Appendix D

Biological Resources Report

Biological Resources Report for the Starlight Solar Project, Boulevard, San Diego County, California

PDS2022-MUP-22-010

JULY 2025

PREPARED FOR

County of San Diego
and
Empire II LLC

PREPARED BY

SWCA Environmental Consultants

BIOLOGICAL RESOURCES REPORT FOR THE STARLIGHT SOLAR PROJECT, BOULEVARD, SAN DIEGO COUNTY, CALIFORNIA

PDS2022-MUP-22-010

Prepared for:

County of San Diego

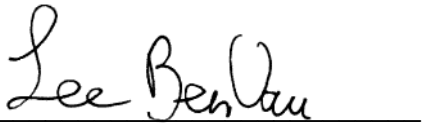
and

Empire II LLC
12302 Exposition Boulevard
Los Angeles, California 90064

Prepared by:

SWCA Environmental Consultants
3838 Camino Del Rio North, Suite 220
San Diego, California 92108
www.swca.com

SWCA Project No. 53792



Lee BenVau, Project Restoration Ecologist
County of San Diego Approved CEQA Consultant – Biological Resources

July 2025

TABLE OF CONTENTS

APPENDICES

TABLES

FIGURES

ACRONYMS AND ABBREVIATIONS

AC	alternating current
AJD	Approved Jurisdictional Determination
amsl	above mean sea level
APLIC	Avian Power Line Interaction Committee
APN	Assessor's Parcel Number
Applicant	Starlight Solar LLC
Atlas	San Diego Bird Atlas
BCC	Birds of Conservation Concern
BESS	battery energy storage system
BGEPA	Bald and Golden Eagle Protection Act
BMO	Biological Mitigation Ordinance
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEHC	California Essential Habitat Connectivity
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cm	centimeters
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of San Diego
CRPR	California Rare Plant Rank
CSS	coastal sage scrub
DBH	diameter at breast height
DC	direct current
DGS	County Department of General Services
DPW	County Department of Public Works
ECMSCP	East County Multiple Species Conservation Program
ESA	Endangered Species Act
FCA	Focused Conservation Area
FMZ	Fuel Modification Zone
FPP	Fire Protection Plan
gen-tie	generation-tie
HCP	Habitat Conservation Plan
HMP	Habitat Management Plan

I-8	Interstate 8
kV	kilovolt(s)
MUP	Major Use Permit
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
mph	miles per hour
MSCP	Multiple Species Conservation Program
MW	megawatt(s)
MWh	megawatt hour(s)
NBMMRP	Nesting Bird Management, Monitoring, and Reporting Plan
NCCP	Natural Community Conservation Plan(ning)
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NML	Nest Monitoring Log
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
OHWM	ordinary high-water mark
OSHA	Occupational Safety and Health Administration
PDS	County Planning and Development Services
PM_{10}	respirable particulate matter
project	Starlight Solar Project
PV	photovoltaic
QCB	Quino checkerspot butterfly (*Euphydryas editha quino*)
RBC	Rocks Biological Consulting
RCA	Resource Conservation Area
RMP	Resource Management Plan
RPO	Resource Protection Ordinance
SCADA	Supervisory Control and Data Acquisition
SCP	scientific collecting permit
SD&AE Railway	San Diego and Arizona Eastern Railway
SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas and Electric
SSC	Species of Special Concern
SWCA	SWCA Environmental Consultants
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USC	United States Code

USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
Water Board	California Water Resources Control Board, Regional Water Quality Control Board
WL	Watch List
WOS	Waters of the State
WOTUS	Waters of the United States
WWOS	Wetland waters of the State

SUMMARY

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 Starlight Solar Project (project) would utilize photovoltaic electric generation system technology to produce up to 100 megawatts (MW) of alternating current (AC) of solar energy at the utility scale. The project would also include an 868-MW-hour (MWh) (217-MW 4-hour batteries) battery energy storage system. The project site encompasses a total of approximately 588 acres within the Mountain Empire Subregional Plan area in unincorporated San Diego County.

The project would be constructed in two phases. Phase I encompasses approximately 125 acres plus an approximately 7-acre off-site generation-tie line area and includes the development of a photovoltaic (PV) system capable of generating up to 20 MW of solar energy and providing 17.4 MW of battery storage. Phase II encompasses approximately 456 acres and includes the development of a PV system capable of generating up to 80 MW of solar energy and providing 200 MW of battery storage.

The project boundaries were adjusted in 2023 to account for updates to the site plan and to include a previously developed and unpermitted airstrip on the property as part of the project's impacts. The airstrip is currently inactive. It would be utilized as a construction laydown area during both phases of construction. After construction of Phase II, it would be removed and hydroseeded.

A formal jurisdictional delineation was conducted by SWCA Environmental Consultants (SWCA) for the survey area (project site boundary with a 100-foot buffer) in January 2022 as well as updated surveys carried out in August and September 2023 to cover added areas to the project that were not previously surveyed. Vegetation mapping of the approximately 899-acre survey area was conducted by SWCA biologists in January 2022 and in August 2023. Rare plant surveys were conducted by SWCA from April 2022 through August 2022 and were reinitiated in August 2023. Protocol Quino checkerspot butterfly (*Euphydryas editha quino*) surveys were conducted by Rocks Biological Consulting from February through May 2022 and were reinitiated by SWCA in 2024 for updated areas not previously surveyed. This report documents survey results, as well as provides an analysis of the impacts related to the proposed project.

Based on the jurisdictional delineation, the project may impact 0.81-acre (16,320 linear feet) of California State Water Resources Control Board and the Colorado River Basin Regional Water Quality Control Board (Water Boards) WOS, 0.01 acre (25 linear feet) of wetland waters of the State (WWOS), and 2.35 acres (16,505 linear feet) of California Department of Fish and Wildlife (CDFW) jurisdictional resources. An Approved Jurisdictional Delineation (AJD) of no jurisdiction could result in zero impacts to U.S Army Corps of Engineers (USACE) regulated resources, and it is anticipated that an AJD would result in a no waters of the U.S. determination. No direct impacts to Resource Protection Ordinance (RPO) wetlands or their wetland protection buffers would 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 study area but will be flagged for avoidance. Impacts to aquatic resources may result from grading, excavation, and other ground-disturbing activities necessary to facilitate the installation of solar arrays as well as their supporting infrastructure.

Approximately 899 acres of vegetation communities and land cover categories were mapped within the survey area. Sensitive aquatic, wetland, and riparian habitats within the survey area consist of tamarisk scrub, freshwater seep, southern riparian scrub, freshwater, and alkali marsh. Sensitive upland habitat consists of granitic northern mixed chaparral, redshank chaparral, granitic chamise chaparral, montane buckwheat scrub, field/pasture, big sagebrush scrub, open coast live oak woodland, coast live oak woodland, and nonnative grassland. Non-sensitive land cover categories consist of disturbed land, bare ground, and urban/developed land.

Nine sensitive plant species have been observed on the project site: Jacumba milk-vetch (*Astragalus douglasii* var. perstrictus), long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), Tecate tarplant (*Deinandra* floribunda), sticky geraea (*Geraea viscida*), desert beauty (*Linanthus bellus*), Payson's jewelflower (*Caulanthus simulans*), Colorado desert larkspur *(Delphinium parishii* subsp. *subglobosum*), low bush monkeyflower (*Diplacus aridus*), and pride-of-California (*Lathyrus splendens*)**.**

Fourteen sensitive wildlife species have been detected on the project site: Cooper's hawk (*Accipiter cooperi*), sharp-shinned hawk (*Accipiter striatus*), Bell's sage sparrow (*Artemisiospiza belli belli*), turkey vulture (*Cathartes aura*), California horned lark (*Eremophila alpestris actia*), western bluebird (*Sialia mexicana*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), mule deer (*Odocoileus hemionus*), mountain lion (*Puma concolor*), Southern California legless lizard (*Anniella stebbinsi*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), coast horned lizard (*Phrynosoma blainvillii*) and western spadefoot (*Spea hammondii*). An additional 25 species have high potential to occur within the project site.

The project would result in permanent direct impacts to a total of approximately 563.59 acres of land, including 124.91 acres in Phase 1 (which includes impacts associated with a 7-acre off-site generation-tie line area) and 438.68 acres in Phase 2. Impacts to sensitive habitats would require conservation of approximately 77.11 acres for Phase 1 and 347.25 acres for Phase 2, totaling 424.36 acres, which would be achieved at an off-site mitigation site immediately south of the project that totals approximately 447.93 acres.

Short- and long-term direct and indirect impacts resulting from implementation of the proposed project would affect special-status plants, special-status animals and wildlife movement, special-status vegetation communities and sensitive habitat lands, and jurisdictional resources. These impacts would be significant without mitigation. Mitigation measures for each of these impacts are proposed to reduce the significant impacts to a level of less than significant and include habitat conservation, biological monitoring, best management practices, wildlife surveys and monitoring, pollutant and weed control, dust control, and fire management.

1.0 INTRODUCTION

1.1 Purpose of the Report

The purpose of this report is to document the biological resources identified as present or potentially present on the Starlight Solar Project (project) site; to identify potential biological resource impacts resulting from the proposed project; and to recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with federal, state, and local rules and regulations, including the California Environmental Quality Act (CEQA).

1.2 Project Location and 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 the southeastern region of the county (Figure 1).

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-Mexico border (Figure 2). 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 connects to Old Highway 80 in Boulevard. Additional emergency fire access would be provided via Tule Jim Lane, which connects to Old Highway 80.

Table 1 lists the Assessor's Parcel Numbers (APNs) within the project site, the generation-tie (gen-tie) line route, the San Diego Gas and Electric (SDG&E) Boulevard East Substation, and the mitigation site; these APNs are also shown in Figure 3 and Figure 4.

Table 1. Project Site and Associated Project Features APNs

Project Site	Gen-Tie Route	Mitigation Site	SDG&E Boulevard East 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			
659-020-06			
659-020-08			
659-080-02			
659-080-09			

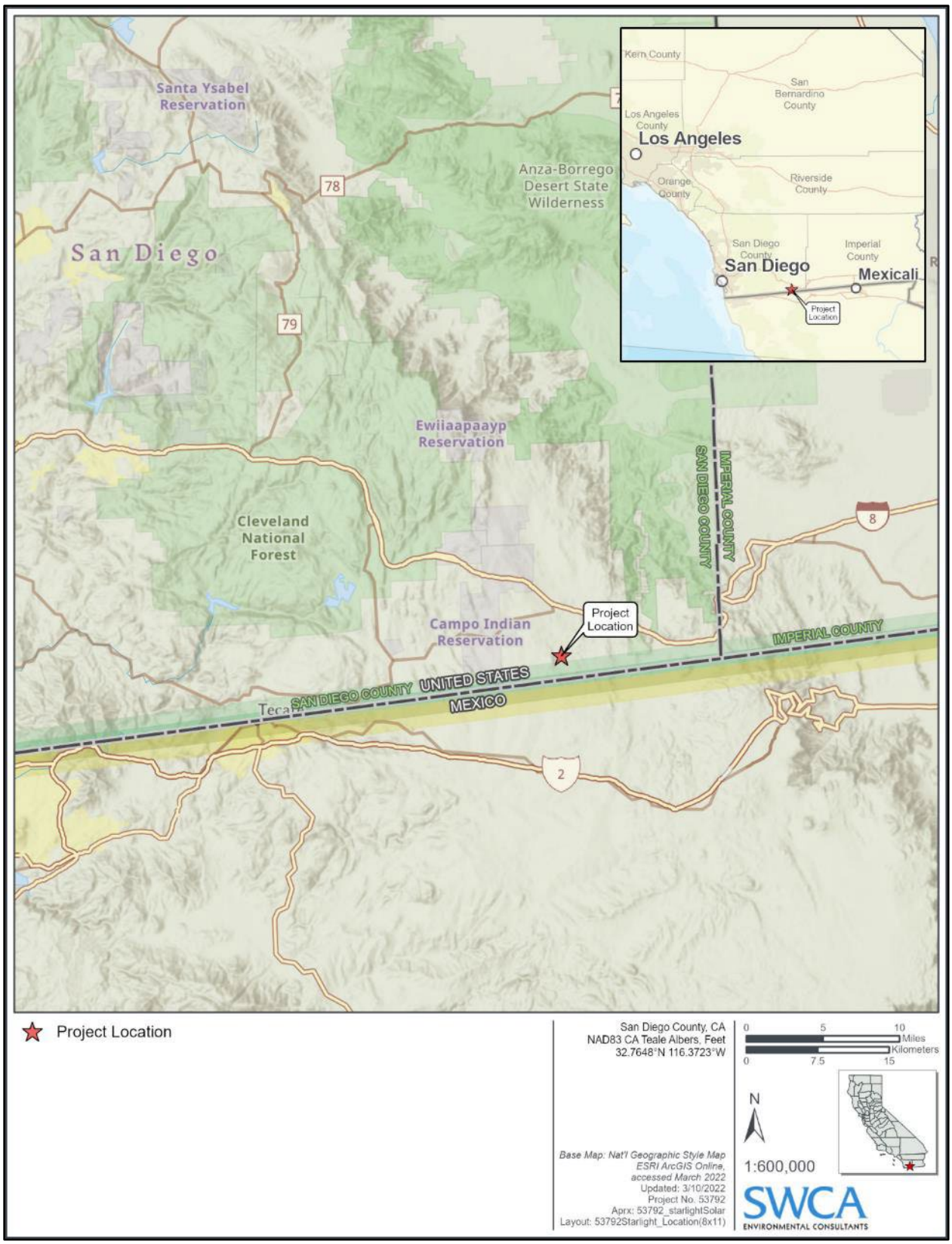


Figure 1. Regional Location Map.

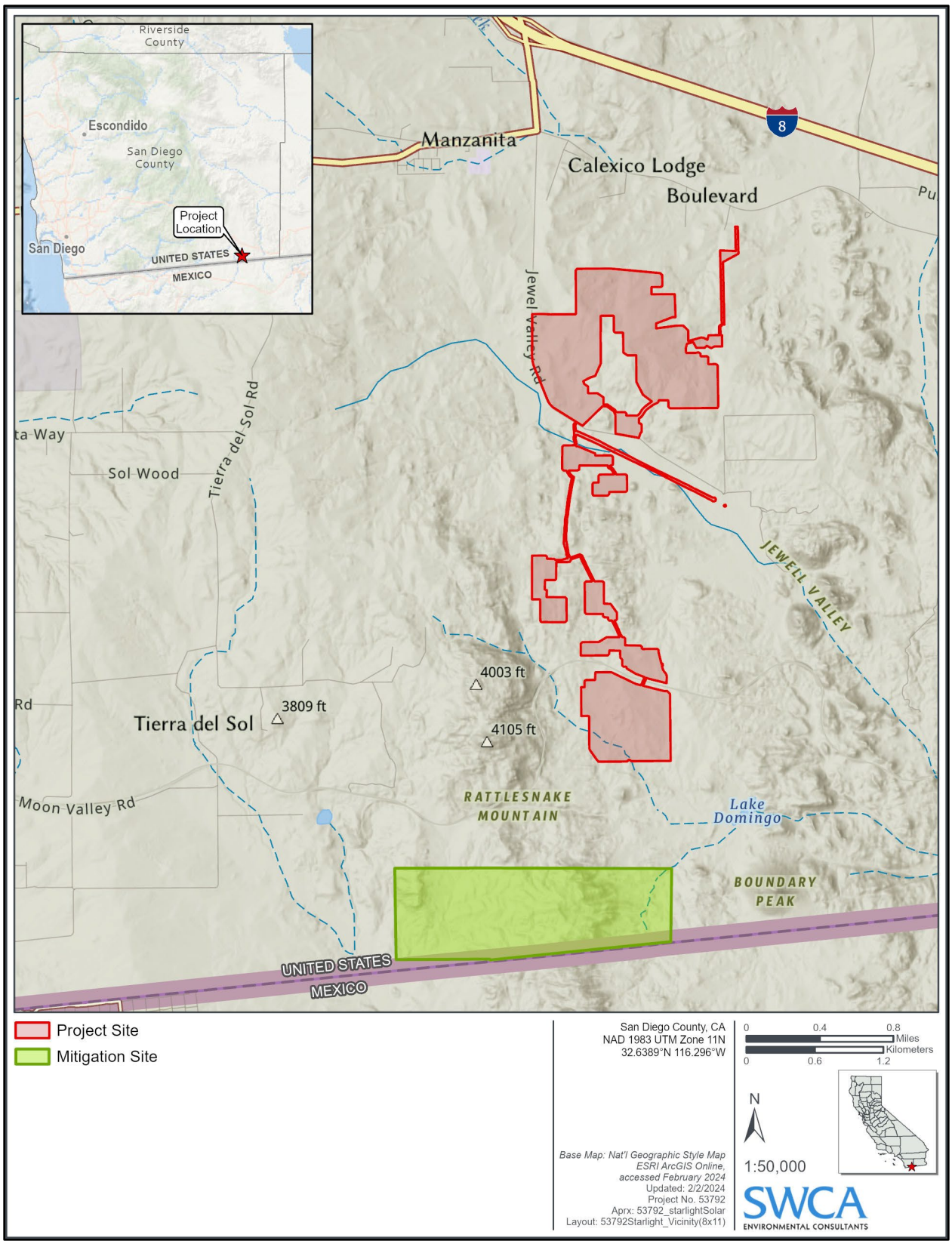


Figure 2. Vicinity Map.

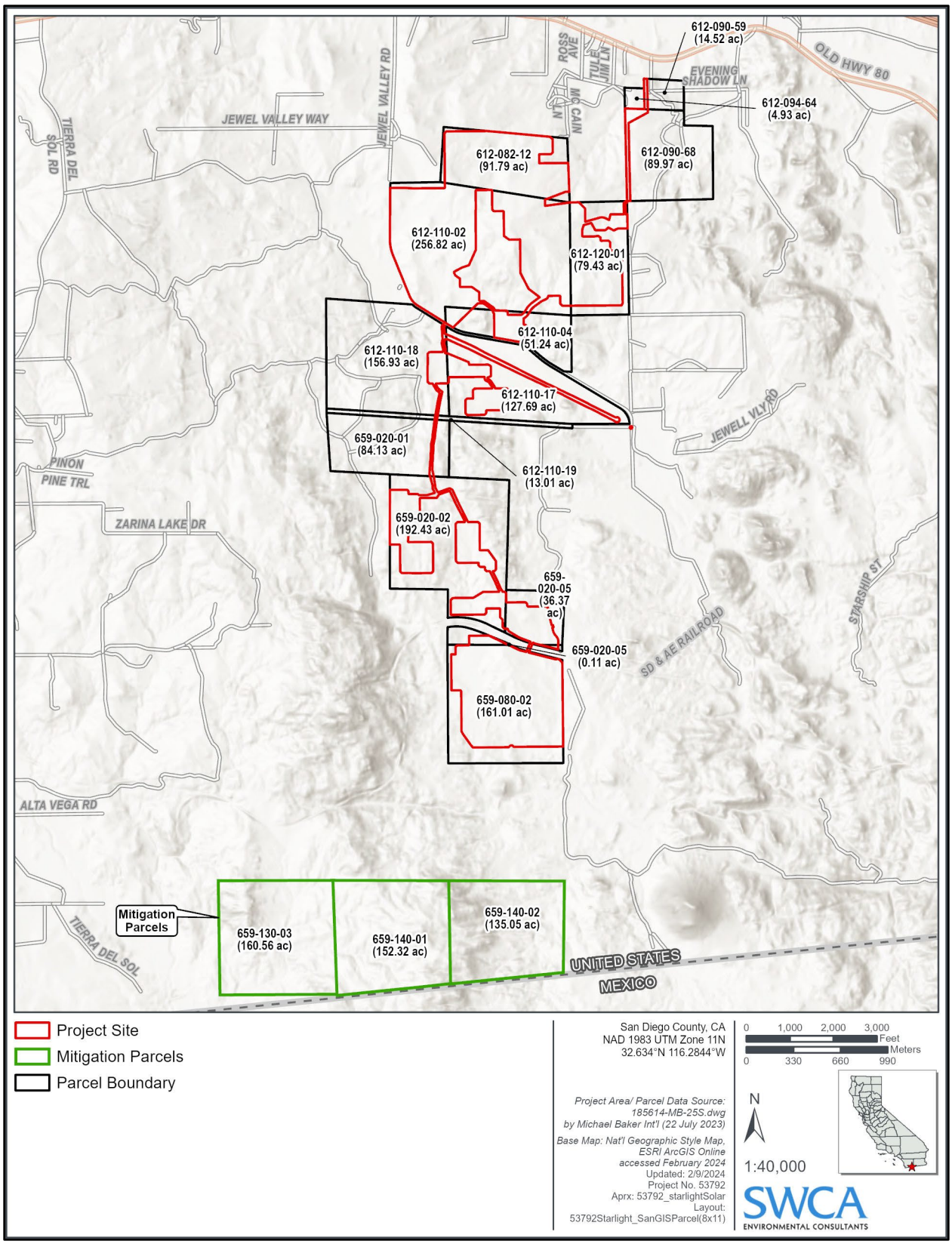


Figure 3. Project Site APN Map.

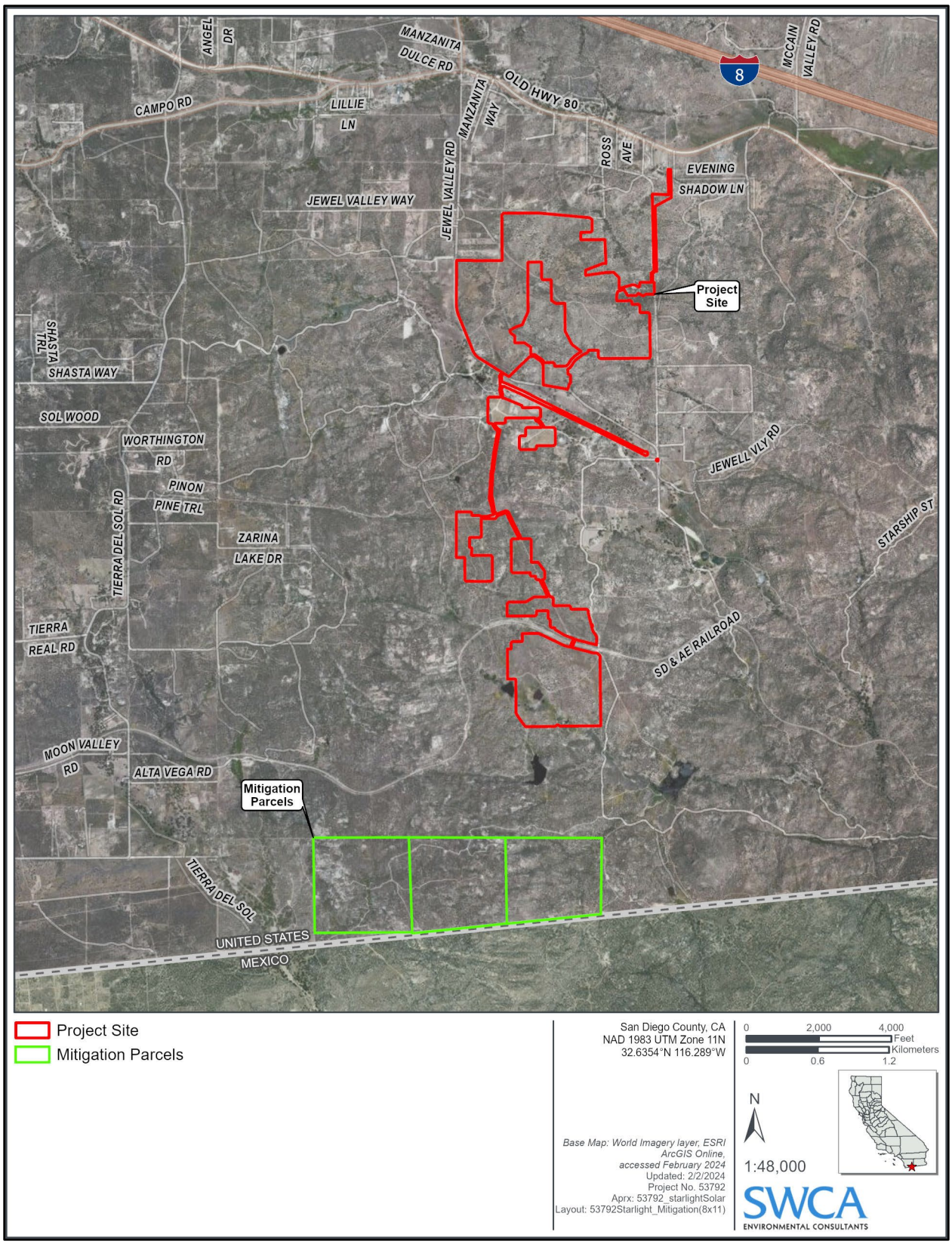


Figure 4. Off-Site Mitigation Site Parcel Map.

The County's General Plan (County of San Diego 2021a) designates the project site as Rural Lands 80 (RL-80) and the gen-tie route and SDG&E Boulevard East Substation as Semi-Rural Residential (SR-10). and the County's Zoning Ordinance identifies the project site, gen-tie route, and SDG&E Boulevard East Substation as General Rural (S-92) (Figure 5).

The project would use photovoltaic (PV) electric generation system technology to produce up to 100 megawatts (MW) of alternating current (AC) solar energy at the utility scale. The project would also include a 217.4-MW battery energy storage system (BESS) and a collector substation (Figure 6). Additionally, the project would include the creation of a biological conservation easement within portions or all of APNs 659-130-03, 659-140-01, and 659-140-02. No project impacts will occur within the mitigation site parcels.

The project would be constructed in two separate phases (Figure 7). Phase I encompasses approximately 125 acres and includes the development of a PV system capable of generating up to 20 MW of solar energy and providing 17.4 MW of battery storage. Phase II encompasses approximately 456 acres and includes the development of a PV system capable of generating up to 80 MW of solar energy and providing 200 MW of battery storage.

The MUP area would be 581 acres. An underground gen-tie line as part of the total 588-acre project site would be located on the east side of Tule Jim Lane and connect into the southeastern corner of the SDG&E Boulevard 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.

The project would include the following primary components:

- Approximately 235,516 PV modules would be mounted on support structures (typically single-axis). The final number of modules and support structures will 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 East Substation. It will consist of two lines—a 69-kV line and a 138-kV line—that will be strung overhead to cross Tule Jim Lane and will be located underground the rest of the way.
- A 217.4-MW BESS would be located on approximately 5.14 acres in two locations.
- 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.
- Project equipment would be surrounded by 30- to 100-foot fuel modification zones.
- Biological resource mitigation site would be conserved and managed south and west of the project site within APNs 659-130-03, 659-140-01, and 659-140-02.

1.3 Open Space Easement Areas

The project contains 15 cultural open space easement areas designed to protect sensitive cultural resources within the MUP project site, as shown in Figure 6 totaling 24.44 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 and 1 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 cultural open space easement areas totaling 7.08 acres. Phase 2 would include eleven cultural open space easement areas totaling 17.36 acres (see Figure 6).

As shown in Figure 2, 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 448-acre area. The recordation of each open space easement would occur prior to the issuance of a grading permit for each phase.

To verify and categorize habitat types within the site, SWCA biologists conducted vegetation mapping in the proposed mitigation parcels from June 6 to June 8, 2022. 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.

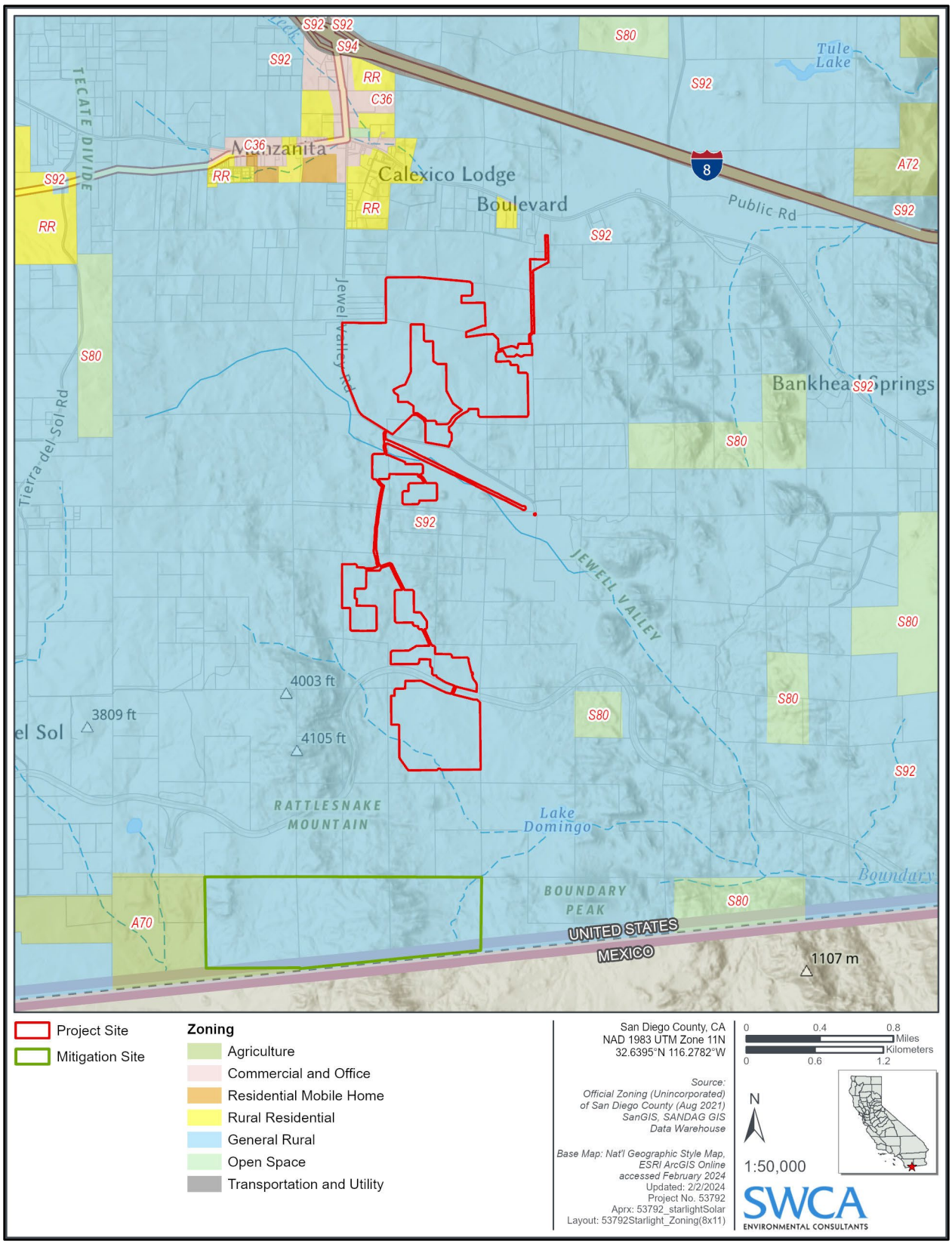


Figure 5. Zoning Map.

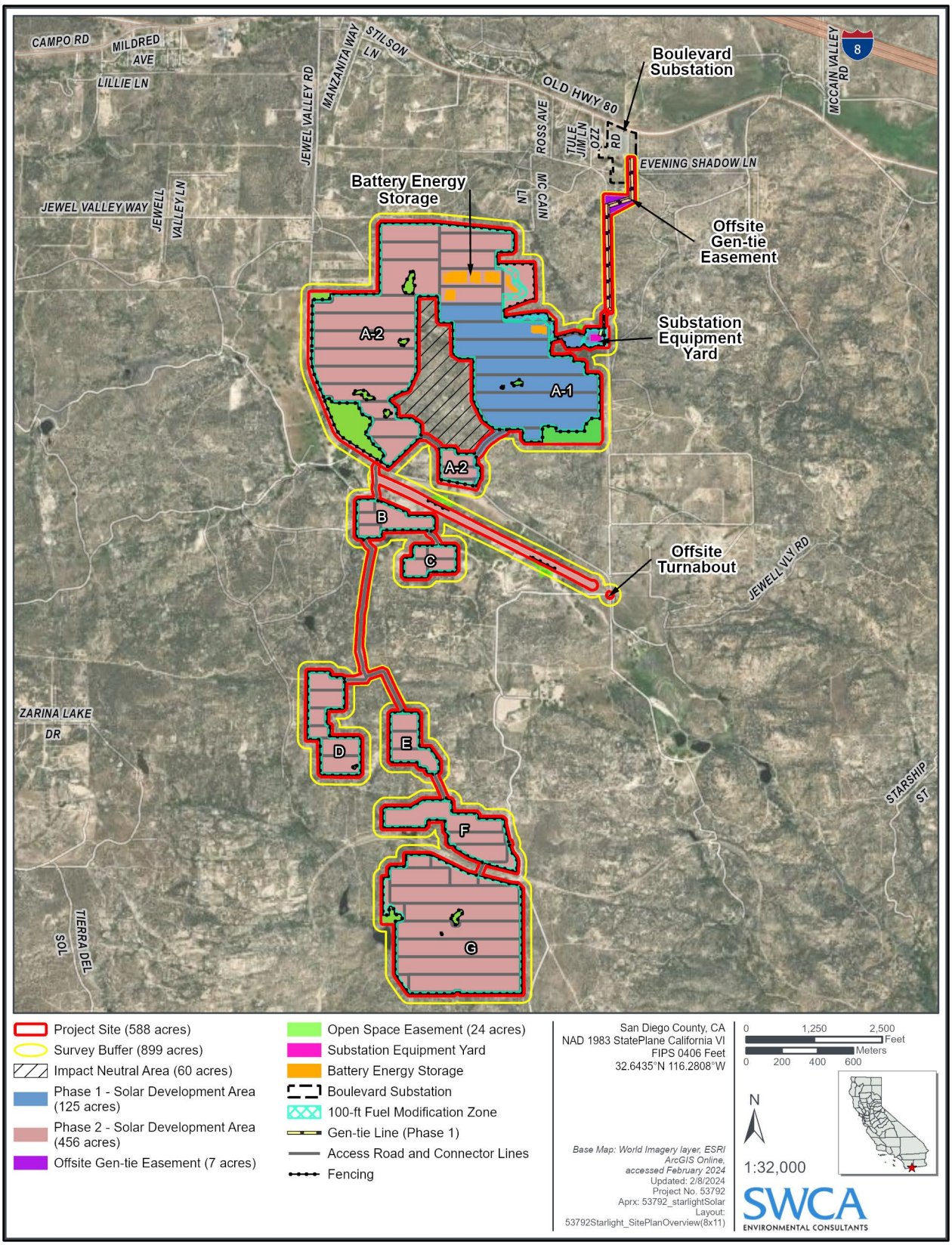


Figure 6. Project Site Plan Map.

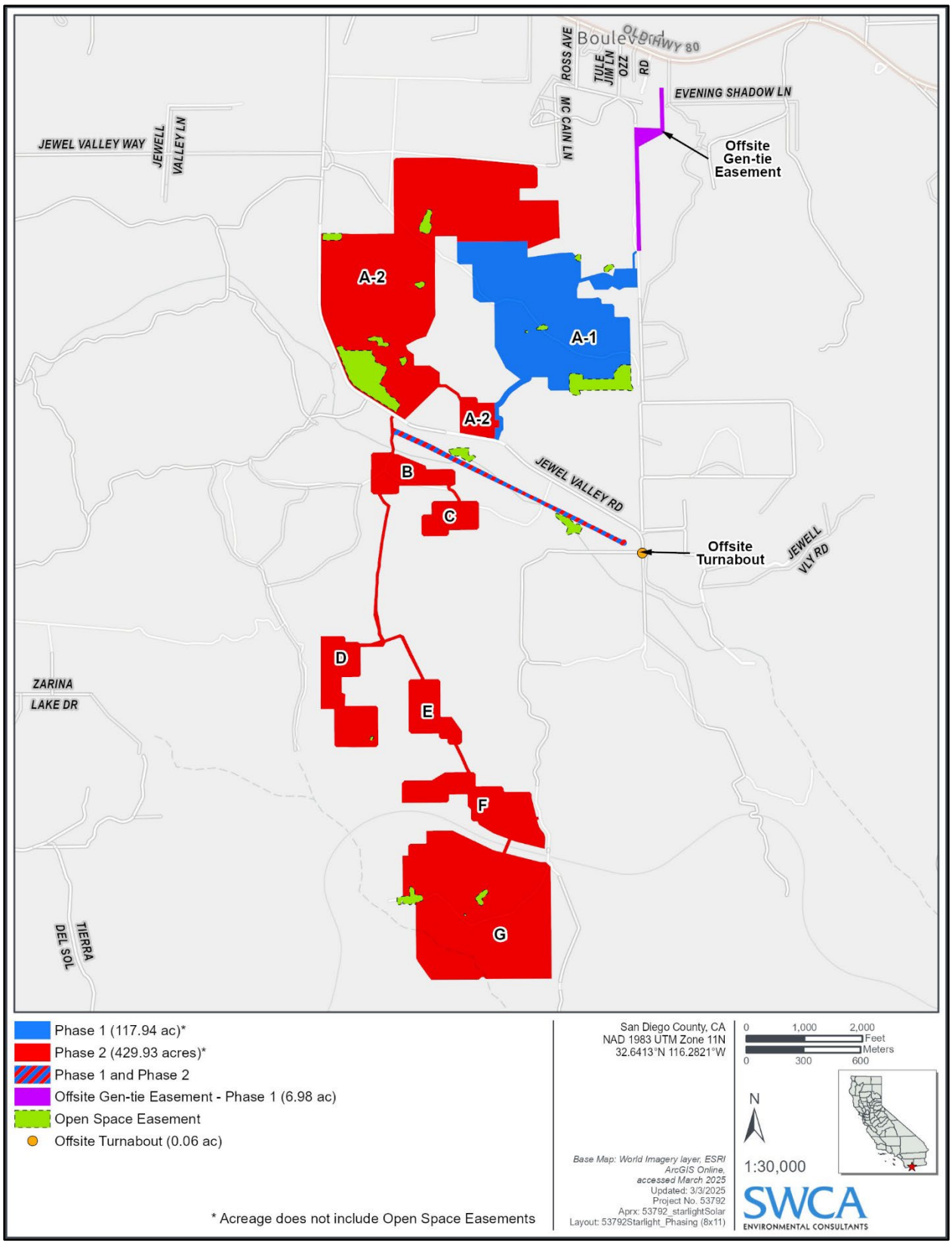


Figure 7. Project Phasing Map.

1.4 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 one-year gap between construction of Phase I and Phase II. With the exception of the substation, which would be constructed during Phase I, construction of both phases of the project would 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.

1.4.1 Site Preparation, Grading, and Stormwater Protection

Construction of the project would involve clearing and grubbing of the existing vegetation within the project site, after species relocations were completed. Approximately 564 acres throughout the site would be disturbed, which excludes the 24 acres as part of the Open Space Easement Areas. 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 foundations and 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 1 and Phase 2. 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 (respirable particulate matter [PM_{10}]) during the construction phase of the proposed project (see Project Design Feature HYD-3). These measures would include:

- The applicant would apply water three times per day or as necessary depending on weather conditions to suppress fugitive dust during grubbing, clearing, grading, trenching, and soil compaction. These measures would be applied to all active construction areas, unpaved access driveways, parking areas and staging areas as necessary.
- Sweepers and water trucks will be used to control dust and debris at public street access points.
- Internal construction driveways will be stabilized by paving, chip sealing, or nontoxic soil binders after rough grading.
- Exposed stockpiles (e.g., dirt, sand) will be covered and/or watered or stabilized with nontoxic soil binders, tarps, fencing, or other suppression methods as needed to control emissions.
- Traffic speeds on unpaved driveways will be limited to 15 miles per hour (mph).
- All haul and dump trucks entering or leaving the site with soil or base material will maintain at least 2 feet of freeboard or cover loads of all haul and dump trucks securely.
- Disturbed areas will be reseeded with a native plant hydroseed mix as soon as possible after disturbance.
- In order to provide dust control and minimize erosion during project operation, at least 70% vegetation cover shall 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 shall be reseeded with a native hydroseed mix that shall be approved by the County Landscape Architect prior to reseeding.

1.5 Survey Methodologies

This section of the Biological Resources Report identifies the methods used to describe and evaluate the biological resources at the project site and a 100-foot buffer, referred to as the survey area. SWCA searched for literature and database sources to identify biological resources that may occur at the proposed project, based on previously recorded occurrences at or near the proposed project, published literature, and staff biologists' professional experience and judgment. Field surveys were conducted from January 2022 through May 2024 to characterize existing conditions and biological resources.

1.5.1 Desktop Study and Literature Review

The literature review consisted of analyzing publicly available spatial data from a variety of public agencies, geospatial data warehouses, and previously written reports from the vicinity of the

project and surrounding nine-quadrangle buffer area to ensure that current and accurate data were integrated into the review. The U.S. Geological Survey (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.

Pertinent sources reviewed included, but were not limited to, the following:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) RAREFIND 5 (CDFW 2024a)
- CDFW *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2024b) and *Special Animals List* (CDFW 2024c)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2024a)
- Jepson eFlora (Jepson Flora Project 2024)
- The Consortium of California Herbaria (2024)
- eBird (2024) online database of bird distribution and abundance
- *A Guide to the Reptiles and Amphibians of California* (Nafis 2012)
- NatureServe Explorer (NatureServe 2024)
- U.S. Fish and Wildlife Service (USFWS) species information (USFWS 2024a) and Information for Planning and Consultation (USFWS 2024b)
- Google Earth aerial imagery (Google Earth 2024)
- *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a)
- *County of San Diego Report Format and Content Requirements: Biological Resources* (County of San Diego 2010b)
- *Planning Agreement by and among the County of San Diego, the California Department of Fish and Wildlife, and the United States Fish and Wildlife Service regarding the North and East County Multiple Species Conservation Program Plans: Natural Community Conservation Program Plans and Habitat Conservation Plans, Third Restated and Amended* (County of San Diego 2021b)
- Biological resource reports from similar nearby projects (Dudek 2014, 2015)

Habitat designations and vegetation communities in this report follow Holland (1986) as updated by Oberbauer et al. (2008). Plant taxonomy and nomenclature follow Jepson eFlora (Jepson Flora Project 2024) for scientific names and most common names, CNDDB (CDFW 2024a) for special-status plant common names and the scientific names for taxa that Jepson eFlora does not recognize, Calflora (2024) for common names not included in Jepson eFlora, and *Checklist of the Vascular Plants of San Diego County, 5th Edition* (Rebman and Simpson 2014) for common names of taxa without unique common names on Calflora. Wildlife taxonomy and nomenclature in this report follow Crother (2008) for reptiles and amphibians, American Ornithological Society

(2024) for birds, North American Butterfly Association (2001) for butterflies, and Wilson and Reeder (2005) for mammals.

1.5.2 Field Surveys

Field surveys were conducted within the survey area to document current conditions and biological resources. Field notes were maintained throughout each survey. All on-site habitats were mapped according to the County's biological resource mapping guidelines. Habitat mapping included the entirety of the survey area which included adjoining properties. Buffer areas overlapping adjoining properties were observed from the project site or public roadways. In addition to habitat mapping, plant and animal species observed were documented. Plant species that could not be identified in the field were collected for later identification. Wildlife species were identified visually, by their vocalizations, or by burrows, nests, scat, tracks, or other signs. Any observed special-status species were noted, and their locations were mapped. The potential for special-status species was evaluated based on factors such as presence/absence of suitable prey and vegetation, microhabitats such as rock outcrops, soil, topography, water availability, elevation, proximity to development and other anthropogenic effects, and the overall size of available habitat, as applicable. Habitat mapping and the locations of special-status species were documented via ArcGIS application on tablets connected to GPS units with submeter accuracy.

Survey limitations for habitat mapping include underrepresentation of early-spring-blooming annual species due to time of year and nocturnal species due to time of day. Spring rare plant surveys were conducted at the height of the blooming season for most spring-blooming annuals during a non-drought year. Only high-level vegetation mapping was conducted on the mitigation site. Focused surveys for special-status plants and wildlife, as well as aquatic resources, have not been conducted on the mitigation site. Table 2 provides a summary of surveys conducted on-site to date.

Table 2. Summary of Site Surveys

Date	Time	Temperature (°F)	Sky	Wind (mph)	Survey Type	Surveyor(s)
01/10/22	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/11/22	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/12/22	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/13/22	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/14/22	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar and Lauren Strong
01/24/22	1000–1615	60–66	Clear, dry, sunny skies	5–15	Aquatic Resources Delineation, Vegetation Mapping	Tamara Kramer, Shirley Innecken, Luis Aguilar, and Lauren Strong
01/25/22	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

Date	Time	Temperature (°F)	Sky	Wind (mph)	Survey Type	Surveyor(s)
01/26/22	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
01/27/22	0730–1330	44–60	Clear, dry, sunny skies	0–5	Vegetation Mapping	Tamara Kramer and Lauren Strong
01/28/22	0730–1330	39–53	Dry, 50% cloud cover	5–10	Vegetation Mapping	Tamara Kramer and Lauren Strong
2/22/222					QCB Habitat Mapping	Jim Rocks
2/28/22					QCB Survey	
04/05/22	0730–1445	62–81	Dry, clear	3–5	Rare Plants 1	Tamara Kramer, Lee BenVau, and Ryan Myers
04/06/22	0730–1400	66–78	Dry, clear	1–8	Rare Plants 1	Tamara Kramer, Lee BenVau, and Ryan Myers
04/07/22	0730–1350	63–73	Dry, clear	5–20	Rare Plants 1	Tamara Kramer, Lee BenVau, Ryan Myers, and Lauren Strong
04/08/22	0730–1200	64–75	Dry, clear	5–10	Rare Plants 1	Tamara Kramer and Ryan Myers
04/11/22	0730–1330	56–64	Dry, 40%–60% cloud cover	15–25	Rare Plants 1	Tamara Kramer and Shirley Innecken
04/12/22	0730–1430	37–52	50%–100% cloud cover	1–4	Rare Plants 1	Tamara Kramer and Lee BenVau
04/13/22	0730–1330	40–65	Clear	0–3	Rare Plants 1	Tamara Kramer and Lee BenVau
04/14/22	0730–1500	47–68	Clear	0–1	Rare Plants 1	Tamara Kramer and Lee BenVau
04/19/22	0730–1400	58–70	Clear	0–10	Rare Plants 1	Tamara Kramer and Lee BenVau
04/20/22	0730–1545	46–63	Clear	5–10	Rare Plants 1	Tamara Kramer and Lee BenVau
06/07/22	0700–1400	73–88	Clear	2–5	Rare Plants 2	Tamara Kramer and Lee BenVau
06/08/22	0700–1205	75–89	Clear	1–3	Rare Plants 2, Mitigation Site Vegetation Mapping	Tamara Kramer and Lee BenVau
08/25/22	0630–1300	70–92	Clear	5–10	Rare Plants 3	Tamara Kramer and Lee BenVau
08/22/23	0700–1400	65–88	Clear	0–5	Vegetation Mapping, Rare Plants 4	Tamara Kramer and Lee BenVau
08/30/23	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar, Lauren Strong, and Omar Moquit
08/31/23	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar, Lauren Strong, and Omar Moquit
09/01/23	–	–	–	–	Aquatic Resources Delineation	Luis Aguilar, Lauren Strong, and Omar Moquit
02/28/22					QCB Survey	Paul Lemons

Date	Time	Temperature (°F)	Sky	Wind (mph)	Survey Type	Surveyor(s)
04/16/24	7:30-15:00	56-68	0-5% cloud cover	0-1	Rare Plants 4	Lauren Strong and Danielle Parsons
04/28/25	--	--	--	--	Crotch's Bumble Bee Habitat Verification Surveys	Sharif Durzi and Parker Richardson
04/29/25	--	--	--	--	Crotch's Bumble Bee Habitat Verification Surveys	Sharif Durzi and Parker Richardson

Note: Times given in military format.

°F = degrees Fahrenheit; mph = miles per hour

1.5.3 Focused Surveys for Special-Status Plants

Rare plant surveys were conducted in 2022 for a previous design of the project spanning a 592-acre project site and 1,005-acre survey area. The early spring survey was conducted between April 5 and April 20, 2022. Late spring surveys occurred June 7 and June 8, 2022. Summer surveys were conducted August 25, 2022. Focused surveys were conducted at the appropriate time of year for identification of target species (e.g., when blooming and/or fruiting). Field survey methods conformed to CNPS *Botanical Survey Guidelines* (CNPS 2001) and CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018). Surveys were conducted by walking meandering transects to detect special-status species. Special-status plant observations were collected via ArcGIS application on tablets connected to Geode GPS units with submeter accuracy. Points were taken for individuals and small groups consisting of 10 or fewer individuals, while polygons were used for groups of more than 10 individuals.

Given that the project design was updated in 2023, early and late spring rare plant survey were conducted for approximately 71 acres of the update areas not previously included as part of the now 588-acre project site. Summer surveys were conducted on August 22, 2023, and spring surveys were conducted on April 16, 2024, which covered the expanded project site.

1.5.4 Focused Surveys for Quino Checkerspot Butterfly

Focused Quino checkerspot butterfly (*Euphydryas editha quino*) (QCB) surveys consisting of a habitat assessment and protocol surveys were conducted on the project site and a surrounding 150-foot buffer. Rocks Biological Consulting (RBC) sent a 15-day pre-survey letter to the USFWS stating RBC's intent to conduct protocol QCB surveys on-site. RBC biologists Jim Rocks (TE-063230-5.7), Ian Hirschler (TE-063230-5.7), Brian Lohstroh (TE-063608-6), Ryan Meszaros (TE-20186A-3.1), David Faulkner (TE-838743-7), Brenda Bennett (TE-063230-5.7), and Melanie Rocks (#00354040) made up the list of permitted surveyors.

A habitat assessment was conducted by Jim Rocks on February 2, 2022; the assessment covered the project site plus a surrounding 150-foot area buffer which together total 824 acres (the QCB survey area). Habitat was determined to be suitable or non-suitable in accordance with QCB survey guidelines (USFWS 2014). The habitat assessment determined that 637 acres of suitable QCB habitat were present within the QCB survey area.

The protocol surveys were conducted between February 28 and May 14, 2022. The QCB survey area was divided into 10 survey areas, each containing approximately equal acreages of QCB suitable habitat to ensure the appropriate acreage was surveyed each survey day. If non-protocol weather conditions prevented surveys, a makeup survey was conducted in accordance with the guidelines.

Survey methods consisted of walking through the QCB survey area at approximately 10 acres per person hour and identifying butterflies in hand or with binoculars. Surveys were conducted on clear, sunny days (less than 50% cloud cover) when ground temperatures were above 60 degrees Fahrenheit or on overcast days (greater than 50% cloud cover) when ground temperatures were above 70 degrees Fahrenheit. Ground temperatures were measured in the shade prior to starting surveys and at the end of each survey. Surveys were generally conducted between the hours of 0830 and 1745. Surveys were not conducted in sustained winds greater than 15 mph.

An additional habitat assessment was conducted on February 8, 2024, and protocol QCB surveys were conducted between February 28 and May 9, 2024, to cover updated areas not previously included as part of the project. Paul Lemons (ES051248-7) was the permitted surveyor.

1.5.5 Habitat Verification Surveys for Crotch's Bumble Bee

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 (see Appendix I). 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.

1.5.6 Jurisdictional Wetlands Delineation

The U.S. Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) was used to conduct preliminary data gathering of existing information and select sources of information helpful in assessing site conditions, extracting pertinent data, and synthesizing the data in advance of conducting fieldwork. The following data sources were selected and reviewed:

USGS quadrangles to review streams, topographic details, wet areas, drainage patterns, and general land uses.

USFWS National Wetlands Inventory maps to review the potential location and classification of resources that designate the regime modifier and flooding or soil saturation characteristics (USFWS 2024c).

- Natural Resources Conservation Service (NRCS) Web Soil Survey to review general climate information, wetness characteristics of soils, soil properties (frequency, duration, and timing of inundation), and soil classification (soil series and phases) (NRCS 2024).

- Google Earth historic and current aerial imagery to review potential wet areas, streams, stream connectivity, and other physical features potentially affecting flow (Google Earth 2024).
- Calflora plant database to review recorded plants found within or near the survey area (Calflora 2024).

The aquatic resource delineation was conducted in accordance with the 1987 USACE Wetland Delineation Manual and regional supplements, including the 2008 *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008a), and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (USACE 2008b) using the USACE 2023 waters of the United States (WOTUS) rule, as amended (*Federal Register* 88:61964), and Section 1600 of the CDFW California Fish and Game Code. Section 404 includes potentially jurisdictional WOTUS by USACE. In general, the 2023 WOTUS amended rule removes the significant nexus test from consideration when identifying tributaries and other waters. It also requires that federally jurisdictional wetlands be adjacent through a continuous (relatively permanent) surface connection and clarifies the types of features that are considered under the 'additional waters' category." Section 401 includes potentially jurisdictional waters of the State (WOS) by the California Water Resources Control Board and its Regional Water Quality Control Boards (Water Boards). Section 1600 identifies potentially jurisdictional streambed by CDFW. Agency jurisdictions expressed in this report represent the professional judgement of SWCA. They are preliminary and at the final discretion of the applicable agencies. All assessed WOS within the survey area have the potential to be considered WOTUS; however, due to an assessed lack of connectivity of aquatic resources within the project site to WOTUS or a Traditional Navigable Water, SWCA preliminarily concludes that there are no WOTUS within the project site; however, an Administrative Jurisdictional Determination (AJD) would be needed to confirm these findings. However, given the physical impossibility of any WOTUS in this area, a Preliminary Jurisdictional Determination asserting the same status may be utilized. In that case, instead of a 401 Certification, Waste Discharge Requirements from the Water Boards will be obtained.

An aquatic resources delineation field survey was conducted by SWCA delineators from January 10–14 and January 24–26, 2022, within the survey area. To accommodate updates to the project design, a subsequent aquatic resources delineation field survey was conducted by SWCA delineators from August 30 to September 1, 2023. Aquatic resource features were mapped, and ordinary high-water mark (OHWM) indicators were evaluated and recorded. USACE Wetland Determination Data Forms Arid West Region and USACE Arid West Ephemeral and Intermittent Streams OHWM Datasheets were completed to document the findings. Six wetland determination sampling plots (SP01–SP06) were examined at locations exhibiting potential hydrophytic vegetation and hydrology indicators. Four representative OHWM datasheets were filled out to represent the range of drainage characteristics observed on-site. The sample plots and drainages were documented in photographs. All data were recorded using the Esri ArcGIS Field Maps collector application paired to a Juniper Systems Geode receiver with submeter location accuracy. Following the collection of field data, data were reviewed and processed for mapping.

1.5.7 Environmental Setting

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

On-site elevation generally ranges from 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.

Five soil series are mapped within the survey area (NRCS 2024):

- Mottsville loamy coarse sand, 2 to 9 percent slopes (MvC);
- La Posta loamy coarse sand, 5 to 30 percent slopes, eroded (LaE2);
- Tollhouse rocky coarse sandy loam, 5 to 30 percent slopes, eroded (ToE2);
- La Posta loamy coarse sand, 5 to 30 percent slopes, severely eroded (LaE3), and
- La Posta rocky loamy coarse sand, 5 to 30 percent slopes, eroded (LcE2).

None of the soils mapped within the survey area are considered hydric. LaE2, LaE3, and MvC are the most common soils in the survey area.

MvC soils consist of 85% Mottsville and similar soils, and 15% minor components. Minor components consist of 5% Bull Trail, 5% La Posta, and 5% Calpine. Parent material for Mottsville soils is alluvium derived from granite. The top horizon (0–6 inches below the soils surface) consists of loamy coarse sand with deeper soils consisting of a stratified sand to loamy sand texture. These soils are considered well drained and are associated with 2 to 9 percent slopes. MvC soils and their minor components are not considered hydric. All five wetland determination sampling pits were examined within MvC mapped soils. Soils observed within SP01 through SP05 are generally consistent with the mapped soils series. SP01 through SP05 consisted mostly of silty clay loam on the top few inches of their respective pedons, and silty clay to sandy clay loam deeper in the soil horizon.

LaE2 soils consist of 85% of La Posta and similar soils and 15% minor components. Minor components consist of 5% Tollhouse, 5% Kitchen Creek, and 5% Rock Outcrops. Parent material for La Posta and similar soils is residuum weathered from granodiorite. The top horizon (0–10 inches below the soil surface) consists of a loamy coarse sand texture. Deeper soils consist of a gravelly loamy coarse sand texture. LaE2 soils are considered somewhat excessively drained and are associated with 5 to 30 percent slopes. LaE2 soils and their minor components are not considered hydric.

ToE2 soils consist of 65% Tollhouse and similar soils, 25% rock outcrops, and 10% minor components. Rock outcrops are characterized as unweathered bedrock. Minor components consist of 4% Kitchen Creek, 3% Mottsville, and 3% La Posta. Parent material for Tollhouse and similar soils is residuum weathered from granodiorite. The topsoil horizon (0–16 inches below the soil surface) consists of a gravelly coarse sandy loam texture. These soils are considered

somewhat excessively drained and are associated with 5 to 20 percent slopes. ToE2 soils in their entirety are not considered hydric.

LaE3 soils consist of 85% La Posta and similar soils and 15% minor components. Minor components consist of 5% Tollhouse, 5% Kitchen Creek, and 5% Rock Outcrops. Parent material for La Posta and similar soils is residuum weathered from granodiorite. The top horizon (0–8 inches below the soil surface) consists of a loamy coarse sand texture. Deeper soils consist of a gravelly loamy coarse sand texture. LaE3 soils are considered somewhat excessively drained and are associated with 5 to 30 percent slopes. LaE3 soils and their minor components are not considered hydric.

LcE2 soils consist of 85% La Posta and similar soils and 15% minor components. Minor components consist of 5% Tollhouse, 5% Kitchen Creek, and 5% Rock Outcrops. Parent material for La Posta and similar soils is residuum weathered from granodiorite. The top horizon (0–8 inches below the soil surface) consists of a loamy coarse sand texture. Deeper soils consist of a gravelly loamy coarse sand texture. LcE2 soils are considered somewhat excessively drained and are associated with 5 to 30 percent slopes. LcE2 soils and their minor components are not considered hydric.

The project site is currently undeveloped and is surrounded by undeveloped and rural residential land (SanGIS 2024).

1.5.8 Regional Context

The project is located within the Mountain Empire Subregional Plan area in southeastern unincorporated San Diego County. The Mountain Empire Subregional Plan area contains five subregional group areas. The project site is located in the Boulevard Subregional Planning Area. Figures 1 and 2 show the location of the project site in Boulevard, California. The project site is located south of 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 ultimate goal is establishment of biological reserve areas that conform with the State Natural Community Conservation Planning (NCCP) Act and contribute to the preserve system already established by the approved Multiple Species Conservation Program (MSCP). The project site is within the in-process East County MSCP (ECMSCP) area (Figure 8).

Projects within the ECMSCP planning region were governed by a 2014 Planning Agreement involving the County, CDFW, and 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, and the County is now making progress in completing the North County MSCP plan. The current evaluation of the project is conducted in light of prospective plans for a future ECMSCP Plan. Figure 9 shows the planned land use of the project site and surrounding areas. All land on-site and surrounding the project site is planned for spaced rural residential.

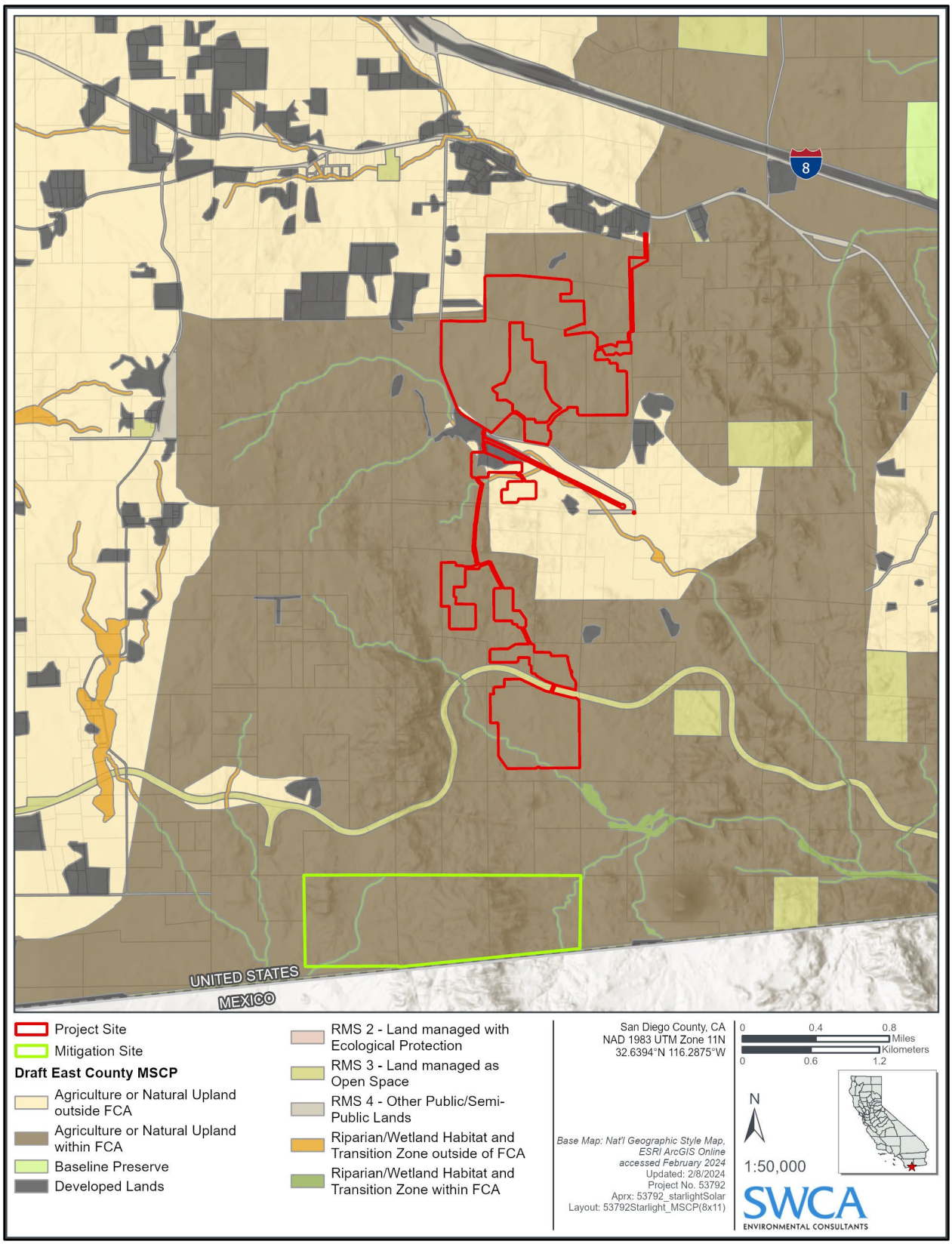


Figure 8. East County Multiple Species Conservation Program Designation Map.

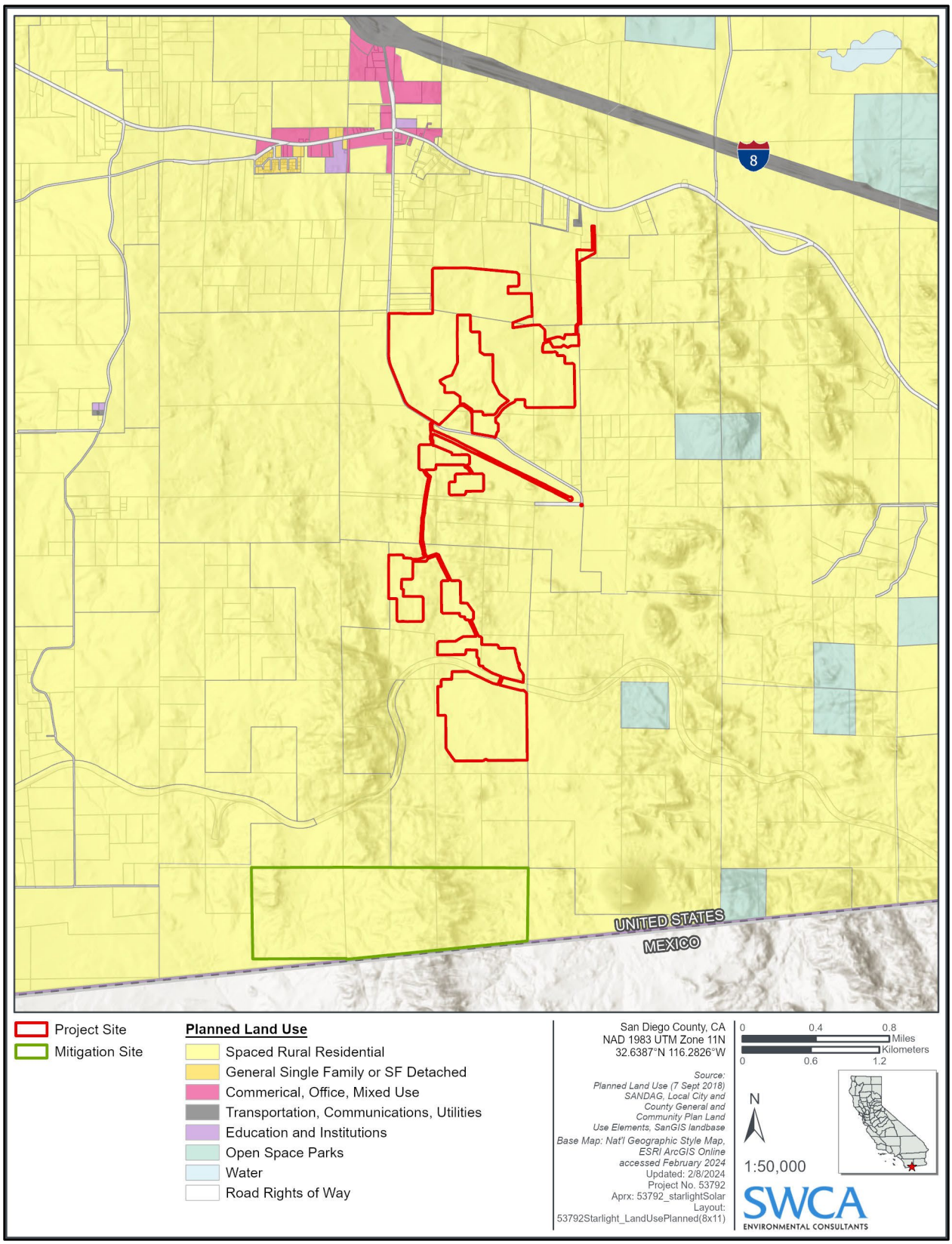


Figure 9. Planned Land Use Map.

1.5.9 Habitat Types/Vegetation Communities

Fourteen natural communities and land cover types were identified within the survey area, listed in order of largest coverage 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, nonnative grassland, southern riparian scrub, freshwater, coast live oak woodland, tamarisk scrub, freshwater seep, and alkali marsh (Table 3). In addition to the natural communities, three additional cover types within the category of disturbed or developed areas were also mapped, including "urban/developed," "bare ground," and "disturbed." Photographs of the site are provided in Appendix A.

Table 3. 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 Phase 1 Project Site	Acres within Phase 2 Project Site *	Total Acres within Project Site
Granitic Northern Mixed Chaparral (37131)	339.05	99.58	136.91 (49.68)	236.49
Redshank Chaparral (37300)	238.27	24.53	121.67 (2.71)	146.2
Granitic Chamise Chaparral (37210)	92.95	3.03	62.04 (7.41)	65.07
Montane Buckwheat Scrub (37K00)	60.11	1.97	52.92 (0.07)	54.89
Field/Pasture (18310)	44.63	0	28.10	28.1
Bare Ground	42.75	2.56	22.17 (0.47)	24.73
Big Sagebrush Scrub (35210)	27.80	0	15.38	15.38
Open Coast Live Oak Woodland (71161)	19.51	0.32	4.32	4.64
Disturbed (11300)	18.34	0	10.01	10.01
Urban/Developed (12000)	8.19	0	0.03	0.03
Non-Native Grassland (42200)	5.32	0	2.49	2.49
Southern Riparian Scrub (63300)	0.80	0	0	0
Freshwater (64140)	0.54	0	0	0
Freshwater Seep (45400)	0.29	0	0.038	0.038
Coast Live Oak Woodland (71160)	0.27	0	0	0
Alkali Marsh (52300)	0.12	0	0	0
Tamarisk Scrub (63810)	0.03	0	0	0
Total**	**898.97**	**131.99**	**456.08 (60.34)**	**588.066**

*Acreages in parentheses are impact-neutral areas associated with Phase 2 of the project but are not within the Phase 2 footprint

**Numbers may not sum due to rounding

Each distinct natural community and cover type is described below in descending order of relative abundance below. An overview of biological resources on-site is provided in Figure 10. Detailed sheets showing biological resources at a 1-inch:200-foot scale are provided in Appendix B.

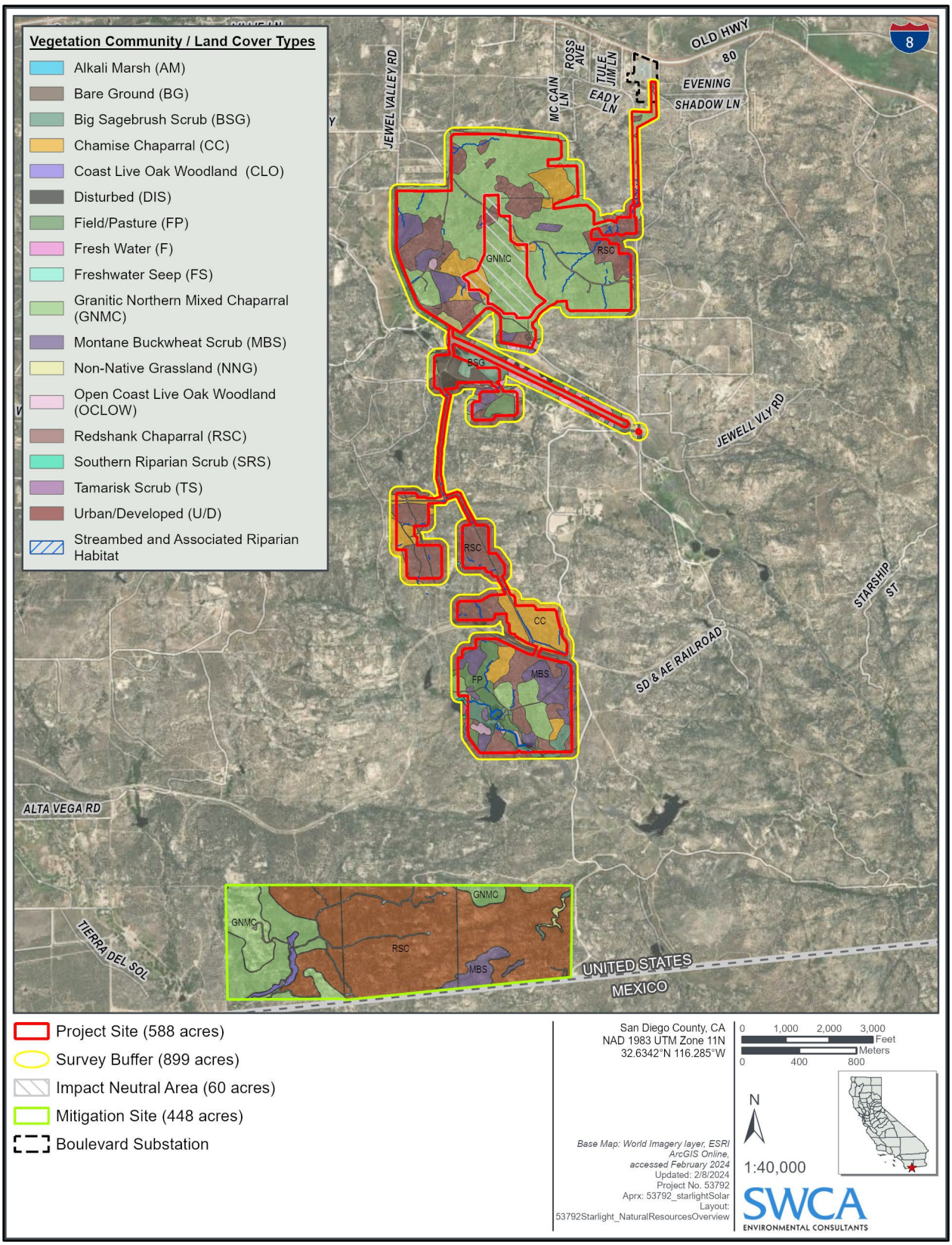


Figure 10. Natural Communities and Cover Types, Overview Map.

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 to S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents (CDFW 2023). The CNPS (2024b) classification conversion tool 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.

1.5.9.1 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 and Arizona Eastern Railway (SD&AE Railway).

The granitic northern mixed chaparral alliance is not officially ranked by CDFW (2023); however, granitic northern mixed chaparral is considered special-status based on mitigation recommendations of the County (County of San Diego 2010a).

1.5.9.2 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 (2023), 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).

1.5.9.3 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 (2023), 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).

1.5.9.4 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 (2023), 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).

1.5.9.5 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.

Field/pasture is not considered a natural community and is therefore not officially ranked by CDFW (2023), but this habitat does require mitigation per County guidelines (County of San Diego 2010a).

1.5.9.6 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 (2023), 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).

1.5.9.7 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 (2023) or the County (County of San Diego 2010a).

1.5.9.8 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 (2023) or the County (County of San Diego 2010a).

1.5.9.9 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 (2023) or the County (County of San Diego 2010a).

1.5.9.10 Open Coast Live Oak Woodland (71160)

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 Report Format and Content Requirements (County of San Diego 2010b).

The open coast live oak woodland alliance is not officially ranked by CDFW (2023). However, all coast live oak woodlands are considered special-status by the County (County of San Diego 2010a)

1.5.9.11 Non-native Grassland (42200)

Non-native grassland is 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 (2023). However, nonnative grasslands are recognized as a special-status community by the County (County of San Diego 2010a).

1.5.9.12 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 (2023) but is considered a type of riparian scrub requiring mitigation by the County (County of San Diego 2010a).

1.5.9.13 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 (2023), 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).

1.5.9.14 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 (2023). However, southern riparian scrub is recognized as a special-status community by the County (2010a).

1.5.9.15 Freshwater (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 (2023) or the County of San Diego (2010a).

1.5.9.16 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 Report Format and Content Requirements (County of San Diego 2010b).

The coast live oak woodland alliance has a rank of G5S4 in CDFW (2023), 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 (2010a).

1.5.9.17 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 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 (2023). However, this community is recognized as special-status by the County (2010a).

1.5.10 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 rare plant surveys. Common species

documented within each habitat are noted in Section 1.5.9. A cumulative list of plant species observed on-site is provided in Appendix C.

1.5.11 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 entirety of the project site meets this definition of raptor foraging habitat.

In total, 82 wildlife taxa (25 birds, six mammals, three reptiles, and 48 invertebrates), all of which are native, have been observed so far during surveys conducted by SWCA, and protocol QCB surveys conducted by RBC and SWCA. Additional species will be added as surveys continue. A cumulative list of all animal species observed on-site is provided in Appendix D.

1.5.12 Special-Status Plant Species

The potential for special-status plant species to occur on-site was evaluated as described in Section 1.5.2. A list of special-status plant species evaluated for potential to occur on-site is provided in Appendix E. 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 milk-vetch, 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 the determination of significance (see Section 3.1). Table 4 provides the special-status species plants observed to date in the survey area and the estimated number of individuals of each species.

Table 4. Names and Abundance of Each Rare Plant Population Observed in the Survey Area

Species Name **Common Name**	**Status**	**Estimated Number of Individuals Observed within Phase 1**	**Estimated Number of Individuals Observed within Phase 2**	**Total Estimated Number of Individuals Observed within the Survey Area**
Astragalus douglasii var. *perstrictus* Jacumba milk-vetch	CRPR 1B.2, County List A	149	1,052	1,351
Chorizanthe polygonoides Long-spined spineflower	CRPR 1B.2, County List A	0	50	595
Deinandra floribunda Tecate tarplant	CRPR 1B.2, County List A	0	328	1,171
Geraea viscida Sticky geraea	CRPR 2B.2, County List B	336	1,046	2,536
Linanthus bellus Desert beauty	CRPR 2B.1, County List B	769	74	2,105
Caulanthus simulans Payson's jewelflower	CRPR 4.2, County List D	0	0	6
Delphinium parishii var. *subglobosum* Colorado desert larkspur	CRPR 4.3, County List D	186	0	301
Diplacus aridus Low bush monkeyflower	CRPR 4.3, County List D	0	0	8
Lathyrus splendens Pride-of-California	CRPR 4.3, County List D	1	14	31

CRPR: California Rare Plant Rank

1B: Rare, threatened, or endangered in California and elsewhere.
2B: Rare, threatened, or endangered in California, but more common elsewhere.
3: Plants about which more information is needed
4: Plants of limited distribution.

Threat Rank

0.1: Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2: Moderately threatened in California (20%–80% occurrences threatened / moderate degree and immediacy of threat)
0.3: Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

San Diego County Special Status

County List A: Rare, threatened, or endangered in California and elsewhere.
County List B: Rare, threatened, or endangered in California but more common elsewhere.
County List C: May be rare, but more information is needed to determine their true rarity status.
County List D: Of limited distribution and are uncommon, but not presently rare or endangered.

1.5.12.1 County List A and B Species

Jacumba Milk-vetch (*Astragalus douglasii var. perstrictus*)

Jacumba milk-vetch 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. In total, 1,351 Jacumba milk-vetch individuals were observed within the survey area 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 in chaparral, coastal scrub, meadows, seeps, valley and foothill grasslands, and vernal pools up to approximately 5,200 feet amsl. In total, 595 individuals were observed within the survey area in 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 2B.2 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. In total, 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 2B.1 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. In total, 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.

1.5.12.2 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. 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. In total, 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. In total, 8 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.

1.5.12.3 Oak Tree Inventory

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 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 (Figure 11), mostly in the far south end and just north and south of Jewel Valley Road. Of those 200 oaks, including the oak root protection zone, 96 individuals fell completely outside of Phase 1 or Phase 2 of the project site, nine individuals had avoidance buffers that partially fell within Phase 1, 51 individuals had avoidance buffers partially within Phase 2, no individuals were within Phase 1, and 38 individuals were in Phase 2 (Table 5). The oaks observed on-site typically had large crowns and high potential to provide nesting habitat for migratory bird species.

Table 5. Number of Coast Live Oak Trees, including Oak Root Protection Zone, within Survey Area

	Within Project Site Only	Within Survey Area, Completely Outside of Project Site	Partially within Project Site and Survey Area	Open Space Easement Area	Total within Survey Area
Phase 1					
Number of oak trees	0	10	9	**0**	**19**
Phase 2					
Number of oak trees	38	86	51	**6**	**181**

Following the collection of individual oak tree points, plots were assigned around each stand, resulting in a total of 51 plots (Table 6). A detailed survey of the number of trees and their potential habitat value presented by the 51 stands present within the survey area was conducted. Coast live oak woodlands within the survey area were subdivided into 51 plots; the number of trees and average DBH in cm was represented for each plot (see Table 6 and Appendix F). Table 6 represents a summary of the individual plots per phase including the number of trees within each plot, the number of trees within the project site, the number of trees falling outside of the project site, and how many trees partially fall within the project site since avoidance buffers are included.

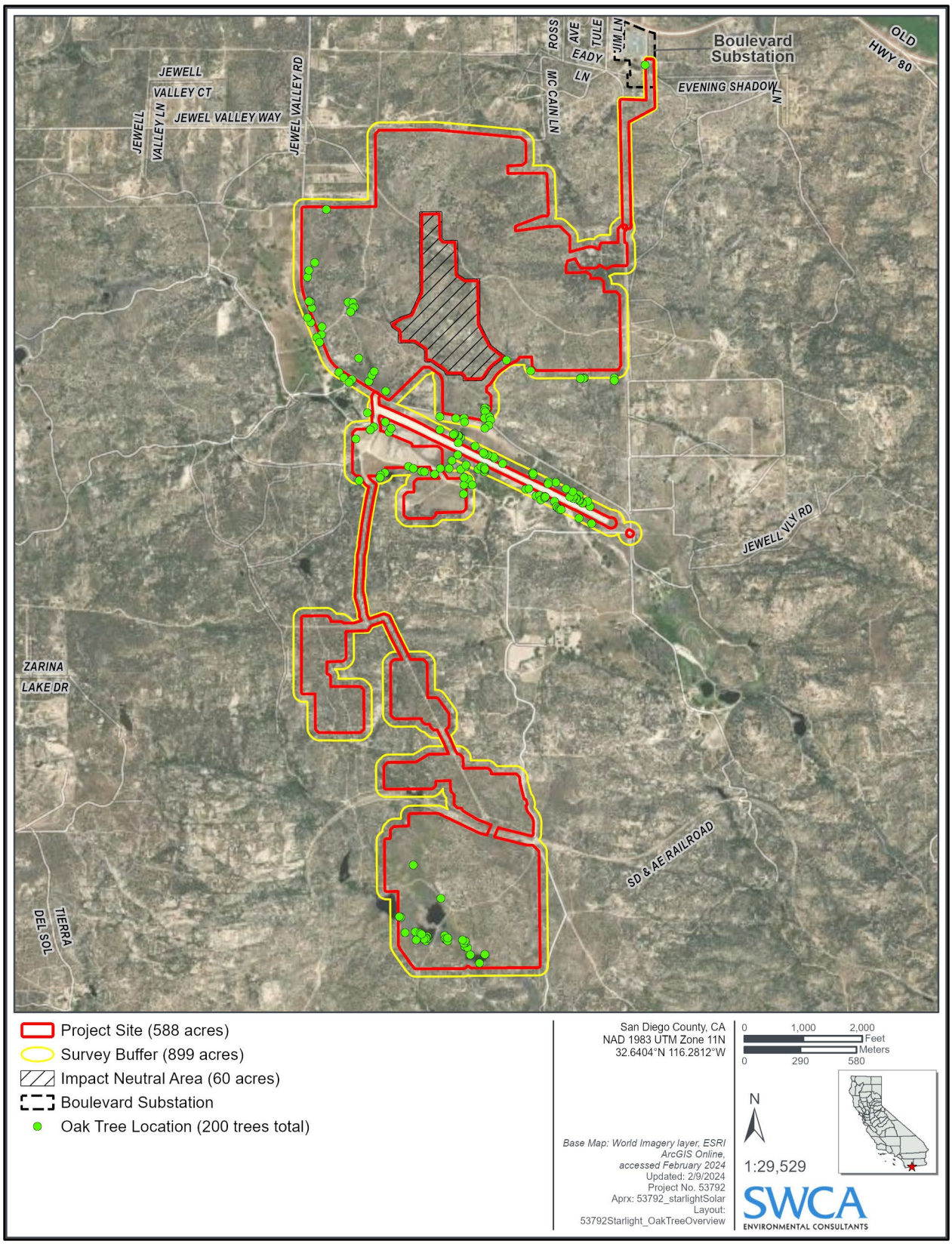


Figure 11. Coast Live Oak Tree Inventory, Overview Map.

Table 6. Number of Coast Live Oaks and Average DBH in Each Plot

Plot Number	Total Number of Trees in Plot	Project Site Only / Survey Area Only / Partially in Both	Average DBH (cm) Per Plot
Phase 1			
1	2	2, (~2)	50
9	1	1, (~1)	64
12	1	1*, (0)	43
13	3	3*, (0)	64
14	2	2*, (0)	58
19	10	4*, 6, (~6)	92
Total	**19**	**10*, 9, (~9,0)**	**N/A**
Phase 2			
2	1	1, (~1)	51
3	3	0, (3)	48
4	3	3, (~3)	79
5	5	0, (5)	56
6	2	2*, (0)	57
7	4	1*, 3, (0, [1])	57
8	1	1, ([1])	89
10	4	3*, 1, (~1)	65
11	3	0 (1, [2])	58
15	1	1, (~1)	56
16	1	1*, (0)	107
17	1	1*, (0)	89
18	3	1*, 2, (~2)	83
20	2	2, (~2)	61
21	3	3*, (0)	107
22	1	1*, ([2])	86
23	1	1, (~1)	89
24	11	10*, 1, (~1)	30
25	1	1*, (0)	64
26	5	2*, 3 (~3)	111
27	1	1, (~1)	99
28	5	2*, 3 (~3)	66
29	10	8*, 2, (~2)	52
30	6	4*, 2, (~2)	79
31	2	2*, (0)	69
32	3	3, (~3)	73
33	4	2*, 2 (~2)	53
34	3	3*, (0)	85

Plot Number	Total Number of Trees in Plot	Project Site Only / Survey Area Only / Partially in Both	Average DBH (cm) Per Plot
35	6	6*, (0)	77
36	4	1*, 3, (~3)	92
37	29	15*, 14, (~14)	41
38	8	6*, 2, (~2)	50
39	8	7*, 1, (~1)	58
40	2	2*, (0)	114
41	2	2*, (0)	102
42	1	1, (1)	89
43	1	0, (1)	61
44	2	2, (~2)	77
45	14	0, (14)	75
46	5	0, (5)	48
47	7	0, (7)	62
48	2	1, (1, ~1)	74
Total	**181**	**86*, 51, (~51,38, [6])**	**N/A**

Notes:

*Denotes coast live oaks, including the oak root protection zone, that are located within the survey area buffer but outside of the project site.

~ Denotes coast live oaks, including the oak root protection zone, that are partially located within the survey area and project site.

[ ] Denotes coast live oaks within open space easement that will be avoided.

1.5.13 Special-Status Animal Species

The potential for special-status animal species to occur on-site was evaluated as described in Section 1.5.2. A list of special-status animal species evaluated for potential to occur on-site is provided in Appendix G. 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 (*Federal Register* 67:40657, 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 November 2020c).
- 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 the determination of significance (see Section 3.1).

1.5.13.1 County of San Diego Group 1

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 because there is 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 and the 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, 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 2024a; eBird 2024). In addition, 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 the County, open coast live oak woodland would be suitable for nesting, and montane buckwheat scrub, field/pasture, disturbed, open coast live oak woodland, and non-native 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 year-long resident west of the Sierra Nevada Mountains, especially in coastal areas. It uses a variety of habitats while foraging on both wild and domestic carrion. It 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's vicinity (CDFW 2024a, eBird 2024) and on-site non-native 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. They tend 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. It is 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's vicinity (CDFW 2024a;

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, 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; 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. It frequently breeds in open ponderosa pine forests and burned forests with a high density of standing dead trees (snags). It also breeds in woodlands near streams, oak woodlands, orchards, and pinyon-juniper woodlands. During the nonbreeding season, it moves 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)*

The QCB is a federally endangered and County Group 1 species. Further, CDFW received a petition to list QCB as an endangered species under CESA on December 18, 2024. 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 California plantain (*Plantago erecta*); however, several other species have been documented as important larval host plants, including desert plantain, sometimes called woolly plantain (*P. ovata*); rigid bird's beak (*Cordylanthus rigidus*); Coulter's snapdragon (*Antirrhinum coulterianum*); owl's clover (*Castilleja exserta*); and Chinese houses (*Collinsia concolor*).

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 Appendix H-2, respectively.

County of San Diego Group 2; Other

1.5.13.2 Birds

California Horned Lark *(Eremophila alpestris actia)*

The California horned lark is a CDFW WL, County Group 2 species. It occurs in grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above the tree line. 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 the species 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, and chaparral. It 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 2024a; iNaturalist 2024).

Coastal Whiptail *(Aspidoscelis tigris stejnegeri)*

The coastal whiptail is a County Group 2 species. It is 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; it 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. It is 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. It is found in moist habitats, including woodlands, hardwood and conifer forest, grassland, sage scrub, chaparral, croplands/hedgerows, and gardens. In arid regions, it occurs 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, historical data from the USFWS and the USGS indicate the presence of a historic breeding pool in the southern portion of the project area, with additional observations recorded in close proximity to the project site.

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 CNDDB records in Jacumba and Campo, 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. It 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. Its primary habitat is oak, pinyon pine, and juniper woodlands, but it also

occurs in conifer forests, chaparral, desert, and dry tropical habitats if rocky outcroppings, canyons, boulder piles, or talus slopes are present. It is dependent on open water and usually does 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; in addition, 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 2024a).

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's vicinity (CDFW 2024a).

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.). 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.

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 and the site would not serve as overwintering habitat, there are suitable nectar plants to support foraging during migration.

1.5.14 Wetlands/Jurisdictional Waters

1.5.14.1 Resource Protection Ordinance Determination

The County of San Diego Resource Protection Ordinance (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 J). 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. 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.

1.5.14.2 USACE/CDFW/Regional Water Quality Control Board Preliminary Conclusions

Sixty-seven potentially jurisdictional drainage features, eight freshwater ponds (three of which are potentially jurisdictional), and one potentially jurisdictional freshwater seep were observed within the survey area (see Figures A7a–A7e and A8a–A8p in Appendix J). Of these potentially jurisdictional resources, 15 drainages, five 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 waters of the State (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 discernable 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, Waters of the US (WOUS) and adjacent Wetland Waters of the US (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 Study Area may be isolated by impoundments or other anthropogenic structures downslope, hydrologic continuity was not examined at the necessary fine scale beyond the Study Area. All wetlands were determined as being isolated within the Study 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.

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 (Appendix J Figures A8a–A8p, Table 3). An 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.

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 like 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.

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. Table 7 summarizes the aquatic resources present on-site and impacts to these features.

Table 7. 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

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)
WOUS	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

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 2022 National Wetland Plant List (USACE 2022).

Of the six examined wetland determination sampling plots, one was unvegetated (SP04), three were dominated by upland nonnative mustards (SP01–SP03), one was dominated by upland herbaceous vegetation (SP05), and one consisted of codominant upland and hydrophytic species (SP06). SP01 through SP05 were examined within the field/pastureland cover type (see Figure A4e, Appendix J), and SP06 was examined within the granitic northern mixed chaparral vegetation community. SP01 and SP02 were dominated by nonnative annual grasses and mustards. Cover at both locations was approximately 15%. Although diagnostic parts were not present, the more prevalent mustard (*Hirschfeldia* sp. and *Brassica* sp.) and annual grasses (*Bromus* sp.) do not have a hydric indicator status and are typically assumed to have an upland status; however, in the context of disturbance and monocultures, these species may be considered problematic and discounted from the wetland determination assessment. No species within the tree, sapling/shrub, or woody vine strata were present at SP01 or SP02. SP03 consisted of approximately 15% cover of nonnative annual grasses and mustards, plus approximately 3% cover of big sagebrush (*Artemisia tridentata*) (No Indicator; assumed upland). SP05 was largely dominated (approximately 50% absolute cover) by redstem filaree (*Erodium cicutarium*) (No Indicator; assumed upland). Unknown germinates comprised an additional 10% cover. No plants within the tree, sapling/shrub, or woody vine strata were present. SP06 did not support any plants in the tree strata. Shrubs consisted of approximately 5% absolute cover of arroyo willow (*Salix lasiolepis*) (facultative wetland [FACW]). The herbaceous strata consisted of approximately 13% absolute cover. Species present in the herbaceous strata included Erigeron canadensis (No Indicator; assumed upland), snouted monkey flower (*Mimetanthe pilosa*) (FACW), seaside heliotrope (*Heliotropium curassavicum*) (facultative upland [FACU]), and annual grasses. Observed hydrophytic vegetation was associated with SP06 and a freshwater pond (FP02), located within the survey area but outside of the project site in the southwestern portion of the project. The dominant species around FP02 was *Baccharis salicifolia* (facultative [FAC]). Other hydrophytic species were also observed at a freshwater seep located within the survey area but outside the project site. Hydrophytic species at this location included *Typha* sp. (obligate [OBL]), *Anemopsis californica* (OBL), and *Carex* cf. *spissa* (FAC). *Tamarix* cf. *chinensis* (FAC) was observed at the southeastern edge of the survey area. The most common species throughout the

survey area, red shank (*Adenostoma sparsifolium*), chamise (*Adenostoma fasciculatum*), and buckwheat (*Eriogonum fasciculatum*), lack hydric indicators and are assumed to have an upland status.

1.5.15 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 of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources (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.

1.6 Applicable Regulations

The following discussion 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.

1.6.1 Federal Regulations

1.6.1.1 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 (NEPA) 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.

1.6.1.2 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.

1.6.1.3 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.

1.6.1.4 Federal Water Pollution Control Act (Clean Water Act)

The Federal Water Pollution Control Act was first passed by Congress in 1948. The Act 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 Water Board for activities requiring a federal permit or license which may result in discharge of pollutants into WOTUS.

1.6.2 State Regulations

1.6.2.1 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 Watch List species).

1.6.2.2 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.

1.6.2.3 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 except when subject to an approved Section 2835 permit in a Natural Communities Conservation Plan.

1.6.2.4 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 Water Boards to oversee water quality on a day-to-day basis at the regional/local level.

1.6.2.5 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.

1.6.2.6 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.

1.6.2.7 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.

1.6.2.8 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 (FGC) 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.

1.6.2.9 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.

1.6.3 Local Regulations

1.6.3.1 San Diego County General Plan – Open Space Element (Part I), Conservation Element (Part X), and Community and Subregional Plans

The Open Space Element and the Conservation Element of the General Plan provide guiding principles for the conservation of biological resources. The Open Space Element outlines the goals and policies pertaining to each type of open space, not all of which are for the preservation of biological resources. The Conservation Element, specifically Chapters 3 and 4, address County policies relating to water, vegetation, and wildlife habitat. Appendix K of the Conservation Element outlines the County's Resource Conservation Areas (RCAs), which are further 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).

1.6.3.2 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).

1.6.3.3 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 nonnative 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.”

1.6.3.4 East County Multiple Species Conservation Plan

The ECMSCP is still in process (County of San Diego 2021b). 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 parts of 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.

1.6.3.5 County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements

The guidelines for determining significance are used by County staff for the review of discretionary projects and environmental documents pursuant to CEQA. The guidelines include qualitative, quantitative, and performance levels for particular environmental effects and assist in providing a consistent, objective, and predictable evaluation of significant effects. The report format and content requirements provide guidance on conducting surveys and preparing reports for discretionary projects. The guidelines are designed to ensure the quality, accuracy, and completeness of surveys and reports, aid in the review of maps and documents from different consultants, provide adequate information to make planning decisions and determinations regarding conformance with applicable regulations, and increase the efficiency of the environmental review process and avoid unnecessary delays.

2.0 PROJECT EFFECTS

2.1 Definition of Impacts

The Guidelines for Determining Significance (County of San Diego 2010a) provide the following definitions for direct, indirect, and cumulative impacts, as well as permanent (long-term) and temporary (short-term) impacts.

2.1.1 Direct Impacts

Direct impacts are those that are generally obvious, absolute, or quantifiable. The removal of habitat by grading or clearing is the most common direct impact. Other examples of direct impacts would include the construction of a substantial barrier in a wildlife corridor (the direct impact being to wildlife movement) or the loss of habitat occupied by a certain species (the direct impact being to that particular species). Direct impacts may occur through the project itself or actions necessary to implement the project (e.g., fire fuel modification and/or clearing, construction staging areas).

2.1.2 Indirect Impacts

Indirect impacts may be the result of secondary effects from direct impacts or those impacts that over time cause the degradation of a resource by changing its function, health, or quality. Unlike direct impacts that are typically one-time effects, indirect impacts often continue in the long term and may actually increase.

Indirect impacts commonly result from a project's "edge effects." Edge effects from most development that has human occupancy may extend several hundred feet into adjacent open space areas, causing significant changes in species composition, diversity, and abundance in those nearby lands. Projects can have a wide variety of indirect impacts depending on the nature of the project, the type of resources present, and the type and degree of edge effects.

Projects can also cause a decline in the availability of a resource, such as water or prey, or change the habitat viability by altering the moisture regime or vegetation present, thereby adversely

affecting a biological resource. Projects may cause habitat fragmentation, loss of ecosystem and watershed integrity, and may affect ecosystems and natural systems through changes in the pattern of land use, and population density or growth rate. Indirect impacts have been addressed in multiple species recovery plans, reports, journal articles and conferences. These Guidelines were created based on the best available science and most common standards followed by the wildlife agencies, conservationists, and biologists. On a case-by-case basis, such as unoccupied solar projects, other measurable standards may apply.

2.1.3 Cumulative Impacts

Cumulative impacts are those caused by the additive effect of multiple direct and indirect impacts to a biological resource over time. A project's direct and indirect impacts may not be individually significant, but the additive effect when viewed in connection with the impacts of past, present, and probable future projects may cause the significant loss or degradation of a resource. In addition, multiple different impacts to a resource may be cumulative. For instance, a creek may be impacted directly and indirectly from road crossings, buffer encroachment, and edge effects, all of which cumulatively cause the overall degradation of the creek.

A project may have significant cumulative effects notwithstanding the project's conformance with a regulatory program or existing mitigation plan such as a Habitat Conservation Plan (HCP) or NCCP. For example, species may become listed that were not addressed in the adopted plan, or insufficient information was available at the time of plan adoption.

CEQA requires an appropriate cumulative study area (geographic scope) when determining which projects to include in a cumulative analysis. If the appropriate study area is entirely within the MSCP, a project may rely on the MSCP to determine that the project's impacts are not cumulatively considerable. If, however, a project is located on the periphery of the MSCP, or the project lies both within and outside the MSCP, the cumulative study area must extend beyond the boundaries of the MSCP as necessary to address the appropriate resource(s).

2.1.4 Permanent and Temporary Impacts

Direct, indirect, and cumulative impacts can be described in more detail relative to whether they are permanent or temporary. Permanent impacts to biological resources would result from a permanent direct loss of those resources as an area is converted to another condition (e.g., developed, ornamental landscaping, agriculture, etc.), or an indirect impact (e.g., edge effects) that will persist and is permanent.

Direct impacts may be considered temporary when an area can be restored to its pre-impact condition thus providing habitat and wildlife functions and values effectively equal to the functions and values that existed before the area was impacted.

2.1.5 Impact Neutral

Areas that are not being directly impacted by the project, but that cannot be counted toward mitigation (e.g., isolated patches of habitat), are considered impact neutral if preserved within an

open space easement. RPO wetland buffers and all areas that fall outside of the impact neutral areas beyond the limits of grading, fuel modification, and access roads will not be impacted.

2.2 Vegetation Communities/Land Covers

2.2.1 Direct Impacts to Vegetation Communities

2.2.1.1 Temporary Direct Impacts

Temporary or short-term direct impacts to vegetation communities would primarily result from construction activities. Clearing or crushing vegetation beyond construction limits could occur without avoidance and mitigation measures. This could damage native vegetation communities to the extent that gaps are created in the habitat, which could result in nonnative plant species becoming established. The increased presence of nonnative species would result in increased competition for resources and may result in additional effects such as increased erosion if native species on slopes are displaced by nonnative species with different root structures.

2.2.1.2 Permanent Direct Impacts

Permanent or long-term direct impacts to vegetation communities would occur due to project grading. Permanent direct impacts to vegetation communities are quantified in Table 8, and shown on Figure 12 and in Appendix K.

Table 8. Habitat/Vegetation Communities and Impacts

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Off-site Impacts (acres)	Impact Neutral (acres)	Total Impacts (acres)
Phase 1 (including the 7-acre gen-tie easement)					
Granitic Northern Mixed Chaparral (37131)	99.58	92.54	0	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, [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

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Off-site Impacts (acres)	Impact Neutral (acres)	Total Impacts (acres)
Alkali Marsh (52300)	0	0	0	0	0
Total - Phase 1	**131.99**	**124.91**	**0**	**0, [7.08]**	**124.91**
Phase 2					
Granitic Northern Mixed Chaparral (37131)	136.91	126.33	0	49.68, [10.58]	126.33
Redshank Chaparral (37300)	121.67	119.35	0	2.71, [2.32]	119.35
Granitic Chamise Chaparral (37210)	62.04	61.56	0	7.41, [0.48]	61.56
Montane Buckwheat Scrub (37K00)	52.92	51.14	0	0.07, [1.78]	51.14
Field/Pasture (18310)	28.10	27.98	0	0, [0.13]	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, [0.64]	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, [1.44]	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
Total - Phase 2	**456.08**	**438.68**	**0**	**60.34, [17.36]**	**438.68**

Note:

[ ] Denotes habitat/vegetation communities within open space easement areas that will be avoided.

2.2.2 Indirect Impacts to Vegetation Communities

2.2.2.1 Temporary Indirect Impacts

Temporary or short-term indirect impacts to vegetation communities could result from hydrologic changes, accumulation of fugitive dust, and the introduction of chemical pollutants during project construction.

Altered Hydrology. Construction may result in impacts to hydrology and water quality downstream of the project. These could take the form of changes in rates of flow, the position of aquatic resources relative to the landscape, or groundwater drawdown. Such hydrologic changes could impact downstream aquatic, wetland, and riparian vegetation communities. Potential impacts to water quality include increased turbidity and sedimentation, erosion, and the introduction of pollutants associated with construction such as petroleum byproducts. Changing permeable to impermeable surfaces (e.g., soil to pavement) can also increase runoff, resulting in increased erosion from surface flows, which may also support the establishment of nonnative species.

Generation of Fugitive Dust. Accumulation of dust on plant leaves can decrease the amount of solar energy available for photosynthesis and may inhibit gas exchange through the leaf. This may result in poor growth and increased susceptibility to disease and pests.

Chemical Pollutants. Chemical pollution, such as that from petroleum byproducts, may be toxic to both plant and animal species within vegetation communities. This toxicity could result in reduced vigor or the outright death of the organism depending on the level of exposure. No herbicides will be used during construction—all vegetation removal will be mechanical only.

2.2.2.2 Permanent Indirect Impacts

Permanent or long-term indirect impacts may result after project construction that could affect native habitats. These impacts include habitat fragmentation, hydrologic changes, accumulation of fugitive dust, chemical pollutants, introduction of nonnative species, altered fire regime, shading, and increased human activity. Each of these potential indirect impacts is discussed below.

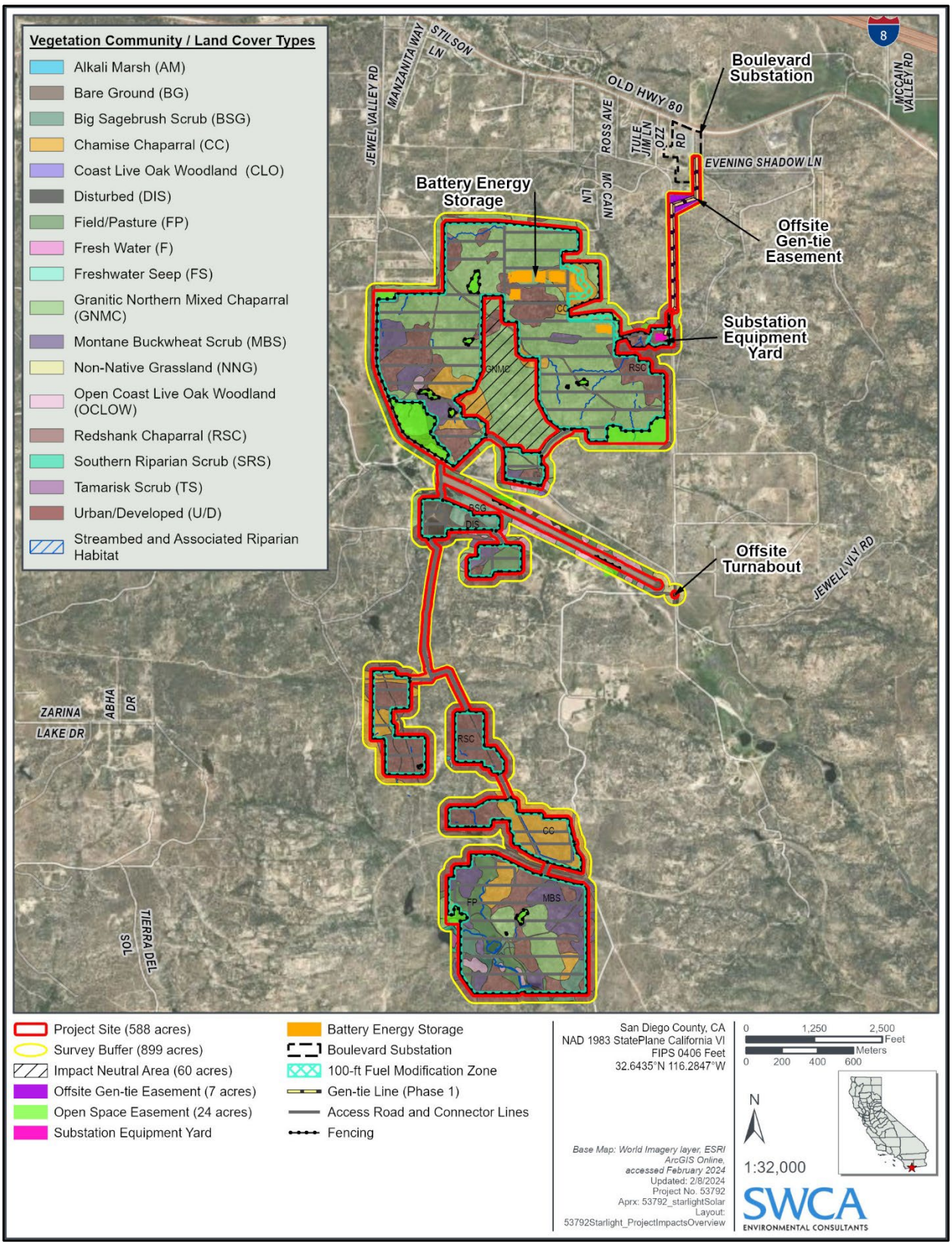


Figure 12. Project Impacts, Overview Map.

Habitat Fragmentation. Beyond the direct loss of habitat resulting from the project, there would be an increase in habitat fragmentation. Habitat fragmentation reduces habitat quality and may make it unsuitable for some species that are sensitive to anthropogenic disturbance or require large blocks of habitat. Habitat fragmentation can be detrimental to both animal and plant species as more of the habitat becomes subject to edge effects ranging from introduction of nonnative species to noise and light impacts.

Altered Hydrology. Water would be used during maintenance activities, such as washing solar panels. Altered hydrology could promote the establishment of nonnative ruderal plant species as well as invasive animal species such as Argentine ants (*Linepithema humile*), which can outcompete native species. However, washing of solar panels would only occur two to three times per year and would total approximately 1.22 acre-feet per year.

Generation of Fugitive Dust. Potential impacts from fugitive dust accumulation are discussed above in Section 2.2.2.1.

Chemical Pollutants. Potential impacts resulting from chemical pollutants are discussed above in Section 2.2.2.1.

Nonnative Species. Invasive nonnative plant species compete with native plant species for resources such as water, nutrients, and light and can alter habitat to an extent that it becomes unsuitable for native species (e.g., nonnative grasses may result in a thick layer of thatch that could inhibit native annual species growth). Nonnative wildlife species may impact native species populations via predation or competition for food, or they may alter the ecosystem in a way that native species are ineffective at adapting to (e.g., increased disturbance resulting from foraging).

Altered Fire Regime. The project could result in an increased risk of fire, as there could be electrical malfunctions that could cause sparks to encounter dry vegetation. Many native species in California are adapted to periodic burns but increases in frequency can be problematic and may result in long-term ecological transitions such as the conversion of shrubland to grassland. Likewise, wildfire suppression can result in much higher-than-normal fuel loads which may result in larger or hotter fires.

Shading. The project includes construction of trackers mounted on steel masts that would shade the ground beneath them. Shading reduces photosynthetic activity and native plant species may be unable to adapt to significantly reduced light availability, which could result in shifts in community structure toward shade-tolerant native or nonnative species. However, shading will be confined to the project site and permanent shading impacts on adjacent habitat are not expected.

Increased Human Activity. While the project is remotely operated, those occasions where in person maintenance of the project is required after construction may result in increased human activity in the project array areas.

2.3 Special-Status Plant Species

2.3.1 Direct Impacts to Special-Status Plant Species

2.3.1.1 Temporary Direct Impacts

Temporary or short-term direct impacts to special-status plants would be largely associated with construction of the project. Clearing or trampling of vegetation beyond the designated limits of work could occur without appropriate avoidance and mitigation measures. These actions could result in damage to individual plants or cause gaps in vegetation that may be invaded by nonnative species. All special-status plant species on-site could be affected by these potential temporary direct impacts.

2.3.1.2 Permanent Direct Impacts

Permanent or long-term direct impacts to special-status plants would occur from the permanent loss of vegetation communities and individuals resulting from project implementation. Permanent direct impacts to vegetation communities are described in Section 2.2.1.2 and the locations of special-status plants are shown in Appendix B.

The project would `have permanent direct impacts on seven special-status plant species. The remaining individuals that will be unaffected by project implementation are found in open space easements, the outer survey buffer, and impact-neutral areas, all of which will not be impacted by the project. The project would have permanent direct impacts on the following special-status plant species:

- Jacumba milk-vetch (CRPR 1B.2, County List A) – 149 individuals (Phase 1, 11%) and 1,052 individuals (Phase 2, 86%) of 1,351 observed within the survey area
- Long-spined spineflower (CRPR 1B.2, County List A) – Zero individuals (Phase 1, 0%) and 50 individuals (Phase 2, 8%) of 595 observed within the survey area
- Tecate tarplant (CRPR 1B.2, County List A) – Zero individuals (Phase 1, 0%) and 328 individuals (Phase 2, 28%) of 1,171 observed within the survey area
- Sticky geraea (CRPR 2B.2, County List B) – 336 individuals (Phase 1, 13%) and 1,046 individuals (Phase 2, 41%) of 2,536 observed within the survey area
- Desert beauty (CRPR 2B.1, County List B) – 769 individuals (Phase 1, 37%) and 74 individuals (Phase 2, 4%) of 2,105 observed within the survey area
- Colorado Desert larkspur (CRPR 4.3, County List D) –186 individuals (Phase 1, 61%) and no individuals (Phase 2, 0%) of 301 observed within the survey area
- Pride-of-California (CRPR 4.3, County List D) – 1 individual (Phase 1, 3%) and 14 (Phase 2, 45%) of 31 observed within the survey area

2.3.2 Indirect Impacts to Special-Status Plant Species

2.3.2.1 Temporary Indirect Impacts

Temporary or short-term indirect impacts to vegetation communities could result from changes in hydrology, generation of fugitive dust, and the introduction of chemical pollutants during project construction. These potential effects are discussed in Section 2.2.2.1 and equally apply to special-status plant species.

2.3.2.2 Permanent Indirect Impacts

Permanent or long-term indirect impacts may result after project construction that could affect special-status plant species. These impacts include habitat fragmentation, changes in hydrology, generation of fugitive dust, chemical pollutants, introduction of nonnative species, altered fire regime, shading, and increased human activity. Each of these potential indirect impacts is discussed in Section 2.2.2.2 and equally apply to special-status plant species.

2.4 Special-Status Animal Species

2.4.1 Direct Impacts to Special-Status Animal Species

2.4.1.1 Temporary Direct Impacts

Temporary or short-term direct impacts to special-status animals would primarily occur during construction of the project. Clearing or trampling of vegetation beyond the designated limits of work could occur without appropriate avoidance and mitigation measures. These actions could result in loss of habitat for wildlife species or cause gaps in vegetation that may be invaded by nonnative species, further degrading the habitat they occupy.

2.4.1.2 Permanent Direct Impacts

Permanent or long-term direct impacts to special-status animal species were quantified by comparing the impact site with suitable habitat for those species. The significance determination for these potential impacts is described in Section 3.1.

Raptors

The entire 588-acre project site would be suitable for raptor foraging. The loss of these habitats may have a significant impact on raptor species that use the project site for foraging. The installation of overhead lines across Tule Jim Lane could also impact raptors if they were to contact two separate energized lines, as their bodies could complete the circuit, which would result in their electrocution.

2.4.1.3 County of San Diego Group 1

Birds

Construction-related impacts could result in the loss of active nests and/or young of avian species during vegetation-clearing activities without appropriate avoidance and mitigation measures. Species-specific impacts are described below.

Cooper's Hawk *(Accipiter cooperi)*

Three Cooper's hawks were detected on-site in granitic northern mixed chaparral and redshank chaparral. There would be direct impacts to 24.9 acres (Phase 1) and 123.7 acres (Phase 2) of suitable nesting habitat consisting of redshank chaparral and coast live oak woodland and 124.9 acres (Phase 1) and 438.7 acres (Phase 2) of suitable foraging habitat (the entirety of each phase) as a result of project implementation.

Sharp-Shinned Hawk *(Accipiter striatus)*

One sharp-shinned hawk was detected on-site in redshank chaparral. There would be direct impacts to 124.9 acres (Phase 1) and 438.7 acres (Phase 2) of suitable foraging habitat (the entirety of each phase) as a result of project implementation.

Southern California Rufous-Crowned Sparrow *(Aimophila ruficeps canescens)*

Southern California rufous-crowned sparrow was not observed on-site but has high potential to use the project site for both nesting and foraging. There would be direct impacts to 122.1 acres (Phase 1) and 373.8 acres (Phase 2) of suitable nesting and foraging habitat consisting of granitic northern mixed chaparral, redshank chaparral, granitic chamise chaparral, montane buckwheat scrub, and big sagebrush scrub as a result of project implementation.

Bell's Sage Sparrow *(Amphispiza belli belli)*

Two Bell's sage sparrows were detected on-site in granitic northern mixed chaparral. There would be direct impacts to 122.1 acres (Phase 1) and 373.8 acres (Phase 2) of suitable nesting and foraging habitat consisting of granitic northern mixed chaparral, redshank chaparral, granitic chamise chaparral, montane buckwheat scrub, and big sagebrush scrub as a result of project implementation.

Golden Eagle *(Aquila chrysaetos)*

Golden eagle was not observed on-site but has high potential to use the project site for foraging and potentially for nesting. There would be direct impacts to 0.3 acre (Phase 1) and 4.3 (Phase 2) of marginally suitable nesting habitat consisting of open coast live oak woodland and 97.9 acres (Phase 1) and 297.8 acres (Phase 2) of suitable foraging habitat 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 as a result of project implementation.

Long-Eared Owl *(Asio otus)*

Long-eared owl was not observed on-site but has high potential to use the project site for both nesting and foraging. There would be direct impacts to 0.3 acre (Phase 1) and 4.3 acres (Phase 2) of suitable nesting habitat consisting of open coast live oak woodland and 2.3 acres (Phase 1) and 94.5 acres (Phase 2) of open foraging habitat consisting of montane buckwheat scrub, field/pasture, disturbed, open coast live oak woodland, and non-native grassland as a result of project implementation.

Red-Shouldered Hawk *(Buteo lineatus)*

Red-shouldered hawk was not observed on-site but has high potential to use the project site for both nesting and foraging. There would be direct impacts to 0.3 acre (Phase 1) and 4.3 acres (Phase 2) of suitable nesting habitat consisting of open coast live oak woodland and 2.3 acres (Phase 1) and 94.5 acres (Phase 2) of open foraging habitat consisting of montane buckwheat scrub, field/pasture, disturbed, open coast live oak woodland, and non-native grassland as a result of project implementation.

Turkey Vulture *(Cathartes aura)*

Turkey vulture was observed on-site. There would be direct impacts to approximately 1.2 acres (Phase 1) and 3.1 acres (Phase 2) of suitable nesting habitat consisting of rock outcrops within granitic northern mixed chaparral and 124.9 acres (Phase 1) and 438.7 acres (Phase 2) of suitable foraging habitat (the entirety of each phase) as a result of project implementation.

Northern Harrier *(Circus cyaneus)*

Northern harrier was not observed on-site but has high potential to use the project site for both nesting and foraging. There would be direct impacts to 0.0 acres (Phase 1) and 29 acres (Phase 2) of suitable nesting and foraging habitat consisting of field/pasture and non-native grassland as a result of project implementation.

White-Tailed Kite *(Elanus leucurus)*

White-tailed kite was not observed on-site but has high potential to use the project site for both nesting and foraging. There would be direct impacts to 0.3 acre (Phase 1) and 4.3 acres (Phase 2) of suitable nesting habitat consisting of open coast live oak woodland and 0.0 acres (Phase 1) and 29 acres (Phase 2) of suitable foraging habitat consisting of field/pasture and non-native grassland as a result of project implementation.

Prairie Falcon *(Falco mexicanus)*

Prairie falcon was not observed on-site but has high potential to use the project site for both nesting and foraging. There would be direct impacts to approximately 1.2 acres (Phase 1) and 3.1 acres (Phase 2) of suitable nesting habitat consisting of rock outcrops within granitic northern mixed chaparral and 124.9 acres (Phase 1) and 438.7 acres (Phase 2) of suitable foraging habitat (the entirety of each phase) as a result of project implementation.

Loggerhead Shrike *(Lanius ludovicianus)*

Loggerhead shrike was not observed on-site but has high potential to use the project site for both nesting and foraging. There would be direct impacts to 124.9 acres (Phase 1) and 438.7 acres (Phase 2) of suitable foraging and nesting habitat (the entirety of each phase) as a result of project implementation.

Lewis' Woodpecker *(Melanerpes lewis)*

Lewis' woodpecker was not observed on-site but has high potential to use the project site for foraging. There would be direct impacts to 0.3 acre (Phase 1) and 33.3 acres (Phase 2) of suitable foraging habitat consisting of field/pasture, open coast live oak woodland, and non-native grassland as a result of project implementation.

Invertebrates

Quino Checkerspot Butterfly *(Euphydryas editha quino)*

As noted in Section 1.4.6.1 and detailed in the QCB protocol report (Appendix H-1 and H-2), QCB was determined to be absent on-site after protocol surveys were conducted were conducted in 2022 and 2024. Therefore, impacts to this species are not anticipated.

2.4.1.4 County of San Diego Group 2

Birds

California horned lark and western bluebird were both observed on-site. Mountain quail was not observed on-site but has high potential to occur on-site. There would be direct impacts to suitable habitat for these species. Construction-related impacts could result in the loss of active nests and/or young of avian species during vegetation-clearing activities without appropriate avoidance and mitigation measures.

Reptiles and Amphibians

Two Southern California legless lizards, six coastal whiptails, and nine coast horned lizards were observed on-site. Data from the USFWS and the USGS indicate that a historic breeding pool supporting western spadefoot has been recorded in the southern portion of the project area, with additional observations documented in proximity to the project. While not detected during field surveys conducted by SWCA, the species' historical presence suggest its potential occurrence within the project boundaries. California glossy snake, rosy boa, red-diamond rattlesnake, and San Diego ringneck snake were not observed on-site but have high potential to occur on-site. Reptiles and amphibians are low-mobility or sedentary, and direct impacts to these species could occur as a result of vegetation-clearing and grading activities.

Mammals

San Diego black-tailed jackrabbit, San Diego desert woodrat, mule deer, and mountain lion were observed on-site. Pallid bat, ringtail, Dulzura pocket mouse, northwestern and pallid San Diego

pocket mouse, greater western mastiff bat, western red bat, small-footed myotis, long-eared myotis, and southern grasshopper mouse were not observed on-site but have high potential to occur on-site. There are direct impacts to suitable habitat for these species. Direct loss of individuals could occur during construction-related activities. Construction-related impacts to mule deer are not anticipated because this species is highly mobile and can use a variety of habitats in the vicinity of the project.

Invertebrates

Monarch butterfly was not observed on-site but has high potential to occur on-site. There are direct impacts to suitable habitat for this species. Direct loss of individuals could occur during construction-related activities.

Crotch's bumblebee was not observed on-site and the project falls withing this species mapped range.

2.4.2 Indirect Impacts to Special-Status Animal Species

2.4.2.1 Temporary Indirect Impacts

Temporary or short-term indirect impacts to special-status animal species would primarily result from construction activities. Potential temporary indirect impacts could occur as a result of generation of fugitive dust, noise, chemical pollutants, increased human activity, and nonnative animal species during construction.

Generation of Fugitive Dust. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status animal species.

Noise. Construction-related noise could occur from equipment used during vegetation clearing and construction of the solar panels and associated infrastructure. Noise impacts can have a variety of deleterious indirect impacts on wildlife species, including increased stress, altered foraging behavior, increased energy expenditure and vulnerability to predation (e.g., because of fleeing from sudden noise), communication interference, and damaged hearing from extremely loud noises.

Chemical Pollutants. Accidental spills of hazardous chemicals could contaminate nearby surface waters and groundwater and indirectly impact wildlife species through poisoning or altering suitable habitat. Use of pesticides for rodent control could directly or indirectly affect wildlife species, such as raptors that prey on small mammals.

Increased Human Activity. Construction activities can deter wildlife from using habitat areas near the proposed project site and increase the potential for vehicle collisions.

Nonnative Species. Food waste from construction-related activities could attract invasive predators such as ravens and coyotes that could impact the wildlife species in the vicinity of the project.

2.4.2.2 Permanent Indirect Impacts

Potential long-term or permanent indirect impacts to special-status animal species include generation of fugitive dust; nonnative, invasive plant and animal species; habitat fragmentation; increased human activity; noise; alteration of the natural fire regime; altered hydrology; and creation of collision hazards.

Generation of Fugitive Dust. The effects of fugitive dust on special-status animal species are the same as those described in Section 2.4.2.1.

Nonnative Species. Invasive nonnative plant species compete with native plant species for resources such as water, nutrients, and light and can alter habitats to an extent that it becomes unsuitable for native species (e.g., nonnative grasses may result in a thick layer of thatch that could inhibit native annual species growth). Nonnative wildlife species may impact native species populations via predation or competition for food, or they may alter the ecosystem in a way that native species are ineffective at adapting to (e.g., increased disturbance resulting from foraging).

Habitat Fragmentation. Beyond the direct loss of habitat that this project will result in, there may be an increase in habitat fragmentation. Under some circumstances, particularly when there is human habitation, habitat fragmentation reduces habitat quality and may make it unsuitable for some species that are sensitive to anthropogenic disturbance or require large blocks of habitat. Without considering it in the project design, habitat fragmentation can be detrimental to both animal and plant species as more of the habitat could become subject to edge effects ranging from introduction of nonnative species to noise and light impacts.

Increased Human Activity. While the project is not occupied by humans, required maintenance of the project after construction may result in increased human activity in surrounding areas. Increased human activity can result in soil compaction or vegetation trampling that could reduce habitat function and suitability for special-status animal species. Increased human activity may also deter wildlife from using habitat near the project site.

Noise. Potential long-term noise impacts could occur as a result of project-generated noise from maintenance activities or the systems associated with the energy storage facilities. Noise impacts can have a variety of indirect impacts on wildlife species, as described in Section 2.4.2.1, above.

Altered Fire Regime. The project could result in an increased risk of fire, as there could be electrical malfunctions that could cause sparks to encounter dry vegetation. Many native species in California are adapted to periodic burns, but increases in frequency can be problematic and may result in long-term ecological transitions such as the conversion of shrubland to grassland. Likewise, wildfire suppression can result in much higher than normal fuel loads which may result in larger or hotter fires. Changes in plant communities may affect wildlife that relies on those habitat types.

Altered Hydrology. Water would be used for operational purposes for cleaning the solar modules and for reapplication of the nontoxic permeable soils stabilizers that may alter the on-site hydrologic regime. These hydrologic alterations may affect special-status animal species. Altered hydrology can allow for the establishment of nonnative plants and invasion by Argentine ants, which can compete with native ant species that are known to be seed dispersers and plant pollinators. Changes in plant composition could affect the native vegetation communities and wildlife habitat. Potential impacts would be reduced by the fact that panel washing would at most occur only two to three times per year, thus maintaining a xeric soil condition.

Creation of Collision Hazards. The gen-tie line would be located underground with the exception of a short overhead section (two poles) to cross an SDG&E easement under Tule Jim Lane from the on-site substation. The potential for avian collisions with the gen-tie line cables is a low risk compared to the long-distance transmission lines in the region such as the Sunrise Power link. However, the two utility poles would provide perches from which birds could forage, which could increase the risk of fatality associated with collisions and electrocutions.

2.5 Wetlands/Jurisdictional Waters

2.5.1 Direct Impacts to Jurisdictional Wetlands/Waters

2.5.1.1 Temporary Direct Impacts

Temporary or short-term impacts would include temporary vegetation removal and temporary work areas.

2.5.1.2 Permanent Direct Impacts

Permanent impacts such as those constituting a permanent loss of waters, may result from installation of substation and BESS support platforms, array support footings, concrete footings from the inverters and medium-voltage transformers, installation of access roads, and grading where natural flow patterns cannot be naturally restored following project completion. The proposed project may result in direct impacts to wetland and non-wetland waters on-site. Construction of the proposed solar site may result in direct impacts to 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) of CDFW jurisdictional resources.

An AJD of no jurisdiction would result in zero impacts to USACE-regulated resources, and it is anticipated that an AJD would result in a no Waters of the U.S. determination. 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 like 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.

The project will not result in direct impacts to RPO wetlands or their wetland protection buffers. One wetland protection buffer was observed within the project site but will be flagged for avoidance.

The significance of these potential impacts is determined through application of the County Significance Guidelines as described in Sections 4.0 and 5.0.

2.5.2 Indirect Impacts to Wetlands/Jurisdictional Waters

2.5.2.1 Temporary Indirect Impacts

Potential temporary or short-term indirect impacts to non-wetland waters on the project site would primarily result from construction activities and include impacts related to or resulting from the changes in hydrology resulting from construction, including sedimentation and erosion, and the introduction of chemical pollutants. Potential short-term indirect impacts that could affect all the waters that occur on the project site are described in Section 2.2.2.1.

All waters on-site could be impacted by potential temporary indirect impacts such as those previously listed. The significance of these potential impacts is determined through application of the County Significance Guidelines described in Sections 4.0 and 5.0.

2.5.2.2 Permanent Indirect Impacts

Permanent or long-term indirect impacts could result from the project's proximity to waters after construction, including impacts related to operation and maintenance. Operation and maintenance activities will occur within the impact site. Permanent indirect impacts that could affect non-wetland waters include chemical pollutants, altered hydrology, nonnative invasive species, increased human activity, alteration of the natural fire regime, and shading. These impacts are described in detail in Section 2.2.2.2.

All waters in the project site could be impacted by potential permanent indirect impacts such as those previously listed. The significance of these potential impacts is determined through application of the County Significance Guidelines described in Sections 4.0 and 5.0.

2.6 Habitat Connectivity and Wildlife Corridors

CDFW provides modeled spatial data layers in its BIOS6 application regarding linkages, corridors, and other connections pertaining to habitat connectivity and wildlife movement. There are several initiatives evaluating these topics, including the California Essential Habitat Connectivity (CEHC) project.

A review of these layers showed that the entire project site is mapped within an --east-west oriented CEHC Essential Connectivity Area (areas of land connecting at least two Natural Landscape Blocks) (Figure 13). The southern portion of the project site occurs within a CEHC Natural Landscape Block (areas of land ranging in size from 2,000 to 3.7 million acres), and parts of the northern portion of the project site are mapped as CEHC Natural Areas Small (smaller-scale landscape blocks that still have value for wildlife) (Figure 14). Additionally, the project site occurs in Areas of Conservation Emphasis, both designated 3–Connections with Implementation Flexibility (areas identified as having connectivity importance, but have not been identified as channelized areas, corridors, or linkages) and 4–Conservation Planning Linkages (habitat connectivity linkages mapped in the CEHC).

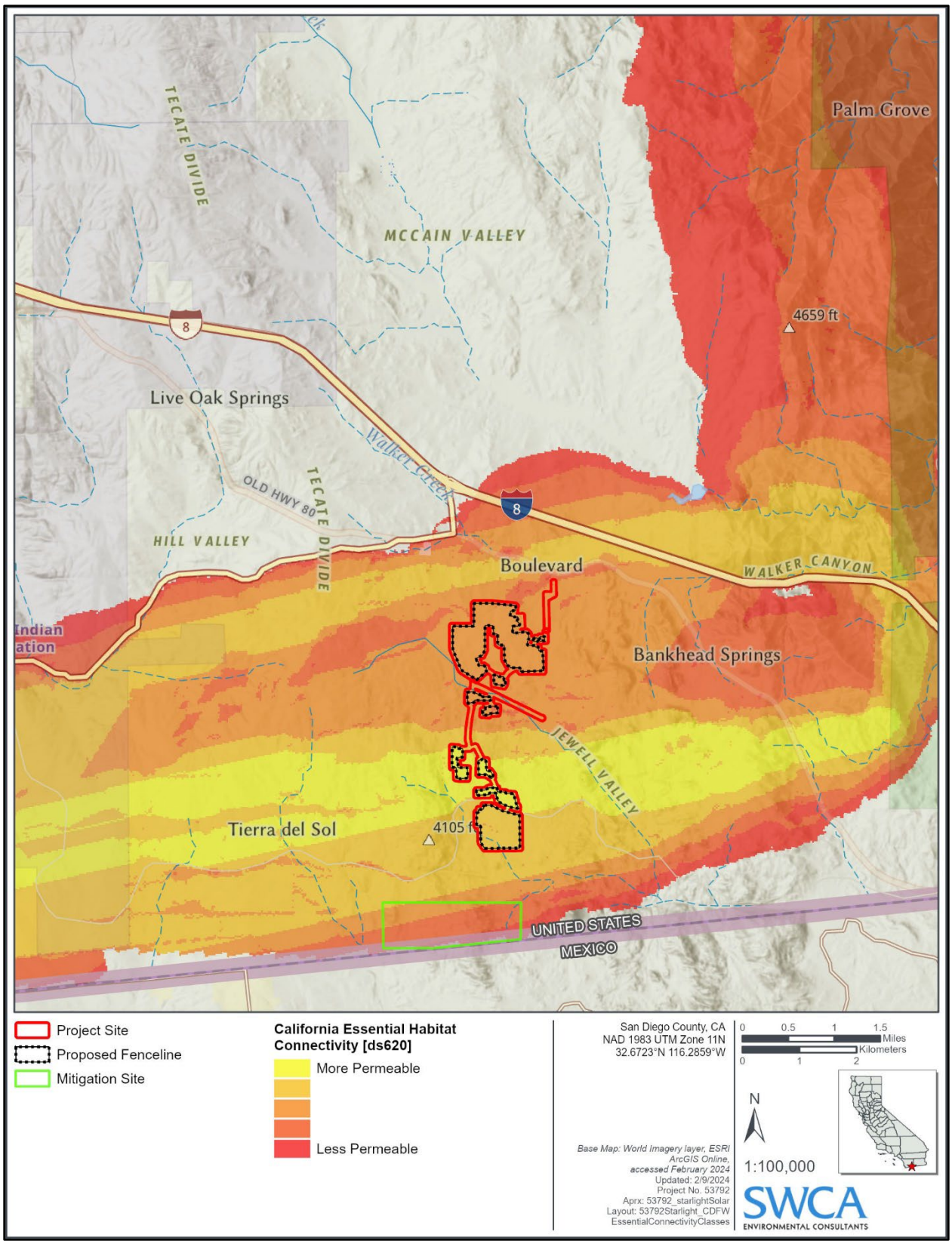


Figure 13. California Essential Habitat Connectivity Map.

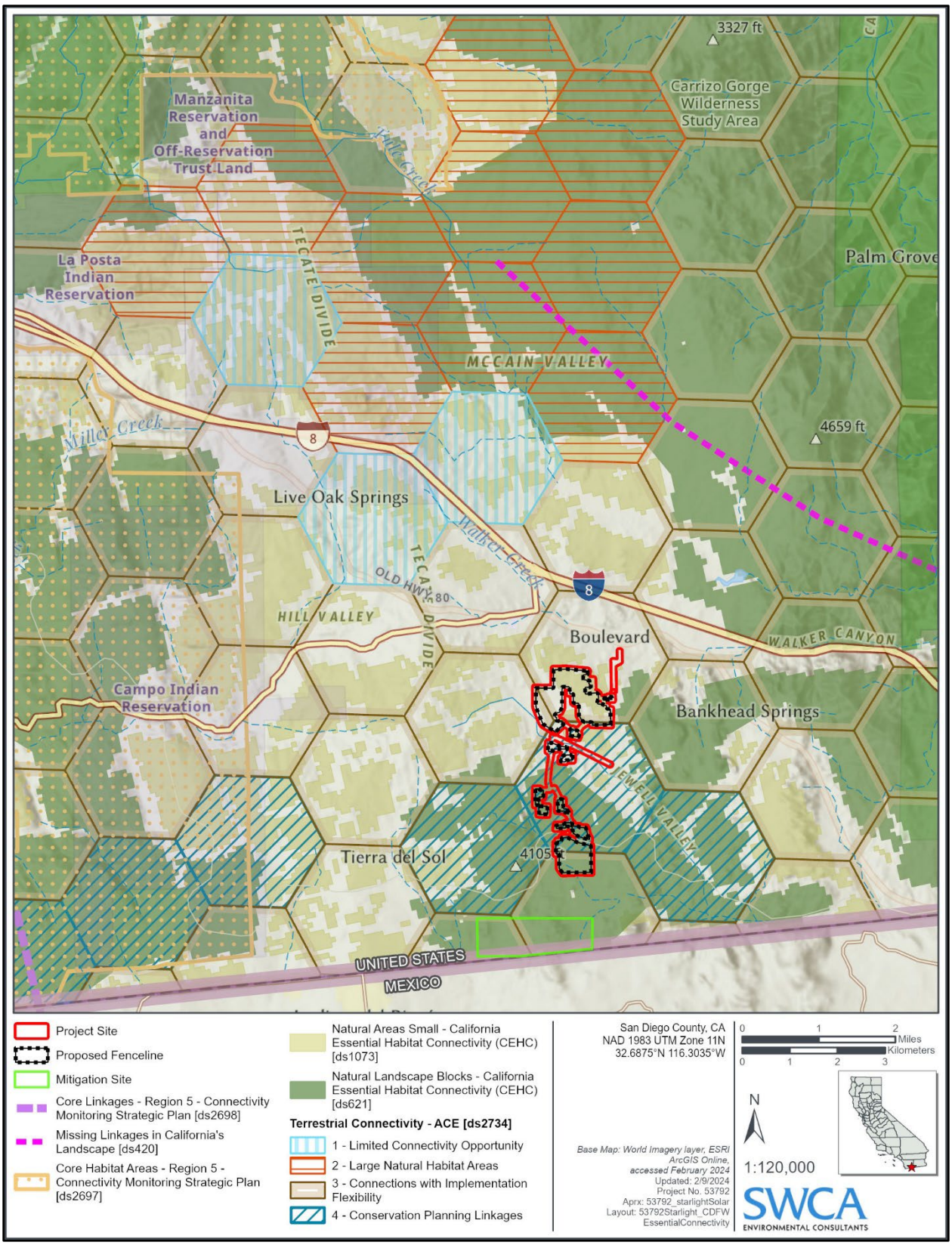


Figure 14. Habitat Connectivity Designations Map.

Phase 1 and the majority of Phase 2 occur within Connections with Implementation Flexibility, while the central portion of the project, to be developed in Phase 2, occurs within a Conservation Planning Linkage per the Areas of Conservation Emphasis modeling. Figure 14 shows the project's location in reference to these designations. Based on the County of San Diego (2023), portions of the project occur within ECMSCP Draft Focused Conservation Areas (FCAs) (see Figure 8).

While the wall along the U.S.–Mexico border precludes significant north-south terrestrial wildlife movement, wildlife movement may occur in an east-west orientation, as suggested by the project's location within a CEHC Essential Connectivity Area. This designation covers the entirety of the project site, plus approximately 1 mile to the north and south of the project site, and spans approximately 12 miles from east to west. The project site encompasses approximately 588 acres of the approximately 30,500-acre extension of the Essential Connectivity Area that overlaps the site, or 2% of the area.

Based on these models of connectivity, as well as local topography, wildlife movement may occur along the east-west oriented railway that bisects the southern portion of the project site as well as through the gaps between the solar arrays where development is not proposed given that the access roads connecting the arrays will not be fenced. Wildlife movement can also occur to the north and south of the project where development is not proposed. A network of interconnected wildlife corridors was modeled based on local topography in the vicinity of the project (Figure 15).

2.6.1 Direct Impacts to Habitat Connectivity and Wildlife Corridors

2.6.1.1 Temporary Direct Impacts

Temporary or short-term direct impacts to habitat connectivity and wildlife corridors would primarily result from construction activities and are the same as those described for vegetation communities/land covers in Section 2.2.1.1. These potential effects could impact wildlife movement through these areas by reducing cover and food sources. The significance of these potential impacts is determined through application of the County Significance Guidelines described in Section 6.

2.6.1.2 Permanent Direct Impacts

Implementation of the project is not expected to result in long-term or permanent direct impacts to habitat connectivity and wildlife corridors. See Sections 1.5.14 and 2.6 for a discussion regarding habitat connectivity and wildlife corridors. Although the project site is included within a Core Wildlife Area defined by the County based on its size and the surrounding undeveloped land, the areas proposed for development do not serve as a defined wildlife corridor due to the lack of riparian corridors or other topographical features crossing through the locations of the proposed fenced solar arrays. The project site is currently undeveloped, but the U.S.–Mexico border wall limits the ability of the project site to function as a significant linear north—south wildlife corridor, and the project itself would limit east—west movement within ECMSCP Draft FCA upland lands, particularly for large mammals.

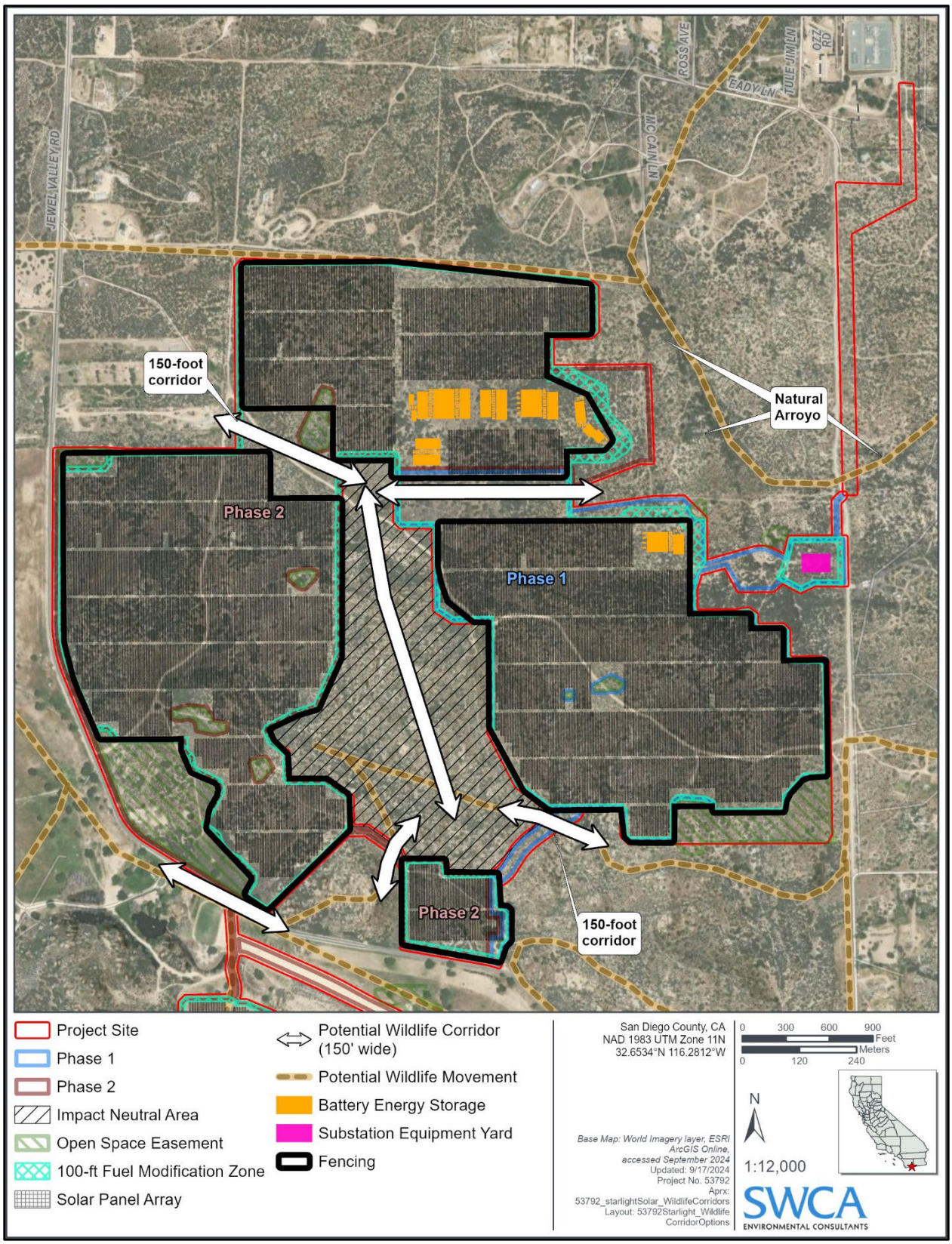


Figure 15. Conceptual Wildlife Corridor Locations On-Site.

Construction of the project would impact areas that wildlife may generally move through, but it is not anticipated to hinder wildlife movement through the surrounding undeveloped areas. The open space areas between the southern arrays would remain permeable to wildlife movement, as would the network of wildlife corridors between the fenced solar arrays and the unfenced access roads. Therefore, installation of the solar facility is not anticipated to constrain a wildlife movement corridor within the region.

The project would require permanent fencing (6-foot-tall chain-link fencing with barbed-wire topping) around each of the solar array areas, but the access roads would remain unfenced. Large mammals that may move through the site are not likely to jump over a 6-foot-tall fence, but the undisturbed habitat between the developed areas would still allow for their movement. Small animal species would also be able to travel in these undeveloped areas.

2.6.2 Indirect Impacts to Habitat Connectivity and Wildlife Corridors

2.6.2.1 Temporary Indirect Impacts

Temporary or short-term indirect impacts to habitat connectivity and wildlife corridors could result from increased human activity, lighting, and noise during construction. Project construction would occur during the day and would not affect wildlife species such as mammals that are most active in the evening and at night. Noise pollution is not anticipated to interfere with any wildlife corridors. The descriptions for impacts associated with human activity and noise are described in Section 2.4.2.1.

Lighting. If lighting is required during construction, it could potentially cause changes in the behavior of nocturnal wildlife that may result in avoidance of the project site. However, because nighttime construction is not planned, no significant impacts are anticipated.

2.6.2.2 Permanent Indirect Impacts

Permanent or long-term indirect impacts include fencing of the project site and lighting.

Fencing. Up to 9-foot-tall perimeter fencing with security barbed wire would be constructed around the project site, which could result in limited movement of certain terrestrial species.

Lighting. Low-level shielded 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. No other lighting is proposed within the solar facility. 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, Section 51.201 et seq. Additionally, project lighting 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.

3.0 SPECIAL-STATUS SPECIES

3.1 Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance (County of San Diego 2010a:11-14) listed below were used to analyze potential direct and indirect impacts to biological resources.

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.

Table 9. Avian Breeding Seasons

Species	Breeding Season
Coastal cactus wren	February 15–August 15
Coastal California gnatcatcher*	February 15–August 31
Least Bell's vireo	March 15–September 15
Southwestern willow flycatcher	May 1–September 1
Tree-nesting raptors	January 15–July 15
Ground-nesting raptors	February 1–July 15
Golden eagle	January 1–July 31
Light-footed clapper rail**	February 15–September 30

* The breeding seasons listed in this table do not supersede implementing agreements with the Wildlife Agencies, Habitat Conservation Plans (HCPs), Habitat/Resource Management Plans (HMPs/RMPs), and Special Area Management Plans (SAMPs). For example, inside the MSCP Subarea Plan, the gnatcatcher breeding season is March 1 to August 15.

**The light-footed clapper rail is a California Department of Fish and Game (CDFG) fully-protected species and under the Fish and Game Code, CDFG does not allow "take" of fully-protected species.

3.2 Analysis of Project Effects

Project impacts for each of the above guidelines for determining significance are evaluated below and a conclusion on whether the impact is significant is provided.

A. *Federal Endangered Species Act*

No federally listed endangered or threatened species have been detected on-site, nor is there a high potential for their occurrence. However, the western spadefoot, classified as a County of San Diego Group 2 species and a federally proposed threatened species, is identified as present as documented in historical records within the project area 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. Specific mitigation and avoidance measures are outlined in Section 3.4: Mitigation Measures and Design Considerations. Loss of western spadefoot (federally proposed threatened [FPT], County Group 2 and state SSC), from construction-related activities would be a significant impact (Impact BI-W-1). Loss of suitable western spadefoot toad habitat could affect the local long-term survival of the local population of this species and would be a significant impact (Impact BI-W-5).

California Endangered Species Act

No State listed endangered or threatened species have been detected on-site, nor is there a high potential for their occurrence. Suitable habitat for QCB occurs within the project site, but protocol surveys for the species were negative. The FGC published a Notice of Receipt of Petition for QCB on December 18, 2024. The FGC publicly received the petition during the February 2025 FGC meeting. Finally, the FGC publicly received CDFW's evaluation report to list QCB as endangered under CESA during the April 2025 FGC meeting.

Additionally, portions of the project site may have potential habitat to support the state candidate for listing, Crotch's bumblebee (*Bombus crotchii*) and the project falls within the species' mapped range. Loss of Crotch's bumblebee due to construction-related activities would be a significant impact (Impact BI-B-1). Loss of suitable Crotch's bumblebee habitat would affect the local long-term survival of this species and would be a significant impact (Impact BI-W-5).

B. Short-term direct impacts to County List A and 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 significant (Impact BI-SP-1).

County List A Species

Three County List A species would have long-term direct impacts from the proposed project: Jacumba milk-vetch, long-spined spineflower, and Tecate tarplant.

- Approximately 149 (Phase 1) and 1,052 (Phase 2) Jacumba milk-vetch individuals of the 1,351 observed within the survey area would be directly impacted by the project. This impact would be significant (Impact BI-SP-2).
- Approximately 50 (Phase 2) long-spined spineflower individuals of the 595 observed within the survey area would be directly impacted by the project. This impact would be significant (Impact BI-SP-2).
- Approximately 328 (Phase 2) Tecate tarplant individuals of the 1,171 observed within the survey area would be directly impacted by the project. This impact would be significant (Impact BI-SP-2).

County List B Species

Two County List B species would have long-term direct impacts from the proposed project: sticky geraea and desert beauty.

- Approximately 336 (Phase 1) and 1,046 (Phase 2) of the 2,536 sticky geraea individuals observed within the survey area would be directly impacted by the project. This impact would be significant (Impact BI-SP-2).

- Approximately 769 (Phase 1) and 74 (Phase 2) of the 2,105 desert beauty individuals observed within the survey area would be directly impacted by the project. This impact would be 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 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 significant, based on the MBTA (Impact BI-W-2). Loss of suitable nesting/foraging habitat would be a significant impact (Impact BI-W-3).

C. County List C and D Species

There will be no direct impacts to County List C species resulting from implementation of this project as none were observed or have high potential to occur.

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 1) of the 301 Colorado desert larkspur individuals observed within the survey area, and 1 (Phase 1) and 14 (Phase 2) of the 31 pride-of-California individuals observed within the survey area would be directly impacted by the project. These impacts would be significant (BI-SP-3). Payson's jewelflower and low bush monkeyflower occur within the survey area but would not be directly impacted by the project.

County Group 2 Species

County Group 2 species have a relatively widespread regional distribution, and the project would not impact their local long-term survival, as they 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 significant based on the MBTA (Impact BI-W-4).

Six County Group 2 species were detected within the survey area: western spadefoot, coastal whiptail, California horned lark, western bluebird, mule deer, and mountain lion.

An additional eight species with this designation 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 County Group 2 species were analyzed due to their status as 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. Loss of suitable habitat would affect the local long-term survival of County Group 2 species and would be a significant impact (Impact BI-W-5).

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.

E. Golden eagles have high potential to occur on-site but were not observed during surveys and 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 significant unless mitigated (Impact BI-W-6).

F. Foraging habitat for raptors is present throughout the project site. The entirety of the 588-acre project site (124.91 impact acres in Phase 1 and 438.68 impact acres in Phase 2) would be impacted—greater than 5% of on-site raptor foraging habitat. Impact neutral acres are included in this total. Therefore, this impact would be significant unless mitigated (Impact BI-W-7).

G. The project site is greater than 500 acres and supports multiple wildlife species, meeting the definition of a core wildlife area. The project would impact the viability of a core wildlife area. Therefore, this impact would be significant unless mitigated (Impact BI-W-8).

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 significant (Impact BI-SP-4). Potential long-term indirect impacts include altered hydrology, generation of fugitive dust, habitat fragmentation, introduction of chemical pollutants, increased or introduction of nonnative invasive species, shading, increased human access/activity, and alteration of the natural fire regime. These impacts would be significant unless mitigated (Impact BI-SP-5).

   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 significant unless mitigated (Impact BI-W-9).

   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 significant unless mitigated (Impact BI-W-10).

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.

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 2024a); thus, the project would not impact occupied or formerly occupied coastal cactus wren habitat. Therefore, no impacts are anticipated.

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.

L. 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 significant unless mitigated (Impact BI-W-2).

3.3 Cumulative Impact Analysis

Cumulative impacts are addressed in EIR Section 2.2 Biological Resources of the *Starlight Solar Project Draft Environmental Impact Report* (SWCA 2025).

3.4 Mitigation Measures and Design Considerations

M-BI-1 Biological Monitoring.

(a) 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.

(i) 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:

1. Conduct required preconstruction surveys as applicable and outlined in M-BI-5 below.
2. 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.
3. 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.
4. Monitor vegetation clearing, grubbing, and grading to ensure against direct and indirect impacts on biological resources that are intended to be protected and preserved.
5. 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 earth-moving activities take place within the bird breeding season, the process outlined in M-BI-5 will be followed.

6. 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.
7. 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.
8. Periodically monitor the construction site to verify that light fixtures are directed away from open space and are shielded.
9. 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.
10. 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.

(ii) 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.

(b) 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:

(i) Photos of the temporary fencing or flagging that was installed during the trenching, grading, or clearing activities

(ii) Monitoring logs showing the date and time that the monitor was on-site

(iii) 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.

(c) 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.

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, 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:

(a) 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).

(b) The habitat land to be managed will be owned by a land conservancy or equivalent.

(c) 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.

(d) A resource manager will be selected and approved, with evidence provided demonstrating acceptance of this responsibility.

(e) 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.

(f) A contract between the Applicant and County will be executed for the implementation of the RMP.

(g) The final RMP shall have project-specific requirements for the following mitigation implementation and monitoring measures:

  (i) Special-status plant species mitigation

(h) Goals: The final RMP will accomplish the following:

  (i) 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.

  (ii) 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). 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(a)) and trampling or crushing special-status amphibians, reptiles, and mammals (M-BI-5(b)), and special-status invertebrates (M-BI-5(c)) and (M-BI-5(d)).

(a) **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:

(i) 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.

1. 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:

    a. Nest survey protocols describing the nest survey methodologies

    b. A management plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks

    c. 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

d. A schedule for the submittal (usually weekly) of the NML

e. 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.

f. A detailed explanation of how the buffer widths were determined

g. All measures the Applicant will implement to preclude birds from utilizing project-related structures (i.e., construction equipment, facilities, or materials) for nesting

2. 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.

3. 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.

4. 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.

5. 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:

a. Nesting chronologies

b. Geographic location

c. Existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise)

d. 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)

e. Visibility of disturbance

f. Duration and timing of disturbance

g. Influence of other environmental factors

h. Species' site-specific level of habituation to the disturbance

6. 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.

(d) **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.

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 (a) and (b) prior to undertaking decommissioning activities.

(e) **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.

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 following the desktop habitat assessment 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.

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 required 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 and occupied 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.

(f) **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:

(a) 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.

(b) Dust-control fencing is in place and intact if fencing is required.

(c) 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.

(d) 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.

(e) Temporary structures, staging, and storage areas for construction equipment and/or materials are located outside of jurisdictional waters, including wetlands and riparian areas.

(f) 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.

(g) When construction operations are completed, excess materials or debris have been removed from the work area.

(h) No equipment maintenance is performed within or near jurisdictional WOTUS/WOS where petroleum products or other pollutants from the equipment may enter these areas.

(i) 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.

(j) There are no pets on or adjacent to construction sites.

(k) 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.**

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.

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.

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.

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.

(a) **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.

M-WF-1 **Fire Protection Plan.**

Refer to M-WF-1, Fire Protection Plan.

3.5 Conclusions

Impact BI-SP-1 Significant short-term direct impacts to County List A and B species would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-1 (Biological Monitoring) and M-BI-2 (Temporary Construction Fencing).

Impact BI-SP-2 Significant long-term direct impacts to County List A and B species would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-3 (Habitat Preservation), M-BI-4 (RMP), and M-BI-13(Special-status Plants).

Impact BI-SP-3 Significant long-term direct impacts to County List C and D species would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-3 (Habitat Preservation), M-BI-4 (RMP), and M-BI-13 (Special-status Plants).

Impact BI-SP-4 Significant short-term indirect impacts to County List A and B species would be reduced to a level that is less than significant through 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).

Impact BI-SP-5 Significant long-term indirect impacts to County List A and B species would be reduced to a level that is less than significant through 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).

Impact BI-W-1 Significant short-term direct impacts to federally proposed species for listing, state candidate for listing, County Group 1,or SSC wildlife species would be reduced to a level that is less than significant through 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).

Impact BI-W-2 Significant short-term direct impacts to active nests or young of nesting County Group 1 or SSC species would be reduced to a level that is less than significant through implementation of mitigation measure M-BI-1 (Biological Monitoring) and M-BI-5 (Avian Breeding and Special-status Wildlife Impact Avoidance).

Impact BI-W-3 Significant long-term direct impacts to County Group 1 or SSC species from removal of suitable habitat would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-3 (Habitat Preservation) and M-BI-4 (RMP).

Impact BI-W-4 Significant short-term direct impacts to active nests or young of nesting County Group 2 species would be reduced to a level that is less than significant through implementation of mitigation measure M-BI-5 (Avian Breeding and Special-status Wildlife Impact Avoidance).

Impact BI-W-5 Significant long-term direct impacts to County Group 2 species would be reduced to a level that is less than significant through implementation of mitigation measure M-BI-3 (Habitat Preservation) and M-BI-4 (RMP).

Impact BI-W-6 Significant long-term direct impacts to golden eagle from removal of suitable nesting and foraging habitat would be reduced to a level that is less than significant through implementation of mitigation measure M-BI-3 (Habitat Preservation) and M-BI-4 (RMP).

Impact BI-W-7 Significant long-term direct impacts to raptors from removal of suitable foraging habitat would be reduced to a level that is less than significant through implementation of mitigation measure M-BI-3 (Habitat Preservation) and M-BI-4 (RMP).

Impact BI-W-8 Significant long-term direct impacts to a core wildlife area would be reduced to a level that is less than significant through implementation of mitigation measure M-BI-3 (Habitat Preservation) and M-BI-4 (RMP).

Impact BI-W-9 Significant short-term indirect impacts to special-status wildlife species would be reduced to less than significant through 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).

Impact BI-W-10 Significant long-term indirect impacts to special-status wildlife species would be reduced to less than significant through 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).

4.0 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

4.1 Guidelines for Determination of Significance

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, 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), 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. (County of San Diego 2010a:15-16)

4.2 Analysis of Project Effects

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 significant unless mitigated (Impact BI-V-1).

   Long-term direct impacts to special-status upland vegetation communities would occur as a result of project implementation (Table 10). Impacts to all habitats within the project site

would be significant except for those to disturbed, bare ground, and developed land (Impact BI-V-2).

Table 10. Habitat/Vegetation Communities, Impacts, and Mitigation

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
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.

B. Short-term direct impacts to jurisdictional resources may include brushing and grubbing associated with construction preparation and establishment of fuel modification zones. These impacts would be significant unless mitigated (Impact BI-JR-1).

   The project would impact 0.81 acre (16,320) of WOS, 0.01 acre (25 linear feet) of WWOS, and 2.35 acres (16,505 linear feet) of CDFW jurisdictional resources as a result of project implementation. These long-term direct impacts would be significant unless mitigated (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 significant unless mitigated (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, alteration of the natural fire regime, and shading. These impacts would be significant unless mitigated (Impact BI-JR-4).

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 (INTERA Incorporated 2025).

   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 (INTERA Incorporated 2025). 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 (INTERA Incorporated 2025). 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 area. Therefore, impacts related to drawdown detrimental to groundwater-dependent habitat would be less than significant.

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 significant unless mitigated (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, shading, and increased human activity. These impacts would be significant unless mitigated (Impact BI-V-4).

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 percent. 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 and the wetland will be flagged for avoidance.

4.3 Cumulative Impact Analysis

Cumulative impacts are addressed in Section 4.4.3 of the *Starlight Solar Project Administrative Draft Environmental Impact Report* (SWCA 2024).

4.4 Mitigation Measures and Design Considerations

See Section 3.4 for previously stated mitigation measures.

4.5 Conclusions

Impact BI-V-1 Significant short-term direct impacts to special-status upland vegetation communities would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-1 (Biological Monitoring) and M-BI-2 (Temporary Construction Fencing).

Impact BI-V-2 Significant long-term direct impacts to special-status upland vegetation communities would be reduced to a level that is less than significant through implementation of mitigation measure M-BI-3 (Habitat Preservation) and M-BI-4 (RMP).

Impact BI-V-3 Significant short-term indirect impacts to special-status upland vegetation communities would be reduced to a level that is less than significant through 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).

Impact BI-V-4 Significant long-term indirect impacts to special-status upland vegetation communities would be reduced to a level that is less than significant through 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).

Impact BI-JR-1 Significant short-term direct impacts to jurisdictional resources would be reduced to a level that is less than significant through 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).

Impact BI-JR-2 Significant long-term direct impacts to jurisdictional resources would be reduced to a level that is less than significant through 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).

Impact BI-JR-3 Significant short-term indirect impacts to jurisdictional resources would be reduced to a level that is less than significant through 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).

Impact BI-JR-4 Significant long-term indirect impacts to jurisdictional resources would be reduced to a level that is less than significant through 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).

5.0 JURISDICTIONAL WETLANDS AND WATERWAYS

5.1 Guidelines for the Determination of Significance

County guidelines (County of San Diego 2010a:17) listed below were used to analyze potential direct and indirect impacts to jurisdictional wetlands and waterways.

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 4.1.

The 2022 CEQA statute and guidelines (Association of Environmental Professionals 2022) updates the above guideline to include state-protected wetlands, so both state- and federally protected wetlands are addressed in this section.

5.2 Analysis of Project Effects

A. See Section 4.2 B.

B. See Section 4.2 C.

E. See Section 4.2 E.

5.3 Cumulative Impact Analysis

Cumulative impacts are addressed in Section 4.4.3 of the *Starlight Solar Project Administrative Draft Environmental Impact Report* (SWCA 2022).

5.4 Mitigation Measures and Design Considerations

See Sections 3.4 and 4.4 for previously stated mitigation measures.

5.5 Conclusions

See Section 4.5, Impact BI-JR-1 through BI-JR-4.

6.0 WILDLIFE MOVEMENT AND NURSERY SITES

6.1 Guidelines for the Determination of Significance

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. (County of San Diego 2010a:17-18)

6.2 Analysis of Project Effects

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 significant unless mitigated (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 significant unless mitigated (Impact BI-WM-2).

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

As discussed in Sections 1.15.14 and 2.6, 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%. 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. 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 FCA, potentially minimizing connectivity across the east-west section of the ECMSCP FCA parcels north of Tule Jim Road (as illustrated in Figure 8), resulting in significant impacts to wildlife connectivity. However, with proposed design changes, the impacts are expected to be less than significant. Implementation of the conceptual design outlined in Figure 15 will allow for greater wildlife movement and reduce impacts to less that significant with mitigation (Impact BI-WM-4).

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 or avoid the potential for impacts to avian species (PDF-BI-1).

B. As described above, the project site is not expected to significantly impact a significant local or regional wildlife corridor or linkage. Therefore, the project would not create any artificial wildlife corridors and would not have a significant impact.

C. As described above, the project site is not expected to significantly impact a significant local or regional wildlife corridor or linkage. Lighting for the proposed project would be limited to motion detector lighting at the substation and site entry ways and would be shielded and directed downward. Therefore, lighting would have a less than significant impact on wildlife. Permanent lighting associated with the proposed project would be motion detector security lighting. Nighttime lighting would comply with the County of San

Diego Light Pollution Code (LPC), also known as the Dark Sky Ordinance, Section 59.101 et seq. Additionally, lighting for the proposed project would be designed in accordance with the San Diego County Zoning Ordinance, Performance Standards Sections 6320, 6322, and 6324 which guide performance standards for glare, and controls excessive or unnecessary outdoor light emissions. Therefore, the project would not have a significant impact on a wildlife corridor or linkage to levels likely to affect the behavior of wildlife.

D. As described above, the project site is not expected to significantly impact a significant local or regional wildlife corridor or linkage. Therefore, the project would not have a significant impact on the width of an existing wildlife corridor or linkage.

E. As described above, the project site is not considered to significantly impact a significant local or regional wildlife corridor or linkage. Therefore, the project would not have a significant impact on the visual continuity of an existing wildlife corridor or linkage.

6.3 Cumulative Impact Analysis

Cumulative impacts are addressed in Section 4.4.3 of the *Starlight Solar Project Administrative Draft Environmental Impact Report* (SWCA 2022).

6.4 Mitigation Measures and Design Considerations

See Section 3.4 for previously stated mitigation measures.

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.

6.5 Conclusions

Impact BI-WM-1 Significant short-term direct impacts to foraging and breeding habitat would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-1 (Biological Monitoring) and M-BI-2 (Temporary Construction Fencing).

Impact BI-WM-2 Significant long-term direct impacts to foraging and breeding habitat would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-3 (Habitat Preservation) and M-BI-4 (RMP).

Impact BI-WM-3 Significant short-term and long-term indirect impacts to foraging and breeding habitat would be reduced to a level that is less than significant through 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).

Impact BI-WM-4 The applicant will submit a request for a minor deviation to implement the wildlife corridors as shown in Figure 15, contingent upon the condition of approval. The anticipated impact is expected to be less than significant with the proposed mitigation measures.

7.0 LOCAL POLICIES, ORDINANCES, ADOPTED PLANS

7.1 Guidelines for the Determination of Significance

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). (County of San Diego 2010a:18-19)

7.2 Analysis of Project Effects

A. The project site does not support coastal sage scrub habitat and would not impact coastal sage scrub habitat. Therefore, no impacts are anticipated.

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. Project design has been evaluated according to the Preliminary Conservation Objectives provided in the Planning Agreement for ECMSCP (County of San Diego 2021b) as shown in Table 11. Impacts would be less than significant.

Table 11. ECMSCP Planning Agreement Conservation Objectives

Conservation Objective	Applicability/Compliance
Provide for the protection of species, natural communities, and ecosystems on a landscape level.	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.	Not applicable
Protect threatened, endangered, or other special-status plant and animal species, and minimize and mitigate the take or loss of proposed Covered Species.	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 project site to determine sensitive habitat areas.
Preserve habitat and contribute to the recovery of Covered Species.	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
Set forth species-specific goals and objectives.	Not applicable
Set forth specific habitat-based goals and objectives expressed in terms of amount, quality, and connectivity of habitat.	Not applicable
Provide an effective adaptive management and monitoring strategy for Covered Species and natural communities.	Not applicable
Provide a secured funding source to implement the Plans.	Not applicable

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 milk-vetch and long-spined spineflower. Impacts to sensitive habitat lands would be significant unless mitigated (Impact BI-P-1, -2, -3, and -4).

D. The project site does not support coastal sage scrub habitat and would not impact coastal sage scrub habitat. Therefore, no impacts would occur.

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

F. The project is not within the approved South County MSCP, it is within the in-process ECMSCP, and the Biological Mitigation Ordinance (BMO) is not applicable. Therefore, no impacts under the BMO would occur.

G. California Department of Fish and Game (CDFG) and the California Resources Agency (1993) provide a flowchart that identifies whether coastal sage scrub (CSS) habitat should be designated as higher, intermediate, or lower potential value. 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.

H. The project is not within the approved South County MSCP; it is within the in-process ECMSCP, and the BMO is not applicable. Therefore, impacts under the BMO would not occur.

I. Narrow endemic species are evaluated under the County's guidelines (County of San Diego 2010a). No narrow endemic species have been observed on-site or have high potential to occur on-site. Therefore, no impacts to these species would occur.

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

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 significant unless mitigated (Impact BI-P-5).

L. Impacts to 0.3 acre (Phase 1) and 4.3 acre (Phase 2) of marginally suitable golden eagle nesting habitat and 97.9 acres (Phase 1) and 297.8 acres (Phase 2) of foraging habitat would be significant (Impact BI-P-6).

7.3 Cumulative Impact Analysis

Cumulative impacts are addressed in Section 4.4.3 of the *Starlight Solar Project Administrative Draft Environmental Impact Report* (SWCA 2022).

7.4 Mitigation Measures and Design Considerations

As described in M-BI-5, project construction would occur outside the avian breeding season to the extent feasible (i.e., January through August), and preconstruction surveys will be conducted if project activities must occur during the breeding season. Impacts to RPO sensitive habitat lands

would be reduced to below a level of significance via M-BI-3. No other mitigation is proposed for impacts to local policies, ordinances, and plans because the project is consistent with all approved planning documents/plans.

7.5 Conclusions

Impact BI-P-1 Significant short-term direct impacts to sensitive habitat lands would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-1 (Biological Monitoring) and M-BI-2 (Temporary Construction Fencing).

Impact BI-P-2 Significant long-term direct impacts to sensitive habitat lands would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-3 (Habitat Preservation) and M-BI-4 (RMP).

Impact BI-P-3 Significant short-term indirect impacts to sensitive habitat lands would be reduced to a level that is less than significant through 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).

Impact BI-P-4 Significant long-term indirect impacts to sensitive habitat lands would be reduced to a level that is less than significant through 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).

Impact BI-P-5 Significant long-term direct impacts to migratory birds and active migratory bird nests and/or eggs protected under the MBTA would be reduced to a level that is less than significant through implementation of mitigation measures M-BI-1 (Biological Monitoring) and M-BI-5 (Avian Breeding and Special-status Wildlife Impact Avoidance).

Impact BI-P-6 Significant long-term direct impacts to golden eagle from removal of suitable nesting and foraging habitat would be reduced to a level that is less than significant through implementation of mitigation measure M-BI-3 (Habitat Preservation) and M-BI-4 (RMP).

8.0 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Table 12 provides a summary of the project's significant impacts.

Table 12. Summary of Significant Impacts

Relevant Report Section	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-3 Habitat Preservation M-BI-5 Avian Breeding and Special-status Wildlife Impact Avoidance	Less than significant	4.1 B
3.2	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	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 Animals**, 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 Animals**, 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

Relevant Report Section	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
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 M-BI-9 Operations and Maintenance Signage M-BI-13 Special-Status Plants	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-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-13 Special-Status Plants M-WF-1 Fire Protection Plan	Less than significant	4.1 H
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-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	Less than significant	4.1 H

Relevant Report Section	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
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-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 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-10 Noise Reduction 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
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

Relevant Report Section	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
4.2	Impact BI-JR-4	Jurisdictional Resources	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 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
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

Relevant Report Section	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
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	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

Table 13 provides a summary of the project's proposed mitigation measures.

Table 13. Summary of Mitigation Measures

Mitigation Number	Mitigation Summary	Level of Significance After Mitigation	Guideline Number(s)
M-BI-1	Biological Monitoring	Less than significant	4.1 B, 4.1 C, 4.1 H, 4.2 A, 4.2 B, 4.2 D, 4.3 B, 4.4 A, 4.5 C, 4.5 K
M-BI-2	Temporary Construction Fencing	Less than significant	4.1 B, 4.1 H, 4.2 A, 4.2 B, 4.2 D, 4.3 B, 4.4 A, 4.5 C
M-BI-3	Habitat Preservation	Less than significant	4.1 B, 4.1 C, 4.1 E, 4.1 F, 4.1 G, 4.1 H, 4.2 A, 4.2 B, 4.2 D, 4.2 E, 4.3 B, 4.4 A, 4.5 C, 4.5 L
M-BI-4	Resource Management Plan	Less than significant	4.1 B, 4.1 C, 4.1 E, 4.1 F, 4.1 G, 4.1 H, 4.2 A, 4.2 B, 4.2 D, 4.2 E, 4.3 B, 4.4 A, 4.5 C, 4.5 L
M-BI-5	Avian Breeding and Special-status Wildlife Impact Avoidance	Less than significant	4.1 B, 4.1 C, 4.1 H, 4.4 A, 4.5 K
M-BI-6	Biological Monitoring of SWPPP	Less than significant	4.1 H, 4.2 B, 4.2 D, 4.3 B, 4.4 A, 4.5 C
M-BI-7	Prevention of Chemical Pollutants	Less than significant	4.1 H, 4.2 B, 4.2 D, 4.3 B, 4.5 C
M-BI-8	Prevention of Invasive Plant Species	Less than significant	4.1 H, 4.2 B, 4.2 D, 4.3 B, 4.5 C
M-BI-9	Operations and Maintenance Signage	Less than significant	4.1 H, 4.2 D, 4.4 A, 4.5 C
M-BI-10	Noise Reduction	Less than significant	4.1 H, 4.4 A
M-BI-11	Mitigation Measures and Design Considerations for Jurisdictional Wetlands and Waterways	Less than significant	4.2 B, 4.2 C, and 4.2 E
M-WF-1	Fire Protection Plan	Less than significant	4.1, 4.2, 4.3

9.0 REFERENCES

American Ornithological Society. 2024. Checklist of North and Middle American Birds. Available at: http://checklist.aou.org/taxa. Accessed October 2024.

Association of Environmental Professionals. 2022. *2022 CEQA California Environmental Quality Act Statute and Guidelines*. Available at: https://www.califaep.org/docs/2022_CEQA_Statue_and_Guidelines.pdf. Accessed October 2024.

Avian Power Line Interaction Committee (APLIC). 2006. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006.* Washington, D.C., and Sacramento, California: Edison Electric Institute, APLIC, and California Energy Commission.

Baumberger, K.L., Eitzel, M.V., Kirby, M.E., Horn, M.H., 2019. Movement and habitat selection of the western spadefoot (Spea hammondii) in southern California. *PLoS One* 14, e0222532. https://doi.org/10.5061/dryad.8359820.

Calflora. 2024. Calflora database. Information on wild California plants. Available at: http://www.calflora.org/. Accessed October 2024.

California Department of Fish and Game (CDFG) and California Resources Agency. 1993. *Southern California Coastal Sage Scrub NCCP Conservation Guidelines*. August 1993.

California Department of Fish and Wildlife (CDFW). 2018. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.* March 20, 2018.

———. 2023. California Natural Community List. June 1. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline. Accessed October 2024.

———. 2024a. Biogeographic Data Branch. Available at: www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed October 2024.

———. 2024b. *Special Vascular Plants, Bryophytes, and Lichens List: October 2024*. State of California, Natural Resources Agency, Department of Fish and Wildlife, Biogeographic Data Branch, California Natural Diversity Database. Available at: https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals. Accessed October 2024.

———. 2024c. *Special Animals List: October 2024*. California State of California, Natural Resources Agency, Department of Fish and Wildlife, Biogeographic Data Branch, California Natural Diversity Database. Available at: https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals. Accessed October 2024.

California Native Plant Society (CNPS). 2001. *CNPS Botanical Survey Guidelines.* December 9, 1983. Revised June 2, 2001. Available at: https://cnps.org/wp-content/uploads/2018/03/cnps_survey_guidelines.pdf. Accessed October 2024.

———. 2024a. Rare plant inventory. Available at: www.rareplants.cnps.org/. Accessed October 2024.

———. 2024b. A manual of California vegetation online. Available at: https://vegetation.cnps.org/. Accessed October 2024.

Consortium of California Herbaria. 2024. Consortium of California Herbaria. Available at: http://ucjeps.berkeley.edu/consortium/. Accessed October 2024.

County of San Diego. 2010a. *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources.* Fourth Revision. Land Use and Environment Group, Department of Planning and Land Use, Department of Public Works. September 15.

———. 2010b. *County of San Diego Report Format and Content Requirements: Biological Resources.* Fourth Revision. Land Use and Environment Group, Department of Planning and Land Use, Department of Public Works. September 15. ———. 2012. Chapter 6. Resource Protection Ordinance. San Diego County Code of Regulatory Ordinances, Title 8 Zoning and Land Use Regulations, Division 6. Miscellaneous Land Use Regulations. Amended by Ord. No. 10224 (N.S.). Adopted October 25, 2012.

———. 2021a. San Diego County General Plan. August 2011. Amended July 14, 2021.

———. 2021b. *Planning Agreement by and among the County of San Diego, the California Department of Fish and Wildlife, and the United States Fish and Wildlife Service regarding the North and East County Multiple Species Conservation Program Plans: Natural Community Conservation Program Plans and Habitat Conservation Plans, Third Restated and Amended*. March.

Crother, B.I. 2008. *Scientific and Standard English names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in our Understanding*. 6th ed. Herpetological Circular No. 37. Edited by J.J. Moriarty. Shoreview, Minnesota: Society for the Study of Amphibians and Reptiles. January.

Dudek. 2014. *Draft Biological Resources Report for the Tierra del Sol Solar Major Use Permit PDS2012-3300-12-010, Rezone PDS2012-3600-12-005, Environmental Review Number PDS2012-3910-120005, Boulevard, San Diego County, California*. Prepared for the County of San Diego Planning and Development Services and Tierra del Sol Solar Farm LLC. December.

———. 2015. *Draft Biological Resources Report for the Jacumba Solar Energy Project Major Use Permit PDS2014-MUP-14-041, Environmental Review Project Number PDS2014-ER-14-22-001, Jacumba, San Diego County, California*. Prepared for the County of San Diego Planning and Development Services and Jacumba Solar LLC. September.

eBird. 2024. eBird: An online database of bird distribution and abundance [web application]. Ithaca, New York. Available at: http://www.ebird.org. Accessed October 2024.

Ewing, Brittany A., Richmond, Jonathan Q., and Fisher, Robert N. 2023. *Camera Surveillance Across an Ecotone in East San Diego County with Emphasis on Detecting* Gambelia copeii, *Draft Final 2023*.

Google Earth. 2024. Boulevard, California. Available at: https://www.google.com/earth/. Accessed October 2024.

Halstead, B.J., Baumberger, K.L., Backlin, A.R., Kleeman, P.M., Wong, M.N., Gallegos, E.A., Rose, J.P., Fisher, R.N., 2021. Conservation implications of spatiotemporal variation in the terrestrial ecology of western spadefoots. *Journal of Wildlife Management* 85:1377–1393. https://doi.org/10.1002/jwmg.22095.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Sacramento: California Department of Fish and Game, Non-game Heritage Program.

iNaturalist. 2024. iNaturalist. Available at: https://www.inaturalist.org/. Accessed October 2024.

INTERA Incorporated. 2025. *Groundwater Monitoring and Mitigation Plan for the Starlight Solar Project.* July.

Jepson Flora Project. 2024. The Jepson Herbarium. Available at: https://ucjeps.berkeley.edu/eflora/. Accessed October 2024.

Nafis, G. 2012. California Herps. A Guide to the Reptiles and Amphibians of California. Available at: http://www.californiaherps.com. Accessed May 2022.

Natural Resources Conservation Service (NRCS). 2024. Soil use. Available at: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed October 2024.

NatureServe Explorer (NatureServe). 2024. NatureServe Explorer. Available at: https://explorer.natureserve.org/Search. Accessed October 2024.

North American Butterfly Association. 2001. Checklist of North American Butterflies, 2nd Ed. Available at: http://www.naba.org/pubs/checklst.html. Accessed October 2024.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County. Based on Preliminary Descriptions of the Terrestrial Natural Communities of California, prepared by Robert F. Holland, Ph.D., for State of California, The Resources Agency, Department of Fish and Game (October 1986).*

Rebman, J.P., and M.G. Simpson. 2014. *Checklist of the Vascular Plants of San Diego County.* 5th ed. San Diego, California: San Diego Natural History Museum.

San Diego Natural History Museum. 2024. Amphibian and Reptile Atlas of Peninsular California. Available at: https://herpatlas.sdnhm.org/. Accessed October 2024.

SanGIS. 2024. Parcel Lookup Tool and Geographic Boundary Viewer. Available at: https://gis-sangis1.hub.arcgis.com/pages/interactive-map. Accessed October 2024.

SWCA Environmental Consultants (SWCA). 2022. *Starlight Solar Project Administrative Draft Environmental Impact Report*. Prepared for the County of San Diego. San Diego, California: SWCA Environmental Consultants. July.

———. 2023. *Project Description for the Starlight Solar Project, San Diego County, California*. Prepared for Starlight Solar, LLC. San Diego, California: SWCA Environmental Consultants. October.

Unitt, P., A.E. Klovstad, W.E. Haas, P.J. Mock, K.J. Winter, and A. Mercieca. 2004. *San Diego County Bird Atlas*. San Diego, California: San Diego Natural History Museum.

University of California, Santa Barbara. 2024. Aerial Photography Frame Finder. Available at: https://mil.library.ucsb.edu/ap_indexes/FrameFinder/. Accessed October 2024.

U.S. Army Corps of Engineers (USACE). 1987. *Corps of Engineers Wetlands Delineation Manual.* Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineers Waterways Experiment Station.

———. 2008a. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the United State*s. Edited by R.W. Lichvar and S.M. McColley. ERDC/CRREL TR-08-12. Hanover, New Hampshire: U.S. Army Engineer Research and Development Center.

———. 2008b. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. Version 2.0. Edited by J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center.

———. 2022. National Wetland Plant List. Version 3.6. Hanover, New Hampshire: U.S. Army Corps of Engineers Research and Development Center, Cold Regions Research and Engineering Laboratory. Available at: https://wetland-plants.sec.usace.army.mil/. Accessed October 2024.

U.S. Fish and Wildlife Service (USFWS). 2014. *Quino Checkerspot Butterfly Survey Guidelines*. Available at: https://www.fws.gov/sites/default/files/documents/survey-guidelines-for-quino-checkerspot-butterfly.pdf. Accessed October 2024.

———. 2024a. Species. Available at: https://www.fws.gov/species. Accessed October 2024.

———. 2024b. Information for Planning and Consultation. Available at: https://ipac.ecosphere.fws.gov/. Accessed October 2024.

———. 2024c. National Wetlands Inventory, Wetlands Mapper. Available at: https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper. Accessed October 2024.

Western Regional Climate Center. 2024. Historical Climate Information: Boulevard. Available at: https://wrcc.dri.edu/. Accessed October 2024.

Wilson, D.E., and D.M. Reeder (eds.). 2005. *Mammal Species of the World: A Taxonomic and Geographic Reference*. 3rd ed. Online version. Baltimore, Maryland: Johns Hopkins University Press. Available at: http://www.bucknell.edu/msw3/. Accessed October 2024.

10.0 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

Lee BenVau, Project Restoration Ecologist, Field Investigator, Co-author, and County of San Diego Approved CEQA Consultant – Biological Resources

Danielle Desruisseaux, Project Technical Editor, Technical Editing

Jason Glenn, Associate Technical Editor, Technical Editing

Leonard Griffiths, Senior Natural Resources Team Lead, Project Management and QA/QC

Deidre Knodell, Associate Technical Editor, Technical Editing

Tamara Kramer, Associate Project Biologist, Field Investigator and Co-author

Kara Laurenson-Wright, Lead Environmental Planner – Project Manager

Robert MacAller, Senior Natural Resources Director – Southern California, QA/QC

Omar Moquit, Associate Project Manager, Field Investigator, Project Management and Co-author

Kimberly Proa, Project Formatter, Formatting

Aramis Respall, CAD/GIS Specialist, GIS Services

Lauren Strong, Associate Project Biologist – Avian, Field Investigator and Co-author