental Impact Report was prepared by the County of San Diego, Planning & Development Services. The following professional staff participated in its preparation.

6.1 LEAD AGENCY

6.1.1 County of San Diego

Nick Koutoufidis, Land Use and Environmental Planner (Project Manager; contract planner)

Sean Oberbauer, Land Use and Environmental Planning Manager

Bronwyn Brown, Land Use and Environmental Planner (contract planner)

Sean McLean, Senior Civil Engineer

Taylor Ryan, Project Manager

Ashley Smith, Chief, Departmental Operations

Kendalyn White, Land Use and Environmental Planner (Biological and Aquatic Resources)

Donna Beddow, Land Use Environmental Planner (Archaeologist; contract planner)

Darin Neufeld, Land Use and Environmental Planner (contractor)

Sydnie Margallo, Land Use and Environmental Planner (contractor)

Damon Davis, Transportation Specialist

Jim Bennett, Water Resources Manager

Leanne Crow, Senior Hydrogeologist

David Sibbet, Program Coordinator, San Diego County Fire Authority

6.2 EIR PREPARATION SUPPORT

6.2.1 SWCA Environmental Consultants

Johanna Falzarano, Senior Project Manager

Kara Laurenson-Wright, Project Manager

Bobbette Biddulph, Senior Environmental Planner

Stuart Muerth, Environmental Planner

Erica Rippe, Environmental Planner

Juliet Bolding, Environmental Planner

Aramis Respall, GIS Specialist

Erin Wielenga, Air Quality and Greenhouse Gas Emissions

Robert MacAller, Biological Resources

Luis Aguilar, Aquatic Resources

Shirley Innecken, Biological Resources

Arin Thacker, Biological Resources

Sharif Durzi, Biological Resources

Omar Moquit, Biological Resources

Nick Hearth, Cultural and Tribal Cultural Resources

Michael Bever, Cultural and Tribal Cultural Resources

Liz Davidson, Cultural and Tribal Cultural Resources

Nolan Perryman, Hydrological Resources

Deidre Knodell, Technical Editor

Jaimie Jones, Technical Editor

Victoria Amato, Wildfire

Angela Chongpinitchai, Wildfire

Bob Carr, Visual Resources

Chris Bockey, Visual Resources

6.2.2 Urbana Preservation & Planning, LLC

Alexia Landa, Historian & Archaeologist

Wendy L. Tinsley Becker, Principal

6.2.3 Bruin Geotechnical Services, Inc.

Ryan D. Duke, Director

6.2.4 Michael Baker International

Jay Sullivan, Civil Engineer

Kristen Bogue, Environmental Professional

6.2.5 INTERA Incorporated

Kipp Vilker, Senior Water Resources Engineer

Trey Driscoll, Principal Hydrogeologist

6.2.6 Yorke Engineering, LLC

Julie Mitchell, Principal Scientist

Bradford Boyes, Principal Engineer

6.2.7 dBF Associates, Inc.

Steve Fiedler, Principal

6.2.8 Kittelson & Associates, Inc.

Mychal Loomis, Associate Engineer

Bincy Koshy, Transportation Analyst

6.2.9 Leighton Consulting, Inc.

Robert Stroh, Principal Engineering Geologist

Michael R. Stewart, Engineering Geologist

Steven Norton, Project Geologist

6.3 OTHER PERSONS AND ORGANIZATIONS CONTACTED

Susan Wynn, U.S. Fish and Wildlife Service

James Molden, U.S. Fish and Wildlife Service

Robert Fisher, United States Geological Survey

Melanie Burlaza, California Department of Fish and Wildlife

Heather Schmalbach, California Department of Fish and Wildlife

Kyle Dahl, U.S. Army Corps of Engineers

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