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Biological Resources Technical Report for the Seville 5 Solar Energy Project, Imperial County, California

FEBRUARY 2025

PREPARED FOR

Apex Energy Solutions, LLC

PREPARED BY

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**BIOLOGICAL RESOURCES TECHNICAL REPORT FOR THE
SEVILLE 5 SOLAR ENERGY PROJECT,
IMPERIAL COUNTY, CALIFORNIA**

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1 INTRODUCTION

This Biological Resources Technical Report was prepared by SWCA Environmental Consultants (SWCA) in support of the Seville 5 Solar Project (project). SWCA was retained by Apex Energy Solutions, LLC (Apex Energy), to conduct field and desktop studies to provide the technical basis for the assessment of potential impacts to biological resources that may result from implementation of the project. In addition to a description of the existing conditions, this report describes how biological resources will be potentially affected by the construction, operation, and maintenance of the project. This report may be used to support the environmental documentation and evaluation of the project pursuant to the California Environmental Quality Act (CEQA).

1.1 Project Location

Apex Energy proposes to construct a 65-megawatt (MW) solar facility with a 130-MW battery energy storage system (BESS) on approximately 267 acres located in unincorporated Imperial County, California (Figure 1). The proposed project is located just south of State Route (SR) 78, approximately 7 miles east of Ocotillo Wells and approximately 9 miles west of SR 86. The project site is also approximately 14 miles from the southern tip of the Salton Sea and 4 miles east of the Imperial County–San Diego County line. The project is located on one privately owned parcel, Imperial County Assessor’s Parcel Number (APN) 018-010-043.

The project is partially situated on San Felipe Creek, and the general area surrounding the site is either vacant land consisting of sand dunes and local washes or developed solar fields. The project is bound to the north by SR 78, with Ocotillo Wells Off-Highway Vehicle (OHV) State Recreation Area on the north side of SR 78. Vacant land is to the east. Developed portions of Seville 1 and Seville 2 Solar facilities are located immediately to the southeast of the project, and the Titan 1 Solar facility is located further southeast. The proposed Seville 4 Solar project is immediately to the south, on currently vacant land. Vacant land is to the west, with the Ocotillo Recreational Vehicle (RV) Resort approximately 0.5 mile west. The site exhibits a generally planar and flat-lying topography, which can be partially attributed to previous agricultural activities that included in-filling of the former creek bottom of San Felipe Creek.

The project is in Sections 15 and 22, Township 12 South, Range 9 East, as depicted on the U.S. Geological Survey (USGS) Borrego Mountain SE, California, 7.5-minute topographic quadrangle (Figures 1 through 3).

1.2 Project Description

The project applicant proposes improvements for the 65-MW solar project that will consist of solar photovoltaic (PV) arrays, inverter transformer stations, a 130-MW BESS, numerous underground cable raceways, a substation, maintenance access roads, and maintenance buildings. The project proposes to use solar PV technology modules mounted on horizontal single-axis tracker systems. The fixed-frame PV module arrays would be mounted on racks that would be supported by driven piles, arranged in arrays spaced up to 30 feet apart (pile to pile) to maximize performance and to allow access for panel cleaning. Solar modules would be a maximum of 10 feet high. These arrays would be separated from each other and the perimeter security fence by at least 20-foot-wide interior roads to provide access to all areas for maintenance and emergency vehicles.

Electricity generated by the PV modules would be collected by a direct current (DC) collection system routed underground in trenches. This DC power would be delivered to pad-mounted inverters in weatherproof enclosures located within the arrays.

The proposed BESS will be constructed at the southeast corner of the project site, adjacent to the project's solar facilities and will consist of either lithium ion or flow batteries. Underground trenches with conduits would be used to connect the batteries to the control and monitoring systems, and inverters would be used to convert the PV-produced DC power to alternating current (AC) power. From the Seville 5 BESS, the project would connect to a new generation tie (gen-tie) line that extends southeast to the point of interconnection for Seville 5, at the existing Titan 1 Solar project switching station.

Due to the relatively flat-lying topography, site grading is expected to entail minor cuts and fills to provide access roads, site drainage, and building sites for structures. An estimated 90% of ground disturbance would consist of excavation and post installation, as well as trenching for underground utilities and drainage culverts performed using mechanical methods. The remaining 10% of ground disturbance would be caused by overland travel for improvements and maintenance of solar panel blocks with solar photovoltaic arrays and various inverter transformer stations.

All proposed treatment areas, including roads, trails, access roads, and staging areas, are located on previously disturbed soils. Ground disturbance is not anticipated to exceed a depth of 8 feet by vibratory pile hammer and is not anticipated to exceed 48 inches for utilities trenching for underground utilities and would be a result of heavy equipment use. The project lifespan is 20 to 25 years.

Buffer zones will be established around all biologically and culturally sensitive resources, as necessary. In addition, a 50-foot-wide buffer will be established around all streams and floodplains.

1.3 Existing Setting

The project site is relatively flat, with a maximum elevation of approximately 8.5 meters above mean sea level (amsl) at the southeast corner of the project and a minimum elevation of approximately 0.3 meters amsl at the northwest corner (see Figure 3). The areas immediately surrounding the project site in all directions consist of open space, with California State Route 78 located approximately 0.3 mile north of the project (see Figure 1). Adjacent land uses include the Ocotillo Wells OHV State Recreation Area to the north, Solar Power Panels Power Plant and Tarantula Wash to the east, and vacant land and San Felipe Creek to the south and west. The project site is approximately 0.5 mile east of the Ocotillo RV Resort. Anza Borrego Desert State Park is located approximately 13 miles to the west, and the Salton Sea is located approximately 12 miles to the northeast of the project.

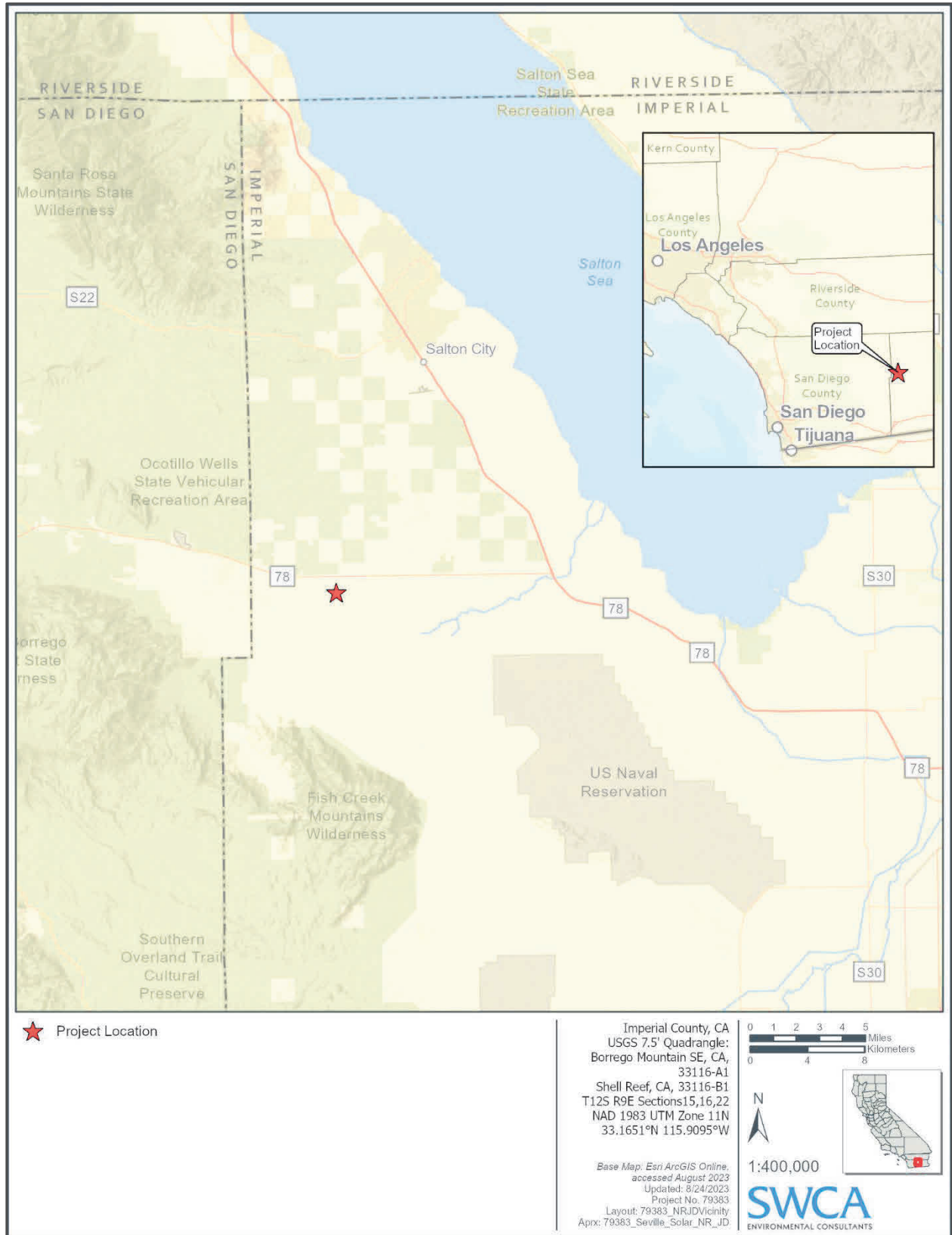


Figure 1. Project vicinity.

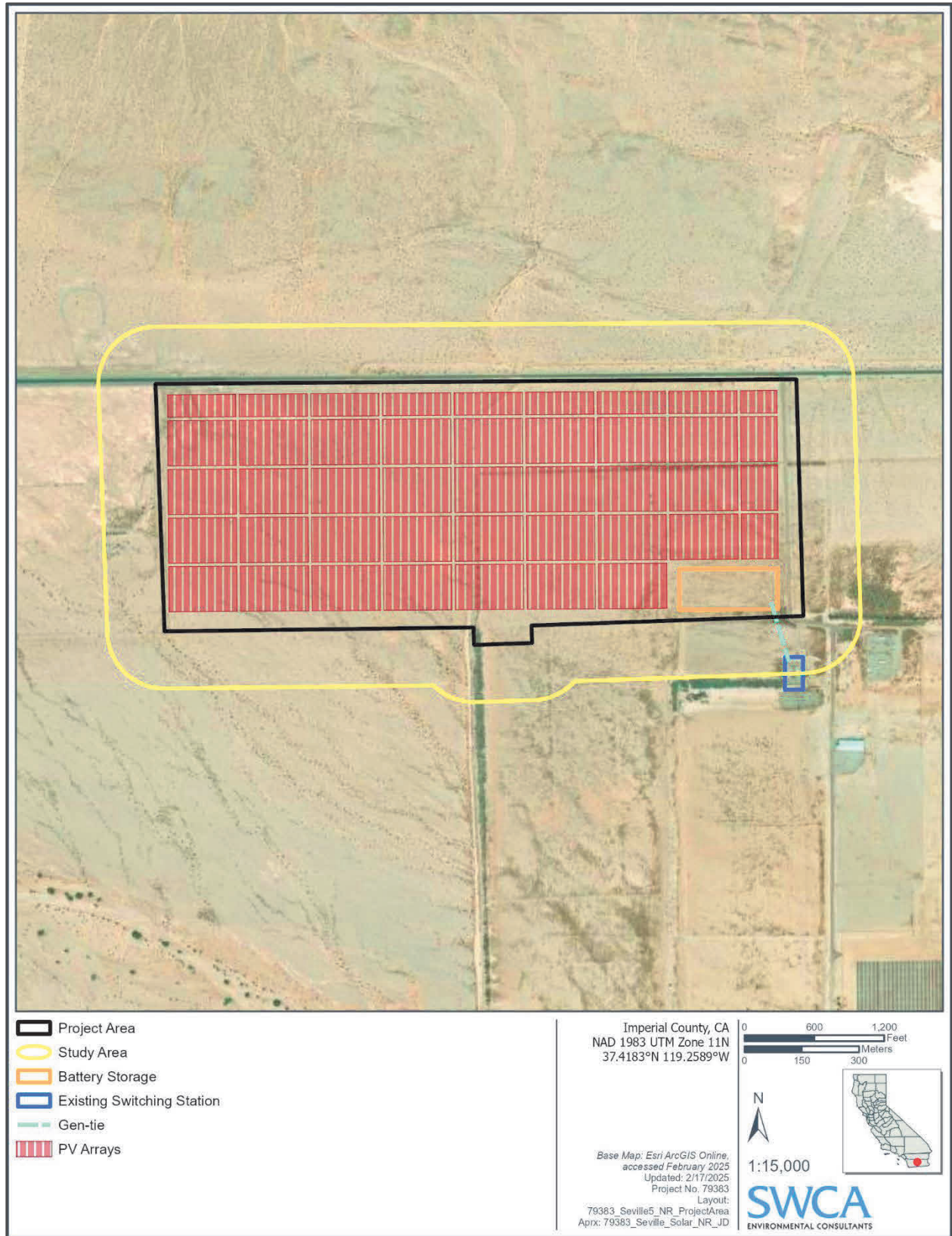


Figure 2. Project location with aerial background.

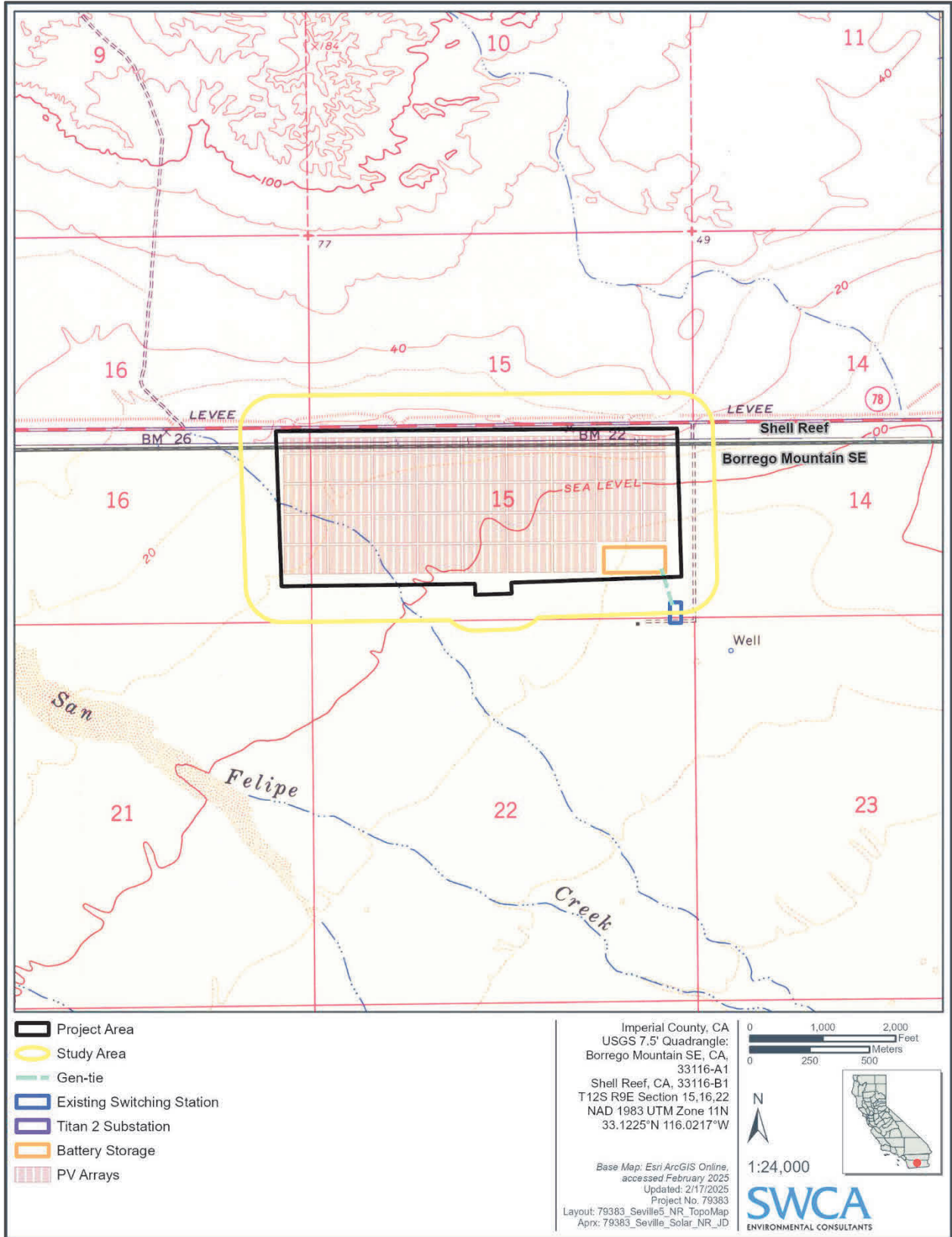


Figure 3. Project location with topographic background.

2 REGULATORY OVERVIEW

This report characterizes the biological resources that would potentially be affected by construction, operation, and maintenance of the project. On-site natural resources or those with a high probability of occurring in the project site may require mitigation for impacts that could result from project development. Mitigation requirements are based on a number of federal, state, and local laws, regulations, and policies relating to plants and wildlife, migratory and nesting birds, and environmental quality. The following discussion reviews these policies and how they pertain to any tasks implemented under the project.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The U.S. Congress passed the Endangered Species Act (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 Code of Federal Regulations [CFR] 17.3). “To harass” 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. “Incidental take” is defined by the ESA as take that is incidental to, and not for the purpose of, carrying out an otherwise lawful activity.

The ESA authorizes the U.S. Fish and Wildlife Service (USFWS) to issue permits under Sections 7 and 10. Section 7 mandates that all federal agencies consult with the USFWS for terrestrial species and/or the 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. The ESA defines “critical habitat” as habitat deemed essential to the survival of a federally listed species, and the federal government is required to designate critical habitat for any species it lists under the ESA regulations. A critical habitat designation does not set up a preserve or refuge, and applies only when federal funding, permits, or projects are involved. Critical habitat requirements do not apply to activities on private land and that do not involve a federal agency.

Any anticipated adverse effects must be assessed to determine potential effects of a project on listed species and critical habitat. If a project may adversely affect a listed species or its habitat, the USFWS or National Marine Fisheries Service would need to prepare a Biological Opinion as part of the incidental take permit process. The Biological Opinion may recommend “reasonable and prudent alternatives” to a project to avoid jeopardizing or adversely modifying habitat, including take limits.

Non-federal projects may still pursue Section 7 permitting when a federal nexus, such as federal funding or permitting (e.g., through the U.S. Army Corps of Engineers under Section 404 of the federal Clean Water Act), is available. When no nexus is available, Section 10(a)(1)(B) authorizes issuance of permits to allow incidental take of listed species. To obtain an incidental take permit, an applicant must submit

a habitat conservation plan and conduct an assessment on the impacts of the action, outlining steps to minimize and mitigate permitted take impacts to listed species.

2.1.2 Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), first enacted in 1918, 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, 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 under the protection of the MBTA 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 act and excluded all non-native species. Thus, it is illegal under the MBTA to directly kill, or destroy a nest of, nearly any native bird species, not just endangered species. Activities that result in removal or destruction of an active nest (a nest with eggs or young being attended by one or more adults) would violate the MBTA. Removal of unoccupied nests and bird mortality resulting indirectly from disturbance activities are not considered violations of the MBTA.

2.1.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC 668–668c), enacted in 1940, and amended several times since, prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald eagles (*Haliaeetus leucocephalus*), including their parts, nests, or eggs. In 1962, Congress amended the act to cover golden eagles (*Aquila chrysaetos*).

The act 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 act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.”

Under USFWS rules, “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 (16 USC § 22.3; 72 Federal Register 31,132, June 5, 2007).

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.

2.2 State Regulations

2.2.1 California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the “taking” of listed species except as otherwise provided by state law. Section 86 of the California Department of Fish and Game (CDFG) Code defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” In addition to affording protections for species listed as threatened or endangered, the CESA applies these take prohibitions to species that have not yet been granted threatened or endangered status, but which are accepted as candidates for listing by the California Fish and Game Commission. 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 a list of species of special concern (or watch list species).

2.2.2 Fully Protected Species

The CDFG 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.

2.2.3 Nesting Birds and Raptors

Section 3503 of the CDFG 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.

2.2.4 Migratory Bird Protection

Take or possession of any migratory non-game bird as designated in the MBTA is prohibited by Section 3513 of the CDFG Code.

2.2.5 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (CDFG Code Section 1900-1913) directed the CDFG (now known as 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 (under the CDFW) the power to designate native plants as endangered or rare and protect endangered and rare plants from take. The NPPA thus includes measures to preserve, protect, and enhance rare and endangered native plants.

CESA has largely superseded 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 CDFW at least 10 days in advance of changing land uses to allow the CDFW to salvage any rare or endangered native plant material.

2.2.6 California Desert Native Plants Act

The California Desert Native Plants Act (CDNPA) protects non-listed California desert native plants from unlawful harvesting on public and private lands in the counties of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego (California Food and Agriculture Code, Sections 80001-80006, Division 23). A number of desert plants are protected under this act, including all species in the agave and cactus families.

2.2.7 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. The CEQA requires that a project's effects on environmental resources must be analyzed and assessed using criteria determined by the lead agency. The 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.

2.2.7.1 CEQA SIGNIFICANCE CRITERIA

Section 15064.7 of the CEQA guidelines encourages local agencies to develop and publish the thresholds that the agency will use in determining the significance of environmental effects caused by projects or actions under its review. Appendix G of the CEQA guidelines provides thresholds to evaluate impacts that would normally be considered significant. Based upon these guidelines, impacts to biological resources would normally be considered significant if the project:

- Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the CDFW or USFWS;
- Has 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;
- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites;
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

An evaluation of whether an impact to biological resources would be significant must consider both the resource itself and how that resource fits into a regional or local context. Significant impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations.

The evaluation of impacts considers direct impacts, indirect impacts, cumulative impacts, as well as temporary and permanent impacts.

2.3 Local Regulations and Plans

2.3.1 Imperial County General Plan

The Imperial County General Plan contains the Conservation and Open Space Element (Imperial County 2016), which defines policies intended to conserve and protect the County's environmental resources, including biological resources, while encouraging economic development and growth. This Element lists the following four purposes:

- Promote the protection, maintenance, and use of the County's natural and cultural resources with particular emphasis on scarce resources and resources that require special control and management.
- Prevent the wasteful exploitation, destruction, and neglect of the State's natural and cultural resources.
- Recognize that natural resources must be maintained for their ecological value, as well as for the direct benefit to the public.
- Protect open space for the conservation of natural and cultural resources, the managed production of resources, outdoor recreation, and public health and safety.

The Element defines goals specific to the conservation of biological resources:

Goal 1: Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value.

Objective 1.1: Encourage uses and activities that are compatible with the fragile desert environment and foster conservation.

Objective 1.2: Coordinate the acquisition, designation, and management of important natural and cultural resource areas in Imperial County with other governmental agencies as appropriate.

Objective 1.3: Develop standards to protect significant natural and cultural resource areas for the purpose of enhancing both the planning and decision-making process.

Objective 1.4: Ensure the conservation and management of the County's natural and cultural resources.

Objective 1.5: Provide opportunities for enjoyment of a quality natural experience to present and future generations.

Objective 1.6: Promote the conservation of ecological sites and preservation of cultural resource sites through scientific investigation and public education.

Goal 2: The County will integrate programmatic strategies for the conservation of critical habitats to manage their integrity, function, productivity, and long-term viability.

Objective 2.1: Designate critical habitats for federally listed and state-listed species.

Objective 2.2: Develop management programs, including preservation of habitat for flat-tailed horned lizard (*Phrynosoma macalli*), desert pupfish (*Cyprinodon macularis*), and burrowing owl (*Athene cunicularia*).

Objective 2.3: Support investigation of long-term climate change effects on biological resources.

Objective 2.4: Use the CEQA and NEPA process to identify, conserve, and restore sensitive vegetation and wildlife resources.

Objective 2.5: Give conservation of sensitive species and habitat a high priority in County park acquisition and development programs.

Objective 2.6: Attempt to identify, reduce, and eliminate all forms of pollution; including air, noise, soil, and water.

The County defines policies and programs to implement these goals and objectives:

Policy: Provide a framework for the conservation and enhancement of natural and created open space, which provides wildlife habitat values.

- Identify Resource Areas to conserve and enhance native vegetation and wildlife. These areas include agency-designated sensitive habitats with the USFWS, BLM Areas of Critical Environmental Concern, and CDFW. These designated lands are designed for the protection and perpetuation of rare, endangered, and threatened species and areas important for scientific study.
- Projects within or in the vicinity of a Resource Area should be designed to minimize adverse impacts on the biological resources it was created to protect.
- Accept donations of land that have high wildlife value. Where appropriate, Imperial County shall attempt to exchange donated lands of high wildlife value with other state, federal, or other resource agencies equipped to protect and manage such lands for other lands more appropriate to County needs.
- Develop an environmental mitigation program that protects and restores Salton Sea wildlife habitats as offsets to biological disturbances identified through the CEQA review process for development projects. The program would allow the County and/or Salton Sea Joint Powers Agreement to restore habitat through financing mechanisms including land banks and/or direct financial contributions from the developers to mitigate their impacts.
- Conserve the native habitat of sensitive plants and animals through the dedication of open space easements, or other means that will ensure their long-term protection and survival. Such easements may preclude the erecting of any structures (temporary or permanent), vegetation removal, or any other activities. These dedicated open space easements would also serve to reduce potential indirect impacts to sensitive biological resources that may result from human activities associated with future developments.
- Areas designated for biological open space conservation shall include buffers, which provide important breeding and foraging habitats for native and migratory birds and animals. Such buffers shall serve to separate future development from adjacent native habitat areas to ensure the perpetual regeneration of these habitats.
- Protect riparian habitat and other types of wetlands from loss or modification by dedicating open space easements with adequate buffer zones, and by other means to avoid impacts from adjacent land uses. Road crossings or other disturbances of riparian habitat should be minimized and only allowed when alternatives have been considered and determined infeasible.
- Rock outcrops, which serve as significant boulder habitat for sensitive biological resources, should be considered within open space easements.

- Preserve existing California fan palms (*Washingtonia filifera*) in natural settings and other individual specimen trees that contribute to the community character and provide wildlife habitat.
- Preserve and encourage the open space designation of wildlife corridors, which are essential to the long-term viability of wildlife populations.
- Integrate open space dedications in private developments with surrounding uses to maximize a functional open space/recreation and wildlife management system.

3 METHODS

This section identifies the methods and information sources used to describe and evaluate the biological resources at the proposed Seville 5 Solar Energy Project. The first step was to conduct a search of literature and databases to identify biological resources that may occur at the project site. These sources included species records from wildlife studies completed at or near the project site, published literature, and SWCA biologists’ professional judgment based on experience in southern California deserts. The desktop analysis was originally conducted in 2023. However, when Seville 4 and 5 were divided into separate reports in 2025, the analysis was repeated to reflect the updated project boundaries.

The next step was to perform field surveys at the project site to characterize existing habitat conditions at the property and conduct focused surveys for sensitive species (and other resources) expected to occur in the area. Field surveys conducted in 2023 include a habitat assessment, vegetation mapping, rare plant survey (Table 1), and a waters jurisdictional delineation. The methods and results for the jurisdictional delineation are discussed in a separate report (SWCA 2023). In addition, comprehensive lists of identified plant and wildlife species were compiled (Appendix A). Each survey was conducted during the appropriate survey season. The survey methods were guided by the species considered potentially present in the area, review of local, state, and federal regulations regarding sensitive biological resources and the environmental impacts of large projects, and survey guidelines published by the CDFW and USFWS.

Table 1. Field Survey Dates and Personnel

Date	Field Survey	Personnel
May 1–5, 2023	Rare plant survey, vegetation community mapping, and wildlife survey	Gigi Wagnon, Mason Townley
May 8–9, 2023	Rare plant survey, vegetation community mapping, and wildlife survey	Mason Townley, Tamara Kramer

3.1 Database and Literature Reviews

Prior to conducting the 2023 field surveys, SWCA conducted a desktop analysis of the project site, querying publicly available resources. The search query consisted of the nine USGS 7.5-minute quadrangles at and surrounding the project site: Borrego Mountain SE (site), Shell Reef, Kane Spring NW, Kane Spring NE, Harpers Well, Kane Spring, Carrizo Mountain NE, Plaster City NW, and Superstition Mountain. The results of the desktop review served as the basis for the biological field surveys described in this report. In 2025, the desktop analysis was repeated to incorporate updated species data into the review.

- USFWS Information for Planning and Consultation (IPaC) species list (USFWS 2025a)
- CDFW California Natural Diversity Database (CNDDDB) (CDFW 2025a)
- Calflora: Information on Wild California Plants (Calflora 2025)

- Consortium of California Herbaria (CCH): Specimen data from the Consortium of California Herbaria (CCH 2025)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2025a)
- California Herps - A Guide to the Amphibians and Reptiles of California web-based database (Nafis 2025)
- eBird's web-based bird database (eBird 2025)
- iNaturalist: A Community for Naturalists (iNaturalist 2025)
- Aerial imagery (Google Earth 2025)

3.1.1 **Assessment of Special-Status Species Potential for Occurrence**

Assessment of special-status species was based on the literature review and field surveys. Special-status species evaluated in this study include plants and animals in one or more of the following categories:

- Species listed or proposed for listing as threatened or endangered under the federal ESA (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the *Federal Register* [proposed species]).
- Species that are candidates for possible listing as threatened or endangered under the ESA (67 *Federal Register* 40657, June 13, 2002).
- Species listed or that are candidates for listing by the State of California as threatened or endangered under the CESA (14 California Code of Regulations 670.5).
- Species that meet the definitions of rare or endangered under the CEQA (State CEQA Guidelines Section 15380).
- Plants listed as rare under the California NPPA (CDFG Code Section 1900 et seq.).
- Plants considered by the CNPS to be “rare, threatened, or endangered in California” (Lists 1 and 2) (CNPS 2025a).
- Plants listed by the CNPS as plants about which more information is needed to determine their status and plants of limited distribution (California Rare Plant Rank [CRPR] 3 and 4) that may be included on the basis of local significance or recent biological information (CNPS 2025a).
- Animal species of special concern as listed by the CDFW (2025a).
- Animals fully protected in California (CDFG Code Sections 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]).
- Invertebrates listed on the California Special Animals List (CDFW 2025b).
- Species designated as sensitive by the BLM (BLM 2014).

Potential for occurrence of special-status species within the project site and the immediate vicinity was assessed following the database searches and field survey based on on-site habitat conditions. During the assessment, each species was assigned to one of the categories listed below:

- **Present:** Species has been documented within the project site by a reliable observer. The presence of bird species was distinguished further into those that 1) nest on the project site,

2) forage on the project site, and/or 3) occur on the project site only as transients during migratory flights or other dispersal events.

- **High Potential:** The species has been documented in the vicinity (within 5 miles of the project site based on recent [within 20 years] CNDDDB or other records or based on professional expertise specific to the area or species), and there is suitable habitat within the project site that makes the probability of the species occurring there high. Alternatively, there is suitable habitat within the project site and within the known range of the species. Bird species in this category were differentiated based on their occurrence within the project site as breeding, foraging only, and/or transients.
- **Moderate Potential:** Species is known to occur within the project site (based on non-historic [within 40 years] CNDDDB or other records or based on professional expertise specific to the area or species), and there is moderate quality habitat at the project site that makes the probability of the species occurring there moderate. Alternatively, there is moderate quality habitat in the part of the project site that falls within the known range of the species.
- **Low Potential:** The project site is within the species' currently known range, but vegetation communities, soils, etc. do not resemble those known to be used by the species; conditions appear suitable, but the project site is beyond the species' currently known range; or the species meets the criteria for moderate potential but records are over 40 years old.
- **Absent:** There is no suitable habitat for the species within the project site, or the area is located well outside the known range of the species. Alternatively, a species was surveyed for during the appropriate season with unequivocal negative results for species occurrence.

3.1.2 Special-Status Plant Communities

Sensitive vegetation communities are defined by the CDFW as those “communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of Projects” (CDFW 2018). Vegetation communities with a State Rank of 1, 2, and 3 are considered special-status by CDFW. The CDFW also maintains a list of associations that may be considered sensitive regardless of a listed State Rank (CDFW 2025c).

3.2 Field Surveys

3.2.1 Vegetation Mapping, Rare Plant and Wildlife Surveys

Rare plant, vegetation mapping, and wildlife surveys for the project site were conducted on May 1–5, 2023, by SWCA biologists Mason Townley and Gigi Wagnon, and May 8–9, 2023, by SWCA biologists Mason Townley and Tamara Kramer. The purpose of the surveys was to characterize the existing biological conditions, to search for special-status plants, animals, and habitats, and to map habitats. For this report, the study area included the 267-acre proposed project site, and a 150-meter buffer (approximately 190.53 acres) (see Figure 2). The surveys were conducted according to the survey guidelines in the Staff Report on Burrowing Owl Mitigation (CDFW 2012), the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018), and the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (USFWS 2000). Vegetation and habitat mapping were conducted through desktop research prior to the site visit and verified in the field during the reconnaissance-level field survey and rare plant surveys. Vegetation communities were classified using *A Manual of California Vegetation (MCV)*, Online Edition (CNPS 2025b). Potentially sensitive associations on-site were reviewed by referencing the California Natural Community List (CDFW

2025c). Vegetation communities and land cover types were mapped using a minimum mapping unit of 1 acre. Sensitive communities or other special habitats were mapped at 0.2 acre.

Taxonomic conventions for flora followed The Jepson Manual: Vascular Plants of California, Second Edition (Baldwin et al. 2012), and Jepson eflora (Jepson Flora Project 2025). Naming conventions for fauna followed those listed in the CNDDDB, the American Ornithological Society's Check-list of North American Birds (Chesser et al. 2022), and the Peterson Field Guide to Western Reptiles & Amphibians (Stebbins and McGinnis 2018).

The surveys were conducted between 6:30 a.m. and 4:00 p.m. PST. Conditions were sunny, hot, and windy, with temperatures that ranged between 61 and 95 degrees Fahrenheit (°F) and wind speed ranging from 4 to 34 miles per hour. The project site was accessible by vehicle and surveyed on foot using 20-meter belt transects. Wildlife observations were made directly and aided using binoculars or through sign including tracks, scat, and remains. Vegetation communities, water resources, and incidental observations of sensitive species were mapped using GPS units with sub-meter accuracy. During the site visit, all observed flora and fauna were noted. The species list can be found in Appendix A, and representative photographs can be found in Appendix B. The results of the survey have been incorporated into this report.

4 RESULTS

4.1 Regional Setting

The project is located within the northern Colorado Desert, a subdivision of the Sonoran Desert. The Colorado Desert encompasses nearly 7 million acres across southeastern California, southwestern Arizona, parts of the Baja California peninsula in Mexico, the islands of the Gulf of California, and a substantial area of Sonora, Mexico. The region's topography features a combination of basins, mountain ranges, and desert plains. It is characterized by its lower elevation compared to the surrounding Mojave and Sonoran Deserts, with most of the Colorado Desert situated below 1,000 feet above sea level. The desert is bounded by the San Bernardino Mountains to the north, the Peninsular Ranges to the west, the United States-Mexico border to the south, and the Colorado River to the east separating it from the Sonoran Desert. The Colorado River allows for the development of riparian areas in the otherwise arid Colorado Desert, supporting diverse plant and animal life. The Salton Sea, situated within the Colorado Desert 12 miles northeast of the project site, is a 343-square-mile anthropocentrically influenced lake that is known for its high salinity levels, which have increased over time due to evaporation and agricultural runoff from surrounding areas. The shores of the Salton Sea are often lined with marshes, reeds, and other wetland vegetation providing critical habitat for migratory birds. The combination of a warm climate and access to water from the Colorado River supports extensive agricultural activities in the area. This area of the Colorado Desert includes various crops including dates, citrus fruits, grapes, and alfalfa, all of which benefit from irrigation from the Colorado River (Brown 1994).

This subdivision of the Sonoran Desert experiences arid conditions, with hot and dry weather prevailing for most of the year (Brown 1994). The Colorado Desert's unique combination of desert plains, mountain ranges, proximity to the Colorado River, and the presence of the Salton Sea creates a rich and diverse ecosystem. It supports a wide range of plant and animal life adapted to the arid conditions, including desert-adapted vegetation such as the branched pencil cholla (*Cylindropuntia ramosissima*), brittlebush (*Encelia farinosa*), ocotillo (*Fouquieria splendens*), creosote bush (*Larrea tridentata*), and blue palo verde (*Parkinsonia florida*).

4.2 Regional Climate and Weather

The Colorado Desert is characterized by hot summer temperatures (average daily highs above 100°F, often reaching 120°F) with minimal drops in temperature at night compared to high-elevation deserts. Winter daytime temperatures range from 60 to 70°F with rare occurrences of frost overnight. The Colorado Desert has two distinct rainy periods per year (winter and late summer) with low annual precipitation (approximately 2–5 inches) (Schoenherr 2017).

Deserts in general are defined by low levels of precipitation, and the Colorado Desert's location east of the Peninsular Ranges limits the inflow of coastal air and precipitation, contributing to the overall arid climate. Other weather events, such as remnants of Pacific hurricanes, storms from the southern tropical jetstream, and the northern intertropical convergence zone, can occasionally bring moisture from the Gulf of California and cause summer monsoons in the region (Schoenherr 2017).

4.3 Site Conditions

The project site is largely disturbed from past agricultural activities and is interspersed with a sparse coverage of shrubs typical of the Colorado Desert. Desert plant communities in the vicinity of the project site have been subject to anthropogenic disturbances. The areas immediately surrounding the project site in all directions consist of open space, with U.S. Route 78 located approximately 0.4 mile north of the project site. Adjacent land uses include the Ocotillo Wells OHV State Recreation Area to the north, Solar Power Panels Power Plant to the east, and vacant land, Tarantula Wash, and San Felipe Creek to the south and west. The project is approximately 0.5 mile east of the Ocotillo RV Resort. Crop rows are present throughout the project site, due to the land being previously used for date palm (*Phoenix dactylifera*) cultivation. In addition, two-track roads, recent tire tracks, and other indications of off-road vehicle traffic were present.

4.4 Local and Regional Conservation Plans

There are no state or local parks, designated wildlife corridors, or state or federally designated conservation areas overlapping the study area. Similarly, there is no USFWS-designated critical habitat (USFWS 2025b) or habitat conservation plan, and no CDFW Natural Community Conservation Plan (CDFW 2025d) at or adjacent to the project site. Desert pupfish critical habitat is approximately 3.3 miles southeast of the project site.

4.5 Vegetation Communities

Five vegetation communities and land cover types were identified in the project site: Fourwing Saltbush Scrub (*Atriplex canescens* Shrubland Alliance), Creosote Bush Scrub (*Larrea tridentata* Shrubland Alliance), Tamarisk Thickets (*Tamarix* spp. Shrubland Semi-Natural Alliance), Disturbed – Fallow Agriculture, and Developed (Table 2, Figure 4). Vegetation communities in this section are presented in alphabetical order by scientific name.

In general, vegetation on-site is largely degraded in part due to past agricultural activities. Much of the project site consists of a furrowed landscape while other areas completely devoid of vegetation. Artificial berms which, at one-point, supported agricultural ditches also bisect the site. These berms are largely dominated by non-native tamarisk (*Tamarix* sp.). Natural habitat consisting of Creosote Bush Scrub is largely restricted to the northwestern portion of the project site.

Table 2. Vegetation Communities and Land Cover Types

Vegetation Community	Approximate Acres within the Project Site [†]	Approximate Acres within the 150-meter Buffer Area [†]	Global Rarity Rank [†]	State Rarity Rank [‡]
Fourwing Saltbush Scrub <i>Atriplex canescens</i> Shrubland Alliance	39.69	13.68	G5	S4
Creosote Bush Scrub <i>Larrea tridentata</i> Shrubland Alliance	180.92	141.68	G5	S5
Tamarisk Thickets <i>Tamarix</i> spp. Shrubland Semi-Natural Alliance	3.27	1.38	GNA	SNA
Disturbed – Fallow Agriculture	39.69	20.32	N/A	N/A
Developed	3.61	13.47	N/A	N/A
Total	267.18	190.53		

Source: CNPS (2025b); CDFW (2025c)

[†] Disturbed and undisturbed vegetation alliances were mapped separately as shown in Figure 4; acres here include both.

[†]Global Rank (NatureServe 2025):

G5 = Demonstrably secure because of its worldwide/statewide abundance.

GNA = Not Applicable — A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities. A global conservation status rank may be not applicable for several reasons, related to its relevance as a conservation target. For species, typically the species is a hybrid without conservation value, or of domestic origin. For ecosystems, the type is typically non-native (e.g., many ruderal vegetation types), agricultural (e.g., pasture, orchard) or developed (e.g., lawn, garden, golf course).

[‡]State Rank (NatureServe 2025):

S3 = 21–100 viable occurrences worldwide/statewide, and/or more than 6,400–32,000 acres

S4 = Over 100 viable occurrences worldwide/statewide, and/or more than 32,000 acres

S5 = Demonstrably secure because of its worldwide/statewide abundance

SNA = Not Applicable — A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities. A global conservation status rank may be not applicable for several reasons, related to its relevance as a conservation target. For species, typically the species is a hybrid without conservation value, or of domestic origin. For ecosystems, the type is typically non-native (e.g., many ruderal vegetation types), agricultural (e.g., pasture, orchard) or developed (e.g., lawn, garden, golf course).

4.5.1 **Fourwing Saltbush Scrub (*Atriplex canescens* Shrubland Alliance)**

Fourwing Saltbush Scrub is characterized by an open or intermittent canopy dominated by fourwing saltbush (*Atriplex canescens*) with a variable layer of seasonal herbs and non-native grasses. The alliance is typically found on playas, old beaches and shores, lake deposits, dissected alluvial fans, and rolling hills. Soils may be carbonate rich, alkaline, sandy, or sandy clay loams. In addition to fourwing saltbush, other species in this alliance include white bursage (*Ambrosia dumosa*), creosote bush, and Sahara mustard (*Brassica tournefortii*). Fourwing Saltbush Scrub was found prominently in the project site on fallow agricultural land. Because these areas still retain rows of furrows from past agricultural activity, the entirety of the mapped Fourwing Saltbush Scrub found on-site is considered disturbed.

Fourwing Saltbush Scrub is not considered a sensitive community and no sensitive associations were identified on-site. Approximately 39.69 acres of the project site and 13.68 acres of the 150-meter buffer have been classified as disturbed Fourwing Saltbush Scrub.

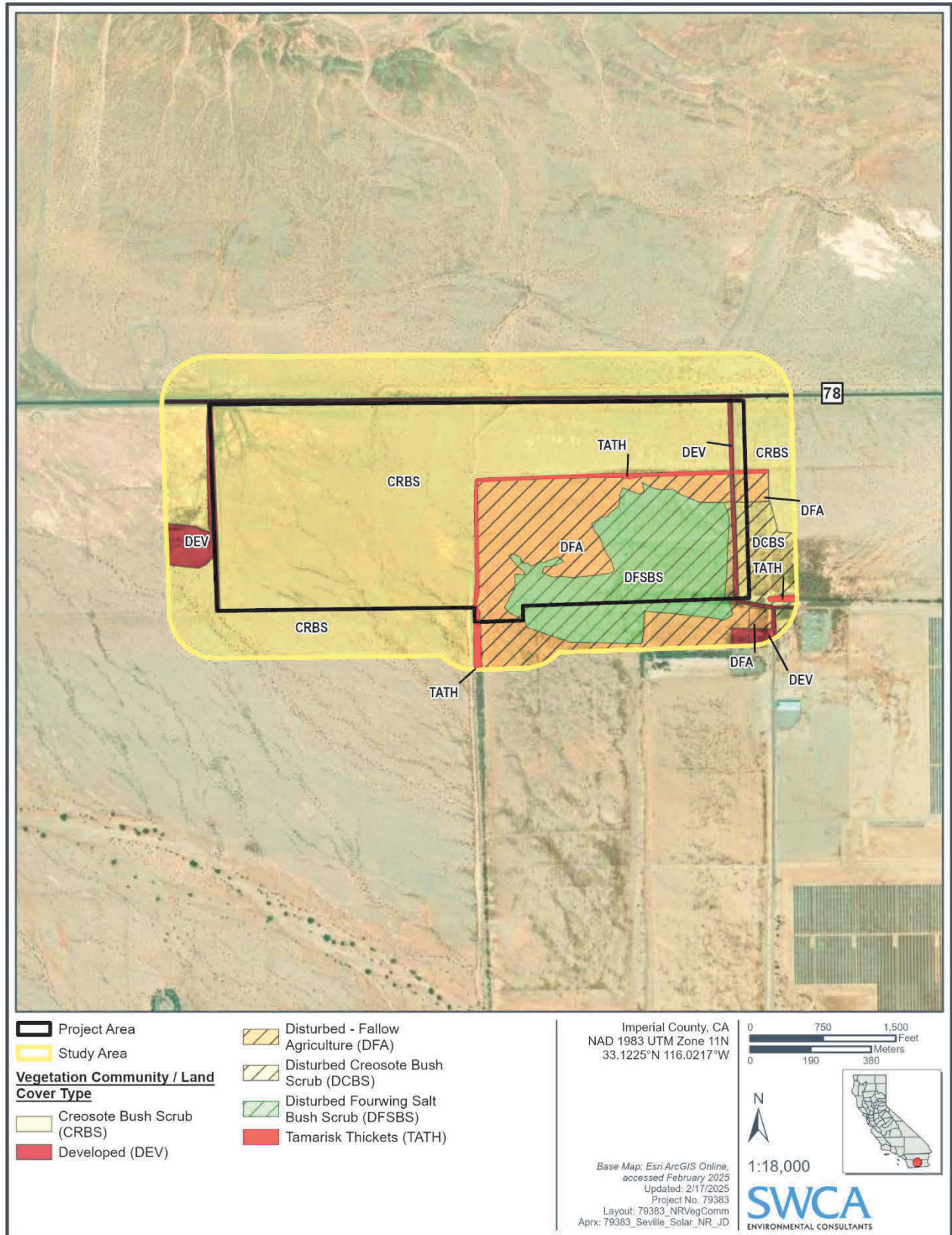


Figure 4. Vegetation community and land cover type map.

4.5.2 Creosote Bush Scrub (*Larrea tridentata* Shrubland Alliance)

Creosote Bush Scrub is characterized by an open to intermittent canopy dominated by creosote bush with an open to intermittent herbaceous layer consisting of seasonal annuals or perennial grasses. The alliance is typically found on alluvial fans, bajadas, upland slopes and along minor intermittent washes. Soils typically are well-drained. In the project site, creosote bush is dominant with fourwing saltbush, spiny saltbush (*Atriplex confertifolia*), honeysweet (*Tidestromia suffruticosa*), and desert sandmat (*Euphorbia polycarpa*). Stands of Creosote Bush Scrub were found mostly in the northern and northwestern limits of the project site. These areas were largely unaffected by past agricultural activities. A portion in the northeastern limits was classified as disturbed Creosote Bush Scrub due to the rows of furrows.

Creosote Bush Scrub is not considered a sensitive community, and no sensitive associations were identified on-site. Approximately 180.92 acres of the project site and 141.68 acres of the 150-meter buffer have been classified as both Creosote Bush Scrub and disturbed Creosote Bush Scrub.

4.5.3 Tamarisk Thickets (*Tamarix* spp. Shrubland Semi-Natural Alliance)

Tamarisk Thickets is characterized by a continuous or open shrub canopy consisting of tamarisk (*Tamarix ramosissima*) or other *Tamarix* species with a sparse herbaceous layer. The alliance is found near arroyo margins, lake margins, ditches, washes, rivers, and other watercourses. In the project site, the alliance is present as narrow bands of athel (*Tamarix aphylla*). These were likely planted and served as windbreaks along agricultural ditches and irrigation lines that once supported the agricultural operations that existed on-site. Additionally, Tamarisk Thickets were mapped in the southwestern portion of the study area buffer that overlaps with San Felipe Creek.

Tamarisk Thickets are largely composed of non-native species including tamarisk, and therefore are not a suitable target for conservation by the CDFW. Approximately 3.27 acres of the project site and 1.38 acres of the 150-meter buffer have been classified as Tamarisk Thickets.

4.5.4 Disturbed – Fallow Agriculture

This land cover type consists of former cropland that still retains the furrows graded into during past agricultural operations. These areas now support a variety non-native plant species including Russian thistle (*Salsola tragus*) and Sahara mustard, among other ruderal species. This landcover type also covers areas in the project site that are unfurrowed but are generally devoid of vegetation due to the past agricultural operations. These areas do not adhere to any rules defined in the MCV. A majority of the project site has been identified as Disturbed – Fallow Agriculture.

Approximately 39.69 acres of the project site and 20.32 acres of the 150-meter buffer have been classified as Disturbed – Fallow Agriculture land cover type.

4.5.5 Developed

This land cover type is a descriptor for areas mostly devoid of vegetation due to anthropogenic activities and that have little to no potential to support native species. Developed areas may include roads, buildings, and parking lots. At the project site, paved and unimproved roads, road shoulders, solar arrays, substations, and other structures were mapped as Developed.

Approximately 3.61 acres of the project site and 13.47 acres of the study area buffer have been classified as Developed land cover type.

4.5.6 Special-Status Plant Communities

No special-status plant communities or associations were identified in the project site.

4.6 Plants

A total of 42 plant species were observed during the field surveys conducted in May 2023. In general, conditions during the surveys were normal for this time of year. Many of the annual plant species had seeded at the time of survey. Because of this, several annual plants could not be identified due to the lack of diagnostic characteristics such as leaves and flowers. Rainfall totals as of May 2023 for Borrego Springs Desert State Park, California (nearest reporting station), were 6.09 inches, well above the average of 4.14 inches for a typical rain year (National Oceanic and Atmospheric Administration 2023). Native plant species frequently encountered were creosote bush, fourwing saltbush, and spiny saltbush. Commonly encountered forbs include whitemargin sandmat (*Euphorbia albomarginata*) and the non-native Sahara mustard. Many of the remaining forbs observed were generally found in low abundances. A full list of plant species observed can be found in Appendix A.

4.6.1 Special-Status Plants

In total, 32 species were identified during the desktop review of the CNDDDB and CNPS databases (Table 3). Of these species, 15 were determined to have potential to occur within the project site. Sand food (*Pholisma sonorae*) and flat-seeded spurge (*Euphorbia platysperma*) were new additions in the 2025 desktop analysis but do not have potential to occur on-site. No special-status plants were observed during the survey.

Because most of the annual and perennial plants found on-site had seeded, several species with potential to occur could not be conclusively determined to be absent due to the lack of diagnostic characteristics. However, several rare shrubs and tree species can be identified even outside of their respective blooming period; these species were conclusively determined to be absent from the site based on the field survey results. The results of the rare plant survey were used to inform the presence/absence determinations of each species with potential to occur at the project site, along with the habitat, soil types, and vegetation communities observed on-site.

Table 3. Potential to Occur for Special-Status Plants at the Project Site

Common Name Scientific Name	Status*	Range or Habitat Requirements†	Potential to Occur in the Project site
Salton milk-vetch <i>Astragalus crotalariae</i>	CRPR 4.3	This perennial herb is found in gravelly or sandy soils within Sonoran desert scrub. Elevational Range: 60 meters below mean sea level (bmsl) to 250 meters above mean sea level (amsl). Blooming Period: January-April.	High. The project site occurs within the known range of this species and the nearest record is less than 1 mile away at the Seville 4 project site. Suitable habitat is located within the project site, and this species was documented in the survey area for Seville 4.
Sand food <i>Pholisma sonorae</i>	CRPR 1B.2, BLM_S	This perennial herb is found in desert dunes and Sonoran desert scrub with sandy soils. Elevational Range: 0-655 meters amsl. Blooming Period: March-June.	Absent. The project site falls outside the known elevational range of this species and the nearest record is approximately 10 miles north of the project site. Desert dunes habitat is not present within the project site.

Common Name Scientific Name	Status*	Range or Habitat Requirements†	Potential to Occur in the Project site
Flat-seeded spurge <i>Euphorbia platysperma</i>	CRPR 1B.2, BLM_S	This annual herb is found in desert dunes and Sonoran desert scrub with sandy soils. Elevational Range: 65-330 meters amsl. Blooming Period: February-September.	Absent. The project site falls outside the known elevational range of this species and the nearest record is approximately 10 miles north of the project site. Desert dunes habitat is not present within the project site.
Harwood's milk-vetch <i>Astragalus insularis</i> var. <i>harwoodii</i>	CRPR 2B.2	This annual herb is found in gravelly or sandy soils within Mojavean desert scrub and desert dunes. Elevation: 0-710 meters amsl. Blooming Period: January-May.	Moderate. The project site occurs within the known range of this species and the nearest record is approximately 5 miles south of the project site. Suitable habitat is potentially located within the project site.
Borrego milk-vetch <i>Astragalus lentiginosus</i> var. <i>borreganus</i>	CRPR 4.3	This annual herb is found in sandy flats and stabilized dunes within Mojavean desert scrub and Sonoran desert scrub. Elevational Range: 30-2,895 meters amsl. Blooming Period: February-May.	Low. The project site occurs slightly below the known elevation of this species. The nearest record is approximately 5.7 miles northwest of the project site. Suitable habitat is not likely to occur within the project site.
Peirson's milk-vetch <i>Astragalus magdalenae</i> var. <i>peirsonii</i>	CRPR 1B.2, FT, SE	This perennial herb is found in desert dunes. Elevational Range: 60-225 meters amsl. Blooming Period: December-April.	Absent. The project site falls outside the known elevational range of this species and the nearest record is approximately 10 miles northwest of the project site. Desert dunes habitat is not present within the project site.
Gravel milk-vetch <i>Astragalus sabulorum</i>	CRPR 2B.2	This annual/perennial herb is found predominantly in sandy soils, occasionally in gravelly soils in desert dunes, Mojavean desert scrub, or Sonoran desert scrub. Elevational Range: 60 meters bmsl to 930 meters amsl. Blooming Period: February-June.	Moderate. The project site occurs within the known range of this species and the nearest record is approximately 3.3 miles southeast of the project site. Suitable habitat is potentially located within the project site.
Little-leaf elephant tree <i>Bursera microphylla</i>	CRPR 2B.3	This perennial deciduous tree is found in rocky soils in Sonoran desert scrub. Elevational Range: 200-700 meters amsl. Blooming Period: June-July.	Absent. The project site does not fall within the known elevational range of this species; however, the nearest record is approximately 6 miles southwest of the project site. The species is a perennial tree and would be detected even outside of the appropriate blooming period.
Pink fairy-duster <i>Calliandra eriophylla</i>	CRPR 2B.3	This perennial deciduous shrub is found in rocky or sandy soils within Sonoran desert scrub. Elevational Range: 120-1,500 meters amsl. Blooming Period: January-March.	Absent. The project site does not fall within the known elevational range of this species; however, the nearest record is approximately 10 miles southwest of the project site. There is no suitable habitat within the project site.
Peirson's pincushion <i>Chaenactis carphoclinia</i> var. <i>peirsonii</i>	CRPR 1B.3, BLM_S	This annual herb is found in sandy soils within Sonoran desert scrub. Elevational Range: 3-500 meters amsl. Blooming Period: March-April	Moderate. The project site occurs within the known range of this species and the nearest record is approximately 0.6 mile west of the project site. Suitable habitat is potentially present within the project site.
Pink teddy-bear cholla <i>Cylindropuntia fosbergii</i>	CRPR 1B.3, BLM_S	This perennial stem is found in loam or bedrock soils in Sonoran desert scrub. Elevational Range: 85-850 meters amsl. Blooming Period: March-May	Absent. The project site falls outside the known elevational range of this species and the nearest record is approximately 10 miles west of the project site. Only silver cholla (<i>Cylindropuntia echinocarpa</i>) was detected on-site.
Wolf's cholla <i>Cylindropuntia wolfii</i>	CRPR 4.3	This perennial stem is found in loam or bedrock soils in Sonoran desert scrub. Elevational Range: 100-1,200 meters amsl. Blooming Period: March-May	Absent. The project site falls outside the known elevational range of this species and the nearest record is approximately 13 miles west of the project site. Only silver cholla was detected on-site.

Common Name Scientific Name	Status*	Range or Habitat Requirements†	Potential to Occur in the Project site
Colorado Desert larkspur <i>Delphinium parishii</i> ssp. <i>subglobosum</i>	CRPR 4.3	This perennial herb is found in chaparral, cismontane woodland, pinyon and juniper woodland, and Sonoran desert scrub. Elevational Range: 600-1,800 meters amsl. Blooming Period: March-June	Absent. The project site falls outside the known elevational range of this species and the nearest record is approximately 15 miles west of the project site. There is no suitable habitat in the project site.
California ditaxis <i>Ditaxis serrata</i> var. <i>californica</i>	CRPR 3.2	This perennial herb is found in Sonoran desert scrub. Elevational Range: 30-1,000 meters amsl. Blooming Period: March-December	Low. The project site occurs within the known range of this species and the nearest record is approximately 6.1 miles southwest of the project site. Marginally suitable habitat is potentially located within the project site.
Harwood's eriastrum <i>Eriastrum harwoodii</i>	CRPR 1B.2, BLM_S	This annual herb is found in desert dunes. Elevational Range: 125-915 meters amsl. Blooming Period: March-June	Absent. The project site falls outside the known elevational range of this species and the nearest record is approximately 5.3 miles south of the project site. There is no suitable sandy dune habitat within the project site.
Abrams' spurge <i>Euphorbia abramsiana</i>	CRPR 2B.3	This annual herb is found in sandy soils in Sonoran and Mojavean desert scrub. Elevational Range: 5 meters bmsl to 1,310 meters amsl. Blooming Period: September to November.	High. The project site occurs within the known range of this species and the nearest record is approximately 0.8 mile east and west of the project site. Suitable habitat is present within the project site.
Newberry's velvet-mallow <i>Horsfordia newberryi</i>	CRPR 4.3	This perennial shrub is found in rocky soils in Sonoran desert scrub. Elevational Range: 3-800 meters amsl. Blooming Period: February to December	Low. The project site occurs within the known range of this species and the nearest record is approximately 6 miles southwest of the project site. Suitable habitat is potentially located within the project site.
Ribbed cryptantha <i>Johnstonella costata</i>	CRPR 4.3	This annual herb is found in sandy soils desert dunes, Mojavean desert scrub, and Sonoran desert scrub. Elevational Range: 60 meters bmsl to 500 meters amsl. Blooming Period: February to May.	High. The project site occurs within the known range of this species and the nearest record is approximately 0.2 mile north of the project site. Suitable habitat is present within the project site.
Winged cryptantha <i>Johnstonella holoptera</i>	CRPR 4.3	This annual herb is found in sandy soils and desert dunes, Mojavean desert scrub, and Sonoran desert scrub. Elevational Range: 100-1,690 meters amsl. Blooming Period: March to April.	Low. The project site falls outside the known elevational range of this species. The nearest record is approximately 7.4 miles southwest of the project site. Suitable habitat is potentially located within the project site.
Cooper's rush <i>Juncus cooperi</i>	CRPR 4.3	This perennial herb is found in mesic, alkaline, or saline soils in meadows and seeps. Elevational Range: 260 meters bmsl to 1,770 meters amsl. Blooming Period: April-May	Absent. The project site does not contain meadows or seeps and the nearest record is approximately 10 miles south of the project site. No alkaline seeps or other mesic sites were detected on-site.
Mountain Springs bush lupine <i>Lupinus albifrons</i> var. <i>medius</i>	CRPR 1B.3, BLM_S	This perennial shrub is found in pinyon and juniper woodland, and Sonoran desert scrub. Elevational Range: 425-1,370 meters amsl. Blooming Period: March-May	Absent. The project site falls outside the known elevational range of this species, and the nearest record is approximately 13.2 miles east of the project site. There is no suitable habitat in the project site.
Parish's desert-thorn <i>Lycium parishii</i>	CRPR 2B.3	This perennial shrub is found in coastal scrub and Sonoran desert scrub. Elevational Range: 135-1,000 meters amsl. Blooming Period: March-April.	Absent. The project site falls outside the known elevational range of this species, and the nearest record is approximately 11.2 miles northwest of the project site. Suitable habitat is not likely to occur within the project site. No box-thorn species (<i>Lycium</i> spp.) were detected on-site.

Common Name Scientific Name	Status*	Range or Habitat Requirements†	Potential to Occur in the Project site
Torrey's box-thorn <i>Lycium torreyi</i>	CRPR 4.2	This perennial shrub is found in rocky, sandy, streambanks, washes in Sonoran and Mojavean desert scrub. Elevational Range: 50 meters bmsl to 1,200 meters amsl. Blooming Period: (January-February) March-June (September-November)	Low. The project site occurs within the known range of this species and the nearest record is approximately 9 miles east of the project site. Suitable habitat is potentially located within the project site. No box-thorn species were detected on-site.
Palmer's lyrepod <i>Lyrocarpa coulteri</i>	CRPR 4.3	This perennial shrub is found in gravelly and rocky soils in Sonoran desert scrub. Elevational Range: 120-795 meters amsl. Blooming Period: December-April.	Absent. The project site falls outside the known elevational range of this species, and the nearest record is approximately 5.3 miles south of the project site. There is no suitable habitat on-site.
Brown turbans <i>Malperia tenuis</i>	CRPR 2B.3	This annual herb is found in rocky slopes and sandy soils in Sonoran desert scrub. Elevational Range: 15-335 meters amsl. Blooming Period: March-April.	Low. The project site occurs within the known range of this species and the nearest record is approximately 5.8 miles southwest of the project site. Suitable habitat is not likely to occur within the project site.
Hairy stickleaf <i>Mentzelia hirsutissima</i>	CRPR 2B.3	This annual herb is found in washes, fans, slopes; coarse rubble and talus slopes in Sonoran desert scrub. Elevational Range: 0-700 meters amsl. Blooming Period: March-May.	Absent. The project site does not contain soils suitable to support this species. The nearest record is approximately 5.9 miles southwest of the project site. Suitable habitat is not present within the project site.
Wiggins' cholla <i>Opuntia wigginsii</i>	CRPR 3.3	This perennial stem is found in sandy soils in Sonoran desert scrub. Elevational Range: 30-885 meters amsl. Blooming Period: March	Absent. The project site occurs within the known range of this species and the nearest record is in the quad adjacent to the project site (non-specific location), but the project location falls below the known elevational range of this species. This species is a poorly defined hybrid between silver cholla and pencil cholla (<i>Cylindropuntia ramosissima</i>). Only silver cholla was detected on-site.
Narrow-leaf sandpaper-plant <i>Petalonyx linearis</i>	CRPR 2B.3	This perennial shrub is found in rocky and sandy soils in canyons in Sonoran and Mojavean desert scrub. Elevational Range: 25 meters bmsl to 1,115 meters amsl. Blooming Period: (January-February) March-May (June-December)	Absent. The project site does not contain suitable topography to support this species and the nearest record is approximately 15.1 miles west of the project site. Suitable habitat is not present on-site.
Thurber's pilostyles <i>Pilostyles thurberi</i>	CRPR 4.3	This perennial herb (parasitic) is found in Sonoran desert scrub. Parasite on indigo bush species (<i>Psoralea</i> spp.) especially Emory's indigo bush (<i>P. emoryi</i>). Elevational Range: 0-365 meters amsl. Blooming Period: December-April	High. The project site occurs within the known range of this species and the nearest record is approximately 1.5 miles east of the project site. Suitable habitat is present within the project site. Emory's indigo bush was detected on-site.
Desert unicorn-plant <i>Proboscidea althaeifolia</i>	CRPR 4.3	This perennial herb is found on gently sloping sandy flats and washes, sometimes on roadsides, in Sonoran desert scrub. Elevational Range: 85-1,000 meters amsl. Blooming Period: May-September.	Low. The project site falls outside the known elevational range of this species and the nearest record is approximately 8.2 miles west of the project site. Suitable habitat is not likely to occur within the project site.
Desert spike-moss <i>Selaginella eremophila</i>	CRPR 2B.2	This perennial rhizomatous herb is found in gravelly and rocky soils in chaparral and Sonoran desert scrub. Elevational Range: 200-1,295 meters amsl. Blooming Period: May-July	Absent. The project site falls outside the known elevational range of this species, and the nearest record is approximately 13.5 miles west of the project site. There is no suitable habitat in the project site.

Common Name Scientific Name	Status*	Range or Habitat Requirements†	Potential to Occur in the Project site
Orcutt's woody-aster <i>Xylorhiza orcuttii</i>	CRPR 1B.2, BLM_S	This perennial herb is found in arid canyons, barren slopes in creosote bush scrub. Elevational Range: 0-365 meters amsl. Blooming Period: March-April	Low. The project site occurs within the known range of this species, and the nearest record is approximately 8.8 miles west of the project site. Suitable habitat is not likely to occur within the project site.

*Status Codes:

Federal Status:

FE = Federally Listed Endangered

BLM_S = BLM Sensitive Species

California State Status:

SE = California State-Listed Endangered

SCR = California State-Listed Rare

SC = State Candidate for Listing

California Rare Plant Ranking:

1B = Plants rare, threatened, or endangered in California and elsewhere

2B = Plants rare, threatened, or endangered in California, but more common elsewhere

3 = Plants about which more information is needed

4 = Plants with a limited distribution, watch list

0.1 = Seriously threatened in California

0.2 = Moderately threatened in California

0.3 = Not very threatened in California

†The habitat descriptions and blooming periods are directly from the CNDDDB database and/or CNPS.

4.6.1.1 SALTON MILK-VETCH

Salton milk-vetch (*Astragalus crotalariae*) is a CRPR 4.3 perennial herb found in the Sonoran Desert in California, southwestern Arizona, and northern Baja California. The blooming Period for this species is between January and April. The species occurs in sandy or gravelly soil associated with plains, valley floors, washes, and fans in the foothills of desert mountains or on open desert in Sonoran desert scrub at elevations between 60 meters below mean sea level (bmsl) and 250 meters amsl. The nearest CCH record (CCH 2025), from 1949, occurred approximately 3 miles east of the project site. The species was not observed within the survey area for Seville 5. However, a total of 18 individual plants were identified in southwestern portion of the Seville 4 project site, and therefore, there is high potential for this species to occur on-site.

4.6.1.2 HARWOOD'S MILK-VETCH

Harwood's milk-vetch (*Astragalus insularis* var. *harwoodii*) is a CRPR 2B.2 annual herb found in California, Arizona, and Sonora, Mexico. The blooming period for this species is between January and May. The species occurs in open sandy flats and sandy or stony desert washes in creosote bush scrub and desert dunes at elevations between 0 and 710 meters amsl. The species is threatened by vehicles and solar energy development. The CNDDDB shows a 1933 occurrence located 6.2 miles southwest of the project site. Suitable habitat is located within the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. Harwood's milk-vetch has a moderate potential to occur on-site.

4.6.1.3 BORREGO MILK-VETCH

Borrego milk-vetch (*Astragalus lentiginosus* var. *borreganus*) is a CRPR 4.3 annual herb known from California, Arizona, Baja California, and Sonora, Mexico. The blooming period for this species is between February and May. Borrego milk-vetch occurs in sandy flats and stabilized dunes in Mojavean desert scrub and Sonoran desert scrub at elevations between 30 and 2,895 meters amsl. The CCH shows a 2004 occurrence approximately 5.7 miles northwest of the project site. Marginally sandy habitat is located within the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. Borrego milk-vetch has a low potential to occur on-site.

4.6.1.4 GRAVEL MILK-VETCH

Gravel milk-vetch (*Astragalus sabulonum*) is a CRPR 2B.2 annual herb known from California, Nevada, New Mexico, Utah, and Sonora, Mexico. The blooming period for this species is between February and

June. Gravel milk-vetch occurs in sandy or gravelly flats, washes, and disturbed sites in desert dunes, Mojavean desert scrub, and Sonoran desert scrub at elevations between 60 meters bmsl and 885 meters amsl. The species is threatened by urbanization, vehicles, road widening, non-native plants, flood control projects, and wind energy development. The CNDDDB shows a 1980 occurrence located approximately 3.3 miles east of the project site. Suitable habitat is located within the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. Gravel milk-vetch has a moderate potential to occur on-site.

4.6.1.5 PEIRSON'S PINCUSHION

Peirson's pincushion (*Chaenactis carphoclinia* var. *peirsonii*) is a CRPR 1B.3 and BLM sensitive annual herb that is endemic to California near the eastern Santa Rosa Mountains. The blooming period for this species is between March and April. Peirson's pincushion occurs in open, rocky or sandy sites in Sonoran desert scrub at elevations between 3 and 500 meters amsl. The species is possibly threatened by off-road vehicle (ORV) activity. The CNDDDB shows a 1935 occurrence approximately 0.6 mile west of the project site. Suitable habitat is generally present within the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. Peirson's pincushion has a moderate potential to occur on-site.

4.6.1.6 CALIFORNIA DITAXIS

California ditaxis (*Ditaxis serrata* var. *californica*) is a CRPR 3.2 perennial herb that is known from California and Sonora, Mexico. The blooming period for this species is between March and December. California ditaxis occurs on sandy washes and alluvial fans of the foothills and lower desert slopes in Sonoran desert scrub at elevations between 30 and 1,000 meters amsl. The species is threatened by vehicles, development, and ORV activity. The nearest CNDDDB occurrences are located approximately 32 miles north near the Orocochia Mountains. The CCH, however, shows an occurrence 6.1 miles southeast of the project site. Suitable habitat is potentially located within the washes located within the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. California ditaxis has a low potential for occurrence.

4.6.1.7 ABRAMS' SPURGE

Abrams' spurge (*Euphorbia abramsiana*) is a CRPR 2B.3 annual herb found in California, Arizona, Nevada, Baja California, and Sonora, Mexico. The blooming period for this species is between September and November. Abrams' spurge occurs in sandy sites in Sonoran desert scrub and Mojavean desert scrub at elevations between 5 meters bmsl and 1,310 meters amsl. The species is threatened by vehicles, solar energy development, and non-native plants. The CNDDDB shows a 2012 occurrence approximately 0.8 mile east and west of the project site. Several additional occurrences are within 6 miles of the project site. Suitable habitat is present throughout the project site. This species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey; however, the species blooms after summer monsoon storms period. Abrams' spurge has a high potential for occurrence on-site.

4.6.1.8 NEWBERRY'S VELVET-MALLOW

Newberry's velvet-mallow (*Horsfordia newberryi*) is a CRPR 4.3 perennial herb found in California, Arizona, Baja California, and Sonora, Mexico. The blooming period for this species is February to December. Newberry's velvet-mallow occurs in rocky sites in Sonoran desert scrub at elevations between 3 and 800 meters amsl. The CCH shows a 2000 record approximately 6 miles southwest of the project site. Marginally suitable habitat is located within the washes identified in the project site, but this

species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. Newberry's velvet-mallow has a low potential to occur on-site.

4.6.1.9 RIBBED CRYPTANTHA

Ribbed cryptantha (*Johnstonella costata*) is a CRPR 4.3 annual herb found in California, Arizona, and Baja California, Mexico. The blooming period for the species is between February and May. Ribbed cryptantha occurs in fine sand deposits or coarser soils in Sonoran desert scrub, Mojavean desert scrub, or desert dunes at elevations between 60 meters bmsl and 500 meters amsl. The species is possibly threatened by development, vehicles, and non-native plants. Calflora shows a record approximately 0.2 mile north of the project site. The nearest CCH record is located 5.5 miles northwest of the project site. Suitable habitat is present within the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. *Johnstonella* species are difficult to identify due to their cryptic nature. However, narrow-leaved johnstenella (*J. angustifolia*) a common species in the Sonora Desert, was confirmed on-site. Ribbed cryptantha has a high potential to occur on-site.

4.6.1.10 WINGED CRYPTANTHA

Winged cryptantha (*Johnstonella holoptera*) is a CRPR 4.3 annual herb found in California, Arizona, Nevada, Baja California, and Sonora, Mexico. The blooming period for this species is between March and April. Winged cryptantha occurs in gravelly to rocky soils in washes and on slopes and ridges in Mojavean desert scrub and Sonoran desert scrub at elevations between 100 and 1,690 meters amsl. The species is potentially threatened by vehicles and development. The CCH shows a 2004 record approximately 8 miles southwest of the project site. Marginally suitable wash habitat is located within the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. *Johnstonella* species are difficult to identify due to their cryptic nature. However, narrow-leaved johnstenella, a common species in the Sonoran Desert, was confirmed on-site. Winged cryptantha has a low potential to occur on-site.

4.6.1.11 TORREY'S BOX-THORN

Torrey's box-thorn (*Lycium torreyi*) is a CRPR 4.2 perennial shrub found in California, Arizona, New Mexico, Texas, Utah, and Sonora, Mexico. The blooming period for this species is between March and June but sometimes as early as January. The species may bloom between September and November after summer monsoon storms. Torrey's box-thorn occurs in washes, streambanks, and desert valleys with sandy or rocky substates in Mojavean desert scrub and Sonoran desert scrub. The species is potentially threatened by solar energy development. The CCH shows a 2013 record approximately 9 miles east of the project site. Marginally suitable habitat is potentially located within the washes located in project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. The species is a perennial shrub but can be difficult to identify without diagnostic parts, including leaves and flowers. Torrey's box-thorn has a low potential to occur on-site

4.6.1.12 BROWN TURBANS

Brown turbans (*Malperia tenuis*) is a CRPR 2B.3 annual herb found in California and Baja California. The blooming period for this species is between March and April, but sometimes as early as February. Brown turbans occur in sandy or rocky places in Sonoran desert scrub at elevations between 15 and 335 meters amsl. The species is threatened by development, foot traffic, mining, non-native plants, and ORV activity. The CNDDDB shows a 1926 occurrence approximately 4.2 miles south of the project site. A more recent occurrence, from 2010, is located 6.2 miles southwest. Marginally suitable habitat is

potentially located in the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. Brown turbans has a low potential to occur on-site.

4.6.1.13 THURBER'S PILOSTYLES

Thurber's pilostyles (*Pilostyles thurberi*) is a CRPR 4.3 perennial herb (parasitic) found in Arizona Nevada, New Mexico, Texas, Baja California, and Sonora, Mexico. The blooming period for this species is between December and April. Thurber's pilostyles is parasitic on indigo bush species (*Psorothamnus* sp.), especially Emory's indigo bush (*Psorothamnus emoryi*), which occurs on sandy alluvial plains and sandstone talus at elevations between 0 and 365 meters amsl. The species is threatened by development and military operations. The CCH shows a 1998 occurrence approximately 2.6 miles east of the project site. Suitable habitat is present within the project site and Emory's indigo bush was observed on-site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. Thurber's pilostyles has a high potential to occur on-site.

4.6.1.14 DESERT UNICORN-PLANT

Desert unicorn-plant (*Proboscidea althaeifolia*) is a CRPR 4.3 perennial herb found in California, Arizona, New Mexico, Baja California, and Sonora, Mexico. The blooming period for the species is between March and September, sometimes as late as October. Desert unicorn-plant occurs on gently sloping sandy flats and washes, sometimes on roadsides in Sonoran desert scrub at elevations between 85 and 1,000 meters amsl. The species is potentially threatened by solar energy development and vehicles. The CCH shows a 1984 record approximately 8.2 miles northwest of the project site. Marginally suitable habitat is present within the washes located within the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. Desert unicorn-plant has a low potential to occur on-site.

4.6.1.15 ORCUTT'S WOODY-ASTER

Orcutt's woody-aster (*Xylorhiza orcuttii*) is a CRPR 1B.2 and BLM sensitive perennial herb found in California and Baja California. The blooming period for this species is between March and April. Orcutt's woody-aster occurs in arid canyons and washes in Sonoran desert scrub between 0 and 365 meters amsl. The species is threatened mostly by ORV activity. The CNDDDB shows a 1983 occurrence approximately 4.7 miles northwest of the project site. Marginally suitable desert wash habitat is located within the project site, but this species was not documented during the rare plant, wildlife, and vegetation and habitat mapping survey. Orcutt's woody-aster has a low potential to occur on-site.

4.7 Wildlife

Several species of wildlife typically found in Colorado Desert scrub regions were observed during the field surveys. Mammals observed include desert cottontail (*Sylvilagus auduboni*) and desert kangaroo rat (*Dipodomys deserti*). Signs of other mammal species observed include black-tailed jackrabbit (*Lepus californicus*), coyote (*Canis latrans*) (scat and an inactive potential den), and desert kit fox (*Vulpes macrotis arsipus*). The most commonly observed bird species observed include common raven (*Corvus corax*), horned lark (*Eremophila alpestris*), house finch (*Haemorhous mexicanus*), barn swallow (*Hirundo rustica*), Say's phoebe (*Sayornis saya*), and mourning dove (*Zenaida macroura*). Reptiles observed included desert iguana (*Dipsosaurus dorsalis*), flat-tailed horned lizard (*Phrynosoma mcallii*), western fence lizard (*Sceloporus occidentalis*), and common side-blotched lizard (*Uta stansburiana*). Appendix A provides a list of all wildlife detected during the field survey.

4.7.1 Wildlife Movement and Migratory Corridors

Wildlife movement corridors are defined on both a regional and a local basis. Regionally, the project site lies within a large area between the Fish Creek Mountains and the Salton Sea. This region of the Colorado Desert is generally open but fragmented by development. In the project site, there is development to the south, east, and north. This development forms barriers to movement and includes infrastructure, such as highways, housing developments, and solar facilities. These barriers inhibit the movement of some species that have limited home ranges or low dispersal ability and may reduce the movement of wideranging species such as American badger (*Taxidea taxus*), desert kit fox, and coyote. There are no terrain features such as canyons to concentrate wildlife movement.

On a local basis, the project site currently provides unrestricted terrestrial wildlife movement, as there are no fences or other obstructions to wildlife passage. Migratory birds may utilize the project site and vicinity for breeding, nesting, and foraging, or as transient rest sites during migration flights. However, there are no riparian habitats or water bodies with abundant resources to attract concentrations of birds. Desert kit fox, American badger, and coyote may travel across the project site in search of prey opportunities, and to access higher quality habitat in the area for both prey and cover.

4.7.2 Special-Status Wildlife

Based on the results of the literature and database review in 2023, 25 species of wildlife were found to have occurrences within the nine-quadrangle query area. In 2025, one additional species, LeConte’s thrasher (*Toxostoma lecontei*), returned in the database query and is included in the updated analysis. Although LeConte’s thrasher is listed as a BLM sensitive species, and a CDFW species of special concern, that special status is applicable only to the population in the San Joaquin Valley. Desert kit fox was also included due to its status as a California protected fur-bearer. Desert kit fox is not tracked in any database but is also known to be widespread throughout the Sonoran and Colorado Deserts. All species were evaluated for their potential to occur in the project site based on considerations of local records, habitat conditions, and environmental requirements (Table 4) (CDFW 2025a). After this assessment, six of the 26 species were determined to have low potential for occurrence, one was determined to have high potential, and two were determined to be present on-site.

Table 4. Potential to Occur for Special-Status Wildlife at the Project Site

Common Name Scientific Name	Status*	Range or Habitat Requirements†	Potential for Occurrence in Project Site
Invertebrates			
Monarch butterfly – California overwintering population <i>Danaus plexippus</i> pop. 1	FC	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus [<i>Eucalyptus</i> sp.], Monterey pine [<i>Pinus radiata</i>], cypress [<i>Cupressus sempervirens</i>]), with nectar and water sources nearby.	Absent. No roost sites present within the project site. There are no CNDDDB occurrences in the 9-quadrangle search query. The species appeared in the results of the IPaC query. However, individuals may be observed incidentally during migration and may forage on-site.
Fish			
Desert pupfish <i>Cyprinodon macularius</i>	FE, SE	Desert ponds, springs, marshes, and streams in southern California. Can live in salinities from freshwater to 68 parts per thousand; can withstand temps from 9 to 45 degrees Celsius and dissolved oxygen levels down to 0.1 parts per million.	Absent. Suitable habitat is not present within the project site. The nearest CNDDDB occurrence from 1994 and critical habitat for this species is approximately 3 miles southeast from the project site.

Common Name Scientific Name	Status*	Range or Habitat Requirements†	Potential for Occurrence in Project Site
Amphibians			
Lowland leopard frog <i>Lithobates yavapaiensis</i>	SSC, BLM_S	Found along the Colorado River and in streams near the Salton Sea.	Absent. Suitable habitat is not present within the project site. Nearest CNDDDB occurrence from 1938 is 4.5 miles southeast of the project.
Reptiles			
Barefoot banded gecko <i>Coleonyx switaki</i>	ST, BLM_S	Found only in areas of massive rock and rock outcrops at the heads of canyons in Sonoran and Mojavean desert scrub.	Absent. Suitable habitat is not present within the project site. However, the nearest CNDDDB occurrence from 2019 is less than 1 mile from the project.
Red-diamond rattlesnake <i>Crotalus ruber</i>	SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks, or surface cover objects.	Absent. Suitable habitat is not present within the project site. Nearest CNDDDB occurrence from 1993 is 19 miles southwest of the project.
Flat-tailed horned lizard <i>Phrynosoma mcallii</i>	SSC, BLM_S	Restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial Counties. Critical habitat element is fine sand, into which lizards burrow to avoid temperature extremes; requires vegetative cover and ants. Associated with desert dunes, and Mojavean and Sonoran desert scrub.	Present. Suitable habitat is present within the project site. The project is within the known range of this species. There are multiple recent CNDDDB occurrences on-site. This species was not observed during the surveys, however, was observed within the Seville 4 project site.
Colorado Desert fringe-toed lizard <i>Uma notata</i>	SSC, BLM_S	Colorado Desert region; in sand dunes, dry lakebeds, sandy beaches or riverbanks, desert washes, or sparse desert scrub. Requires fine, loose, windblown sand (for burrowing); shrubs or annuals for arthropod production.	Absent. The project site does not contain suitable habitat for this species. Windblown sands are not present in the project site. Nearest CNDDDB occurrence from 2008 is 6 miles northwest of the project.
Birds			
Golden eagle <i>Aquila chrysaetos</i>	FP, BGEPA, BLM_S	Nests in a wide variety of habitats from near sea level to 3,630 feet amsl. Nesting habitat includes tundra, shrublands, grasslands, woodland-brushlands, and coniferous forests. Nesting habitat is often associated with either cliffs or trees, although some nests are built on the ground.	Low (foraging only). Suitable foraging habitat occurs within the project site; however, the project site is unlikely to support nesting habitat. The project site occurs within the known range of this species. Nearest CNDDDB occurrence from 1972 is approximately 13 miles west of the project. The nearest eBird record from 2020 is approximately 2.5 miles northwest of the project.
Burrowing owl <i>Athene cunicularia</i>	SC, SSC, BLM_S	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel (<i>Spermophilus beecheyi</i>).	Low. Suitable habitat is present within the project site. The nearest CNDDDB record from 2010 is 6 miles west of the project site. Nearest eBird record from 2015 is approximately 2 miles northwest of the project site, with multiple recent records within 5 miles of the project.
Mountain plover <i>Charadrius montanus</i>	SSC, BLM_S	Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Short vegetation, bare ground, and flat topography. Prefers grazed areas and areas with burrowing rodents.	Low (overwintering only). Suitable habitat is present within the project site. Nearest CNDDDB occurrence from 2009 is approximately 10 miles northeast of the project site. There are multiple recent eBird records 20 miles east of the project.

Common Name Scientific Name	Status*	Range or Habitat Requirements†	Potential for Occurrence in Project Site
Western snowy plover <i>Charadrius nivosus nivosus</i>	FT, SSC	Sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting.	Absent. Suitable habitat is not present within the project site. Nearest CNDDDB occurrence from 1999 is approximately 14.5 miles north of the project site. The nearest eBird observation from 2010 is approximately 15 miles north of the project.
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	FE, SE	Riparian woodlands in southern California. Nests in dense vegetation, particularly willow (<i>Salix</i> spp.) thickets and other riparian shrubs.	Absent. Suitable habitat is not present within the project site. There are no CNDDDB occurrences in the 9-quadrangle search query. The species appeared in the results of the IPaC query. Critical habitat for this species is approximately 27 miles west of the project site. The nearest eBird observation from 2023 is approximately 50 miles northwest of the project.
Gull-billed tern <i>Gelochelidon nilotica</i>	SSC	Only known breeding colonies at San Diego Bay and the Salton Sea. Nests on low, sandy islets. Known to feed on fishes at mouth of Colorado River and on grasshoppers in alfalfa fields.	Absent. Suitable habitat is not present within the project site. Nearest CNDDDB occurrence from 1992 is approximately 13 miles west of the project site. The nearest eBird record from 2020 is 12 miles east of the project.
Loggerhead shrike <i>Lanius ludovicianus</i>	SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Present. Suitable habitat is present within the project site. The nearest CNDDDB record from 2010 is 6 miles west of the project site. There are multiple recent eBird records within 5 miles of the project, and this species was observed during the survey.
LeConte's thrasher** <i>Toxostoma lecontei</i>	SSC, BLM_S	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats.	Low. Suitable habitat is present within the project site. The nearest CNDDDB record from 1933 is 6 miles east of the project site, although there are multiple more recent sightings within 10 miles. There are multiple recent eBird records within approximately 5 miles of the project site.
California black rail <i>Laterallus jamaicensis coturniculus</i>	FP, ST, BLM_S	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Absent. Suitable habitat is not present within the project site. Nearest CNDDDB occurrence from 2004 is approximately 4.5 miles southeast of the project site. The nearest eBird observation from 2017 is over 100 miles southeast of the project.
Yuma Ridgway's rail <i>Rallus obsoletus yumanensis</i>	FP, FE, ST	Nests in freshwater marshes along the Colorado River and along the south and east ends of the Salton Sea. Prefers stands of cattails (<i>Typha</i> spp.) and tule (<i>Schoenoplectus</i> spp.) dissected by narrow channels of flowing water; principal food is crayfish.	Absent. Suitable habitat is not present within the project site. There are no CNDDDB occurrences in the 9-quadrangle search query. The species appeared in the results of the IPaC query
California brown pelican <i>Pelecanus occidentalis californicus</i>	FP, BLM_S	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.	Absent. No suitable habitat is present within the project site. CNDDDB occurrences are located 12.5 miles east at the Salton Sea.
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE, SE	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet amsl. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow (<i>Baccharis</i> spp.) or mesquite (<i>Prosopis</i> spp.).	Absent. Suitable habitat is not present within the project site. Nearest CNDDDB occurrence from 2003 is approximately 17 miles southwest of the project site. The nearest eBird observation from 2016 is approximately 18 miles northwest of the project.

Common Name Scientific Name	Status*	Range or Habitat Requirements†	Potential for Occurrence in Project Site
Mammals			
Pallid bat <i>Antrozous pallidus</i>	SSC, BLM_S	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Absent. Suitable foraging habitat is present within the project site, but no potential roost sites are present. The project is within the known range of the species. The nearest CNDDDB record from 1996 is located approximately 10 miles southwest of the project site.
Western mastiff bat <i>Eumops perotis californicus</i>	SSC, BLM_S	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Absent. Suitable foraging habitat is present within the project site, but no potential roost sites are present. The project is within the known range of the species. The nearest CNDDDB record from 1967 is located approximately 10 miles southwest of the project site.
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	SSC	Variety of arid areas in southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Absent. Suitable foraging habitat is present within the project site, but no potential roost sites are present. The project is within the known range of the species. The nearest CNDDDB record from 1996 is located approximately 10 miles southwest of the project site.
Peninsular bighorn sheep <i>Ovis canadensis nelsoni</i>	FP, FE, ST	Eastern slopes of the Peninsular Ranges below 4,600 feet amsl. This Distinct Population Segment of the subspecies inhabits the Peninsular Ranges in southern California from the San Jacinto Mountains south to the U.S.-Mexico International Border. Optimal habitat includes steep walled canyons and ridges bisected by rocky or sandy washes, with available water.	Absent. Suitable habitat is not present within the project site. The project is within known range of this species. The nearest CNDDDB occurrence from 1986 is approximately 15 miles east of the project site. Critical habitat for this species is approximately 30 miles north of the project.
Palm Springs pocket mouse <i>Perognathus longimembris bangsi</i>	SSC, BLM_S	Desert riparian, desert scrub, desert wash and sagebrush habitats. Most common in creosote bush-dominated desert scrub. Rarely found on rocky sites. Occurs in all canopy coverage classes.	Low. Suitable habitat is present within the project site. The project is within the known range of this species. The nearest CNDDDB occurrence from 2015 is approximately 9 miles northwest of the project site.
American badger <i>Taxidea taxus</i>	SSC	Badgers are generally associated with dry, open, treeless regions, prairies and grasslands, low-intensity agriculture (e.g., pasture, dryland crops), drier open scrublands and forest, parklands, and cold desert areas.	Low. Suitable habitat is present within the project site. There are no CNDDDB occurrences near the project site. However, there are multiple recent iNaturalist observations within 5 miles of the project.
Desert kit fox <i>Vulpes macrotis arsipus</i>	CPF	Occurs in a wide range of desert habitats consisting of desert scrub and washes, and may also occur in grasslands or ruderal habitats.	Present. Desert kit fox is not tracked in CNDDDB. However, the species is widespread throughout the Colorado Desert and expected to be present in the project vicinity. One dig site was found in the project site.

Sources: Habitat and range descriptions were taken directly from the CNDDDB (CDFW 2025a). The potential for special-status bird species to occur within the project site was assessed using the eBird database (eBird 2025). The potential for other wildlife to occur within the project site was assessed using iNaturalist (iNaturalist 2025). Critical habitat was assessed using the USFWS Critical Habitat Mapper (USFWS 2025b).

**Only the San Joaquin Valley population of LeConte's thrasher is considered SSC and BLM_S.

*Status Codes:

Federal Status:

FE = Federally Listed Endangered

FT = Federally Listed Threatened

FC = Federal Candidate for Listing

BGEPA = Bald and Golden Eagle Protection Act

BLM_S = BLM Sensitive

California State Status:

SE = California State-Listed Endangered
ST = California State-Listed Threatened
SC = Candidate for California State-Listed Endangered
FP = CDFW Fully Protected
SSC = CDFW Species of Special Concern
CPF = California Protected Fur-Bearer

4.7.2.1 FLAT-TAILED HORNED LIZARD

Flat-tailed horned lizard is a CDFW species of special concern and BLM sensitive species. This species is restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial Counties. A critical habitat element for flat-tailed horned lizards is fine sand, into which lizards burrow to avoid temperature extremes. This species also requires vegetative cover and ants to forage. They are commonly associated with desert dunes and Mojave and Sonoran desert scrub. Flat-tailed horned lizards generally occur in low densities and home ranges for this species is usually large, with an average home range size of 6.7 acres (Flat-tailed Horned Lizard Interagency Coordinating Committee 2003). Suitable habitat is present within the project site, and the project is within the known range of this species. There are multiple recent CNDDDB occurrences on-site, and this species was observed during the survey (Figure 5). Flat-tailed horned lizard is considered present.

4.7.2.2 GOLDEN EAGLE

The golden eagle (*Aquila chrysaetos*) is a CDFW fully protected species, a BLM sensitive species, and protected pursuant to the federal Bald and Golden Eagle Protection Act. This species has an extremely large global range that includes much of North America, Eurasia, and parts of northern Africa. The golden eagle is an uncommon but widespread resident in California and is known to nest in the Tehachapi Mountains and occasionally on its southern foothills. Territories regularly span 5 to 10 miles depending on the availability of prey, nest sites, and wind resources. Breeding adults in desert settings may range up to 10 miles from the nest while foraging. Golden eagles nest on cliffs, on rock outcrops, or in large trees, none of which are present in the project site. Foraging golden eagles require large amounts of open space for hunting, such as grasslands, deserts, and savannahs. The entire project site provides suitable habitat and may support a suitable prey base. Mid-sized mammals such as rabbits and marmots are preferred, but prey may be as small as ground squirrels or as large as deer (rarely), and golden eagles will consume carrion when it is available. The project site supports some small to moderate-sized mammalian prey species, including black-tailed jackrabbits (*Lepus californicus*) and desert cottontail (*Sylvilagus audubonii*).

No golden eagles were observed incidentally by SWCA biologists in the project site, and there is no suitable habitat for nesting within several miles. The nearest CNDDDB occurrence from 1972 is approximately 13 miles west of the project. However, the project site is suitable for foraging, and there are recent records of golden eagles approximately 2.5 miles northwest of the project site. The potential for golden eagle to forage within the project site at a very low density is moderate. However, because there are no potential nest sites in the project site, golden eagle is considered absent as a nesting species.

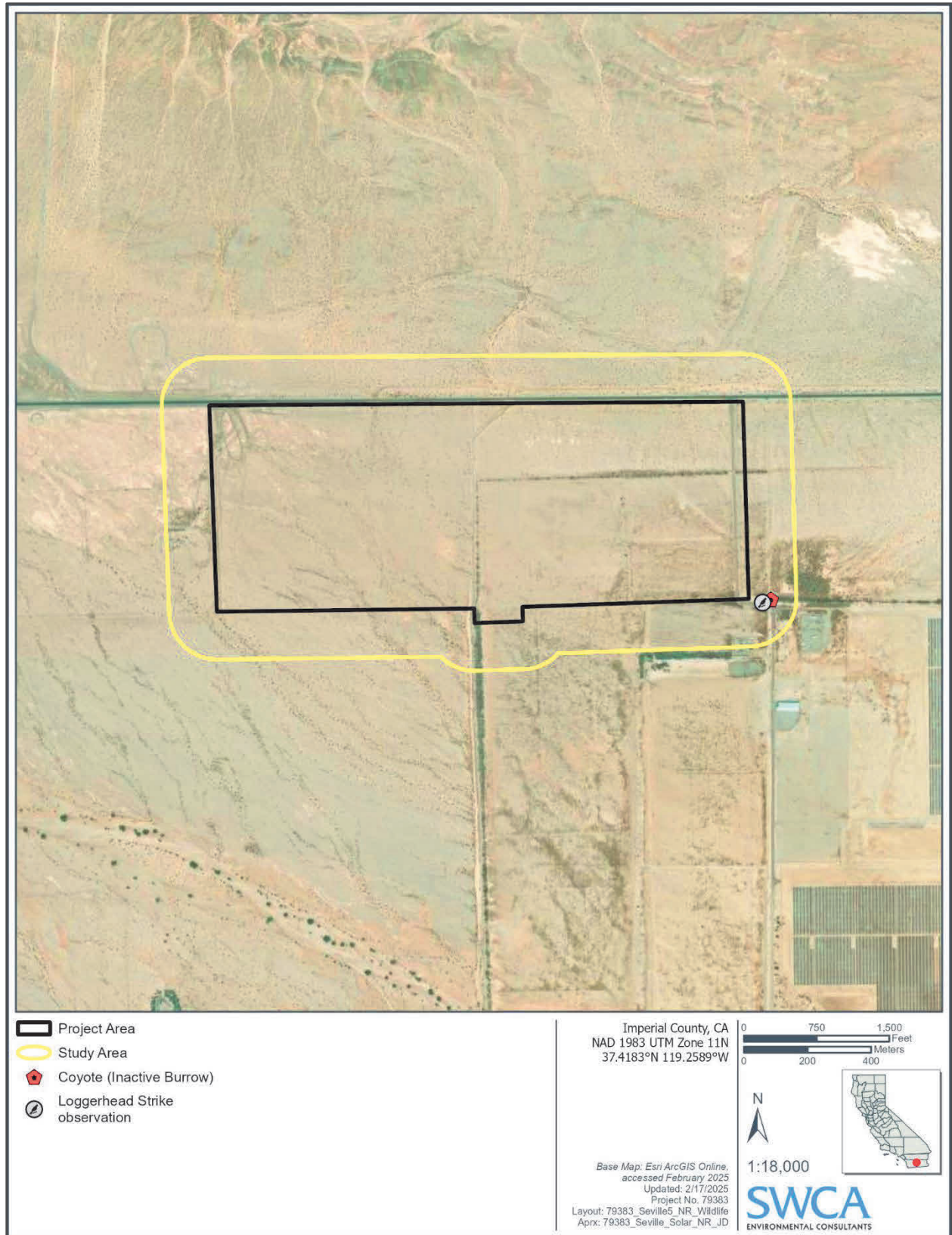


Figure 5. Special-status wildlife observations.

4.7.2.3 BURROWING OWL

Burrowing owl (*Athene cunicularia*) is a CDFW species of special concern and BLM sensitive species, and as of October 2024, a candidate for CESA listing (CDFW 2024). This species occurs in a wide range of mostly open habitats in California, including grasslands, shrub-steppe, deserts, pastures, and agricultural areas. The range of this species in California extends from Redding south to San Diego, east through the Mojave Desert and west to the coast. Breeding populations from the northern range of the species are apparently migratory, and southern California breeders are probably year-round residents (Thomsen 1971). Seasonal movements also occur in some parts of the southern range. Increases in winter population sizes within southern California are probably the result of immigration of owls from more northerly areas (Sheffield 1997). Male burrowing owls that reside year-round in southern California may overwinter in burrows within nesting areas, which allows them to retain possession of their burrows and territories and to maintain the burrows (Johnsgard 2002).

Suitable habitat for burrowing owl includes short vegetation and, in the breeding season, the presence of small mammal burrows. The key characteristics of suitable habitat are moderately low and sparse vegetation; a prey base of small mammals, reptiles, and/or large insects during nesting; and burrows or similar sites for shelter. This species occurs at low densities throughout the Colorado Desert, where it is present in both the breeding and non-breeding seasons, as recorded in CNDDDB and eBird. The nearest CNDDDB record from 2010 is 6 miles west of the project site. The nearest eBird record from 2015 is approximately 2 miles northwest of the project site, with multiple recent records within 5 miles of the project, and habitat is suitable for this species.

A protocol burrowing owl survey was conducted, but no burrows with characteristic sign were found on-site and no signs of burrowing owls were observed. Burrowing owls may nest or overwinter in the burrows of other species; one potential canid burrow that could support this species was found on-site. Burrowing owl has a low potential to occur on-site based on the presence of suitable habitat and the proximity to nearby records.

4.7.2.4 MOUNTAIN PLOVER

Mountain plover (*Charadrius montanus*) is a CDFW species of special concern and BLM sensitive species. This species prefers short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms in addition to areas with short vegetation, bare ground, and flat topography. Mountain plovers prefer grazed areas and areas with burrowing rodents. This wintering range of this species is from northern California to central Mexico. Suitable overwintering habitat is present within the project in areas with bare, flat ground and short vegetation. The nearest CNDDDB occurrence from 2009 is approximately 10 miles northeast of the project site, and there are multiple recent eBird records 20 miles east of the project. Mountain plover has a low potential to overwinter on-site based on the presence of suitable habitat. The project site is outside of the breeding range for the species.

4.7.2.5 LOGGERHEAD SHRIKE

Loggerhead shrike (*Lanius ludovicianus*) is listed as a CDFW species of special concern. This species occurs in areas with widely spaced shrubs or low trees, such as scrublands, steppes, deserts, savannahs, prairies, agricultural lands, and sometimes suburban areas. This species preys on large insects, lizards, small mammals, birds, and carrion. It requires open areas for hunting, and shrubs or low trees for perches and nest sites. The nearest CNDDDB record from 2010 is 6 miles west of the project site, and there are multiple recent eBird records within 5 miles of the project (see Figure 5). Several loggerhead shrikes were observed during all field surveys and there is suitable habitat within the project site. Loggerhead shrike is considered present.

4.7.2.6 LECONTE'S THRASHER

LeConte's thrasher (*Toxostoma lecontei*) is listed as a CDFW species of special concern and BLM sensitive species. However, this listing applies only to the San Joaquin Valley population. This species occurs in desert habitats such as open desert washes, desert scrub, alkali desert scrub, and desert succulent scrub habitats. The nearest CNDDDB record from 1933 is 6 miles east of the project site, and there are multiple recent eBird records within 5 miles of the project. LeConte's thrasher was not observed during field surveys, but there is suitable habitat within the project site. LeConte's thrasher has a low potential for occurrence in the project site.

4.7.2.7 PALM SPRINGS POCKET MOUSE

Palm Springs pocket mouse (*Perognathus longimembris bangsi*) is a CDFW species of special concern. The range for this species is generally within the Coachella Valley, but also extends as far south into Ocotillo Wells. This species inhabits flat, gently sloping areas with sparse to moderate vegetation cover, and loosely packed or sandy soils. Palm Springs pocket mouse feeds on seeds of native herbaceous plants and grasses. Common plant species associated with this species include creosote bush, brittlebush, white bursage, Schott's indigo bush (*Psoralea schottii*), cheesebush (*Ambrosia salsola*), and honey mesquite (*Prosopis glandulosa*) (Center for Biological Diversity 2006).

The nearest CNDDDB occurrence from 2015 is approximately 9 miles northwest of the project. During the field surveys, suitable habitat was confirmed to be present within the Creosote Bush Scrub. The disturbed habitat, such as Fallow Agriculture land cover type and unvegetated areas are not suitable for this species. The project site is at the southern limits of this species' range. Furthermore, the Desert Renewable Energy Conservation Plan species distribution model, a statistical model that predicts habitat occupancy, shows a patchy distribution in the vicinity of the project site. Only small areas of the northern and western portions of the project overlap with the species distribution model (Conservation Biology Institute 2023). This species was not observed during the field survey, but the lack of observations is due to its nocturnal habits. Palm Springs pocket mouse has a low potential for occurrence in the project site.

4.7.2.8 AMERICAN BADGER

American badger, a CDFW species of special concern, is generally found in open areas, including open woodlands, desert scrub, and grasslands. This species requires friable soils and a sufficient prey base of small rodents. The project site is considered potential habitat for this species, which is widespread throughout North America. Badger dens are distinctive due to their size and the presence of claw marks on the sides created when the den was dug.

There are no CNDDDB occurrences near the project site. However, there are multiple recent iNaturalist observations within 5 miles of the project. American badger is included in this evaluation because the project site is within the known range of the species and suitable habitat is present. The lack of recent CNDDDB records is likely due to several factors, such as low population densities and lack of observations due to their nocturnal habits. Individuals are rarely observed, and observations are typically made through sign, such as dens, dig sites, and scat. No badger burrows, dig sites, or other sign were found during the field survey. However, American badger may be present in the project vicinity and could forage on-site. American badger has a low potential to occur within the project site.

4.7.2.9 DESERT KIT FOX

Desert kit fox is afforded protection from take under California Fish and Game Code Sections 460 and 4000-4003. Much of the Colorado Desert provides habitat for this species, although its population status

and trends are unclear. Desert kit fox can be found in a wide range of habitat types, including desert scrub, washes, and arid grasslands. In the Colorado Desert, desert kit fox dens are frequently located on west- and northwest-facing slopes on friable soils with an absence of stones, caliche, or hardpan. Kit foxes use multiple dens, and switch dens frequently throughout the year. Breeding typically occurs in December and January, and pups usually leave the natal den by May.

The CNDDDB does not maintain records for this species, so no location records are available for reference, although this species is regularly encountered in desert habitats. A majority of the project site is suitable habitat for desert kit fox. No kit foxes were observed during any of the surveys, likely due to their nocturnal habits. There was a potential canid dig site with kit fox scat within the project buffer (see Figure 5). Old and fresh desert kit fox scat and tracks were observed throughout the project site. Based on the sign observed desert kit fox is presumed to be present in the project site.

4.7.3 Nesting Birds

The field survey was conducted during the nesting bird season, which is generally considered February 1 to August 31. No active nests were found during the surveys. However, the project site contains suitable nesting habitat for both common and special-status birds. There are suitable nest sites for ground-nesting, shrub-nesting, and tree-nesting species. Examples of ground-nesting species that could potentially nest on-site include California quail (*Callipepla californica*), lesser nighthawk (*Chordeiles acutipennis*), common poorwill (*Phalaenoptilus nuttallii*) and horned lark. Examples of shrub-nesting species that could potentially nest on-site include loggerhead shrike and black-throated sparrow (*Amphispiza bilineata*). Examples of tree-nesting species that could potentially nest on-site include common raven, house finch, and mourning dove, and white-winged dove (*Zenaida asiatica*).

5 POTENTIAL IMPACTS AND RECOMMENDATIONS

This section describes the anticipated direct and indirect impacts to biological resources at the proposed project site that may result from implementation of the proposed project. This analysis was based on the results of the biological resources surveys conducted at the site, information from literature and database resources, and the proposed project design and layout. Because the project design has not been finalized at this time, it is assumed for the purposes of this analysis that the entirety of the project site may be subject to temporary or permanent impacts.

Project implementation would result in the direct removal of on-site plant communities, and wildlife that depend on them for habitat. Many indirect impacts to off-site biotic resources are possible during construction (e.g., noise, dust) and after project completion (e.g., noise, night lighting, restriction of movement). Deposition of dust on off-site vegetation communities during construction could adversely affect quality of the habitat. Additionally, artificial night lighting could adversely affect the behavior of nocturnal wildlife, and increased trash produced by project activities could result in an increase of opportunistic predators to the area.

Under CEQA, a mitigation plan would need to be developed to avoid, minimize, and mitigate for impacts associated with the implementation of the project. As the lead agency responsible for authorizing project implementation, Imperial County is responsible for ensuring that the measures for avoiding, minimizing, and reducing impacts are sufficient and compliant with CEQA and CESA requirements, as well as other applicable state, federal, and local regulations.

If impacts to certain types of sensitive biological resources (e.g., threatened or endangered species, sensitive vegetation communities) were to occur, permits from the applicable regulatory agencies may

be required. Pre-construction and protocol-level surveys would minimize impacts to sensitive wildlife that can be avoided or translocated off-site. Potential impacts that may result from project implementation and recommended mitigation measures (MMs) pertinent to specific resource types are discussed below.

5.1 7. Recommended Mitigation Measures

MM BIO-1: Worker Environmental Awareness Program. Prior to the onset of construction activities, the project proponent should provide a worker environmental awareness program (WEAP) training. The WEAP should be developed by a qualified biologist. Any employee responsible for the operation and maintenance of the completed facilities should also attend the WEAP.

1. The program should include information on the life history of sensitive biological resources that may occur within the project site and surrounding areas.
2. The program should discuss each species' legal protection status, the definitions of take under the CESA and federal ESA, measures the project operator is implementing to protect the species, reporting requirements, specific measures that each worker should employ to avoid take of wildlife species, and penalties for violation of the CESA and ESA.
3. The program should provide information on how and where to bring injured animals for treatment in case any animals are injured on the project site, and how to document animal mortalities and injuries.
 - a. An acknowledgement form signed by each worker indicating that environmental training has been completed will be kept on record.
 - b. A sticker should be placed on worker hard hats upon the worker's successful environmental training completion. Construction workers should not be permitted to operate vehicles or equipment within the construction areas unless they have attended the training and are wearing hard hats with the required sticker.
4. The WEAP should identify a point of contact (e.g., qualified biologist) if a protected species is observed on the project site.

MM BIO-2: Best Management Practices. To reduce indirect impacts to special-status plants and wildlife that may occur in the project site, best management practices (BMPs) will be implemented to control dust pollution, prevent discharge of potentially harmful chemicals, and prevent changes in hydrology. BMPs may include the installation of erosion and sedimentation control devices, applying water to control dust, placing drip pans under equipment when not in use, refueling in designated areas, and properly containing concrete washouts, among other practices.

5.2 Potential Impacts to Vegetation Communities

At this time, it is assumed that all impacts to vegetation within the project site will be permanent. The permanent impacts within the project site are expected to be 266.88 acres (Table 5). Of the total acreage, 220.61 acres consist of two natural communities identified on-site. The remaining acreage includes Developed and Disturbed – Fallow Agriculture land cover types and Tamarisk Thickets, a semi-natural vegetation community consisting primarily of non-native species. In general, land cover types and semi-natural vegetation communities are excluded from the acreage calculations as this habitat is already disturbed.

In the event that project impacts are temporary rather than permanent, the temporary impact areas will be reseeded to restore the original vegetation communities, pursuant to MM BIO-4 (described below).

MM BIO-3: Revegetation of Temporary Impacts. Prior to the issuance of building or grading permits, the applicant shall submit a plan for restoring to their previous condition all areas of temporary impact to plant communities to the Imperial County Planning Department for review and approval. The restoration plan shall identify success criteria for each habitat type and develop monitoring measures to ensure that success criteria will be met.

All areas designated for temporary impacts shall be revegetated with an Imperial County–approved seed blend that includes native grasses, forbs, and shrub species characteristic of the plant community receiving the temporary impact. Revegetation activities shall be undertaken as soon as construction activities have been completed to minimize colonization by non-native weedy species. The use of herbicides shall be limited to nonpersistent, immobile pesticides and shall only be applied in accordance with label and application permit directions and stipulations for terrestrial and aquatic applications.

Table 5. Potential Impacts to Vegetation Communities and Land Cover Types

Vegetation Community	Approximate Acres within the Project Site
Fourwing Saltbush Scrub <i>Atriplex canescens</i> Shrubland Alliance	39.69
Creosote Bush Scrub <i>Larrea tridentata</i> Shrubland Alliance	180.92
Tamarisk Thickets <i>Tamarix</i> spp. Shrubland Semi-Natural Alliance	3.27
Disturbed – Fallow Agriculture	39.69
Developed	3.61
Total	267.18

5.3 Special-Status Species

In accordance with Appendix G of the CEQA guidelines, the proposed project would have a significant effect on biological resources if it would:

- a) Have a substantial adverse effect directly or through habitat modifications on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

The following sections describe the potential impacts to special-status biological resources. Recommended mitigation measures for each specific special-status species or other sensitive biological resource are detailed below.

5.3.1 Special-Status Plants

The results of the habitat assessment and rare plant survey determined that 15 special-status plant species were determined to occur or have the potential to occur in the project site, based on an evaluation of local occurrence records, habitat conditions, elevation, and other factors. These species include Salton milk-vetch, Harwood's milk-vetch, Borrego milk-vetch, gravel milk-vetch, Peirson's pincushion, California ditaxis, Abrams' spurge, Newberry's velvet-mallow, ribbed cryptantha, winged cryptantha, Torrey's box-thorn, brown turbans, Thurber's pilostyles, desert unicorn-plant, and Orcutt's woody-aster. Of these species, only Salton milk-vetch was observed in the project site. The survey was conducted

during the appropriate blooming season for most species; however, most annuals in the project site had already seeded at the time of the survey. Additionally, some species including, Abrams' spurge, bloom after summer monsoon storms and would not have been identifiable during the survey. Annual plant growth varies from year to year, depending on precipitation and other factors. Sensitive plant species could be found in subsequent years if weather conditions are ideal.

Potential direct impacts to special-status plants in the project site include vegetation removal or crushing of plants, which could result in the loss of individuals or populations. Special-status plants may also be subject to short-term indirect impacts, such as excessive fugitive dust, which can settle on plants, restricting light penetration and photosynthesis. Significant impacts to all sensitive plants can be avoided by the avoidance measures listed below.

MM BIO-4: Special-Status Plants. If construction has not begun before April 2024, then a rare plant survey, during the optimal blooming period, will be conducted in 2024, or within 12 months before the start of construction. The results of the survey should be provided to the Imperial County Planning Department. If special-status plant species are found during the rare plant survey, then environmentally sensitive area fencing or visual indicators will be established at a 50-foot radius around individuals and groups of special-status plants to ensure that they are not destroyed during project activities. Pursuant to Section 1913(c) of the California Fish and Game Code, if project activities cannot avoid those areas, then CDFW will be notified and provided the opportunity to salvage any of these plants that would be removed.

If avoidance is not feasible and project activities would impact more than 10% of the local population of a sensitive plant species, then impacts may be minimized by a mitigation plan. The mitigation plan will be prepared in consultation with CDFW and may include the following:

1. Identification of on-site or off-site preservation, restoration, or enhancement locations
2. Methods for preservation, restoration, enhancement, and/or population translocation
3. A replacement ratio and success standard of 1:1 for occupied habitat lost unless a lower mitigation ratio and/or alternative mitigation is agreed to in coordination with CDFW
4. A 5-year monitoring program to ensure success
5. Adaptive management and remedial measures
6. Financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity

MM BIO-5: Invasive Plants. To prevent the spread of invasive plants that have the potential to outcompete native plant species, all vehicles and any ground- or vegetation-disturbing equipment and tools should be cleaned free of mud, soil, and plant material prior to entering or exiting the project site, throughout the duration of the project. Cleaning can be through car washes, compressed air, pressure washes, brushes, or similar equipment.

5.3.1.1 CALIFORNIA DESERT NATIVE PLANTS

CDNPA-regulated plant species identified within the project site include silver cholla (*Cylindropuntia echinocarpa*), desert ironwood (*Olneya tesota*), honey mesquite, and smoketree (*Psoralea argyrea*). Native desert plants that are declared to be rare, threatened, or endangered species by federal or state law are not included under the provisions of the CDNPA.

MM BIO-6: California Desert Native Plants Act Species. CDNPA-regulated plants will be flagged for avoidance and their location will be documented using a GPS with sufficient accuracy for reliable

relocation. During construction, impacts to regulated plants will be avoided whenever possible. If impacts to CDNPA-regulated plants are unavoidable, mitigation may be required. Mitigation may include a relocation or removal plan detailing methods to salvage, store, and replant CDNPA-regulated plants.

5.3.2 Special-Status Wildlife

Based on the assessment of local occurrence records, habitat conditions, elevation, and other factors, nine species have the potential to occur within the project site. These species include flat-tailed horned lizard, golden eagle, burrowing owl, mountain plover, loggerhead shrike, Palm Springs pocket mouse, American badger, and desert kit fox. Of these species, flat-tailed horned lizard, loggerhead shrike, and desert kit fox were confirmed to be present based on live observations or sign present during the field survey. Avoidance and minimization measures for special-status wildlife, nesting birds, and non-nesting birds are described in the sections below.

5.3.2.1 FLAT-TAILED HORNED LIZARD

Flat-tailed horned lizard was determined to be present during the field survey. Two individuals were observed within the project site. Flat-tailed horned lizards have low mobility, meaning they do not travel far distances and are likely to remain in the same area throughout their lives. . The following measure is recommended for flat-tailed horned lizard to minimize impacts during project construction. This measure follows the guidelines presented in the *Flat-tailed Lizard Rangewide Management Strategy, Revision* (Flat-tailed Horned Lizard Interagency Coordinating Committee 2003).

MM BIO-7: Flat-tailed Horned Lizard. A qualified biologist should conduct construction a pre-construction survey for flat-tailed horned lizard within seven days before the start of ground-disturbing construction activities. The pre-construction survey will cover all suitable areas on-site, and focus on areas with suitable habitat for the species and where individuals were previously found. The pre-construction survey may be conducted in phases based on the construction schedule as ground-disturbing activities may occur during different phases of construction. Individual flat-tailed horned lizards found will be relocated to suitable habitat at least 200 feet from impact areas, roads, and laydown or staging areas. Translocation may only be conducted by a biologist who holds a current CDFW Scientific Collection Permit that authorizes handling of this species.

The project work areas will be clearly flagged or marked at the outer boundaries to define the limit of work activities. All work activities will be restricted to the flagged areas to avoid impacts to flat-tailed horned lizard and their habitat.

A qualified biological monitor should be present during ground-disturbing activities. The biological monitor will examine areas of active surface disturbance periodically (at least hourly when surface temperatures exceed 85°F) for the presence of flat-tailed horned lizards. In addition, open trenches, holes, or other excavated areas will be examined at least twice per day, and immediately prior to backfilling. If avoidance is not feasible or a flat-tailed horned lizard becomes trapped within the work area, the biological monitor, who will hold a Scientific Collecting Permit for this species, may capture the lizard by hand and relocate it to suitable habitat outside of the impact area. Dead or injured flat-tailed horned lizards will be reported to CDFW and Imperial County.

5.3.2.2 BURROWING OWL

Burrowing owl was determined to have a low potential for occurrence within the project site, though no potential burrows or sign were observed. Burrowing owl is protected under the MBTA, and as

a candidate for CESA listing incurs the same protection as listed species. The following measure is recommended for burrowing owl to ensure that no owls are impacted during project construction.

MM BIO-8: Burrowing Owl. A qualified biologist should conduct a pre-construction survey for burrowing owls no less than 14 days prior to any ground-disturbing construction activities. The survey should follow the methods outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). The survey is recommended because habitat is suitable for the species; the presence of small rodent burrows indicates there is a food supply.

If occupied burrowing owl burrows are detected on-site prior to construction, the following steps should be taken to avoid impacts. No activity should occur within a minimum of 50 meters (approximately 160 feet) of occupied burrows during the non-breeding season (September 1 through January 31), or within a minimum of 200 meters (approximately 656 feet) during the nesting season (February 1 through August 31). An incidental take permit with CDFW approval may be required if burrowing owl is determined to be present on-site.

5.3.2.3 NON-NESTING BIRDS

Some special-status birds may occur at the project site while foraging, but do not have the potential to nest at the site. Because of their mobility, birds can generally move out of harm's way and would not be injured or killed during grading, construction, or project operations and maintenance. Implementation of the project would reduce foraging habitat for non-nesting birds.

5.3.2.4 NESTING BIRDS

Implementation of the project has the potential to impact birds that are nesting at the project site by causing active nests to fail. The project has suitable nesting habitat for several special-status species and common bird species. The trees on-site provide suitable nesting habitat for raptors and other tree-nesting species.

MM BIO-9: Nesting Birds. If construction or vegetation removal activities must occur during the bird breeding season (February 1–August 31), surveys for active nests should be conducted by a qualified biologist no more than 14 days prior to the start of construction. For raptors, an initial no-disturbance buffer of 500 feet shall be established around active nests and demarcated with fencing or flagging. For non-raptors, an initial no-disturbance buffer of 250 feet shall be established around active nests and demarcated with fencing or flagging. No project-related activities shall occur within the buffer zone until a qualified biologist has determined that the fledglings have fledged and are no longer reliant on the nest or parental care for survival. The buffer distance for species not listed under the CESA or ESA may be reduced at the discretion of a biologist who has extensive experience observing bird behavior and monitoring nests and if the biologist observes that the birds' behavior is not disturbed by activity closer to the nest, depending on the sensitivity of the species and nest location. Buffer sizes for species listed under the CESA and/or ESA may be reduced in consultation with the CDFW and/or USFWS.

5.3.2.5 DESERT KIT FOX AND AMERICAN BADGER

One active desert kit fox dig site and desert kit fox scat were found in the project site during the May 2023 survey. While no American badger burrows were found, suitable habitat was determined to be present, and the species has the potential to occur on-site. The following measure is recommended to avoid impacts to desert kit fox and American badger.

MM BIO-10: Desert Kit Fox and American Badger. A pre-construction survey for desert kit fox and American badger should be conducted no more than 30 days prior to the start of construction/ground-

disturbing activities. Should potential burrows of desert kit fox or American badger be identified during the surveys, a qualified biologist will follow standard monitoring procedures to determine the occupancy status, species, and type (potential, active, natal) of burrow. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 30 days prior to that portion of the site disturbed. If no potential desert kit fox or American badger dens are present, no further mitigation is required. If occupied dens are observed and avoidance is feasible, the following buffer distances should be established prior to construction activities:

Desert kit fox or American badger potential den: 30 feet

Desert kit fox active den: 100 feet

Desert kit fox natal den: 500 feet

If avoidance of the occupied dens is not feasible, the following measures are recommended to avoid potential adverse effects to desert kit fox and American badger:

1. If the qualified biologist determines that potential dens are inactive, the biologist should excavate and collapse these dens with a shovel to prevent foxes and badgers from re-occupying them during construction.
2. If the qualified biologist determines that potential dens may be active, an on-site passive relocation program should be implemented. This program should consist of excluding foxes and badgers from occupied burrows by installation of one-way doors at burrow entrances, monitoring of the burrow for 1 week to confirm usage has been discontinued, and excavation and collapse of the burrow to prevent reoccupation.

5.3.2.6 PALM SPRINGS POCKET MOUSE

Palm Springs pocket mouse was determined to have low potential for occurrence within the project site based on the literature review and field surveys. There is suitable habitat present within the Creosote Bush Scrub habitat, but the remainder of the project site is generally unsuitable for the species. In addition, the project site is at the southern limits of the known range of for the species. Because of the low likelihood for occurrence, the project is not expected to impact Palm Springs pocket mouse.

5.4 Sensitive Natural Communities

In accordance with Appendix G of the CEQA guidelines, the proposed project would have a significant effect on biological resources if it would:

- b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.

No riparian habitat or other sensitive natural communities were identified within the project site. Mesquite Thickets were only identified in the study area buffer. No impacts are anticipated; therefore, no measures are warranted.

5.5 Wildlife Movement

In accordance with Appendix G of the CEQA guidelines, the proposed project would have a significant effect on biological resources if it would:

- d) Interfere substantially with the movement of any resident or migratory wildlife corridors or impede the use of wildlife nursery sites.

The project site is not within any mapped wildlife movement corridor or linkage. Migratory birds may utilize the project site for breeding, nesting, foraging, or transient rest sites. The Salton Sea located approximately 12 miles northeast of the project site hosts one of the most significant, diverse populations of avian species in the United States. However, the project is not expected to substantially impact the movement of resident or migratory birds that utilize the Salton Sea. Wide-ranging mammals, such as coyote, desert kit fox, and American badger may utilize the project site for denning or foraging.

MM BIO-11: Fence Design and Site Permeability. Fences installed around the proposed project should be designed to allow for the passage of wildlife. Depending on the fencing material, the bottom of the fence line should have gaps of approximately 4–6 inches and knuckled back to create a smooth edge. Alternate designs may also be constructed with prior written approval from the CDFW and USFWS.

5.6 Local Policies and Ordinances

In accordance with Appendix G of the CEQA guidelines, the proposed project would have a significant effect on biological resources if it would:

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The project does not conflict with the Imperial County General Plan and is not subject to any local ordinances. No impacts are anticipated; therefore, no measures are warranted.

5.7 Adopted or Approved Plans

In accordance with Appendix G of the CEQA guidelines, the proposed project would have a significant effect on biological resources if it would:

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Plan, or other approved local, regional, or state Habitat Conservation Plan.

The proposed project would not conflict with the provisions of any adopted habitat conservation plans or natural community plans. No impacts are anticipated; therefore, no measures are warranted.

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APPENDIX A

Floral and Faunal Compendium

Table A-1. Observed Flora at the Seville 5 Solar Energy Project

Scientific Name	Common Name	Lifeform	Native Status
ANGIOSPERMS (EUDICOTS)			
AMARANTHACEAE			
<i>Tidestromia lanuginosa</i>	wooly tidestromia	annual herb	native
<i>Tidestromia suffruticosa</i>	honeysweet	annual herb	native
ASTERACEAE			
<i>Ambrosia dumosa</i>	white bursage	shrub	native
<i>Ambrosia salsola</i>	cheesebush	shrub	native
<i>Bahiopsis parishii</i>	Parish viguiera	shrub	native
<i>Encelia farinosa</i>	brittlebush	shrub	native
<i>Encelia frutescens</i>	button brittlebush	shrub	native
<i>Erigeron canadensis</i>	horseweed	perennial herb	native
<i>Geraea canescens</i>	desert sunflower	annual herb	native
<i>Palafoxia arida</i> var. <i>arida</i>	desert needle	annual herb	native
<i>Pleurocoronis pluriseta</i>	arrow leaf	shrub	native
<i>Psathyrotes ramosissima</i>	velvet turtleback	annual herb	native
BORAGINACEAE			
<i>Johnstonella angustifolia</i>	narrow-leaved johnstonella	annual herb	native
BRASSICACEAE			
<i>Brassica tournefortii</i> *	Saharan mustard	annual herb	non-native
<i>Lepidium oblongum</i>	veiny pepper grass	annual herb	native
CACTACEAE			
<i>Cylindropuntia echinocarpa</i>	silver cholla	shrub (stem succulent)	native
CHENOPODIACEAE			
<i>Atriplex canescens</i>	fourwing saltbush	shrub	native
<i>Atriplex confertifolia</i>	spiny saltbush	shrub	native
<i>Atriplex hymenelytra</i>	desert holly	shrub	native
<i>Atriplex lentiformis</i>	big saltbush	shrub	native
<i>Chenopodium murale</i> *	nettle leaf goosefoot	annual herb	non-native
<i>Salsola tragus</i> *	Russian thistle	annual herb	non-native
<i>Suaeda nigra</i>	bush seepweed	perennial herb	native
EHRETIACEAE			
<i>Tiquilia plicata</i>	fanleaf crinklemat	perennial herb	native
EUPHORBIACEAE			
<i>Croton setigerus</i>	turkey mullein	perennial herb	native
<i>Euphorbia polycarpa</i>	smallseed sandmat	perennial herb	native
<i>Euphorbia albomarginata</i>	rattlesnake sandmat	perennial herb	native
FABACEAE			
<i>Astragalus crotalariae</i> (CRPR 4.3)	salton milkvetch	perennial herb	native
<i>Olneya tesota</i>	desert ironwood	tree	native

Scientific Name	Common Name	Lifeform	Native Status
<i>Prosopis glandulosa</i>	honey mesquite	tree/shrub	native
<i>Psoralethamnus emoryi</i>	Emory's indigo bush	shrub	native
<i>Psoralethamnus spinosus</i>	smoketree	shrub	native
MALVACEAE			
<i>Sphaeralcea ambigua</i>	apricot mallow	perennial herb	native
NYCTAGINACEAE			
<i>Abronia villosa</i> var. <i>villosa</i>	desert sand-verbena	annual herb	native
<i>Plantago ovata</i>	desert Indian wheat	annual herb	native
POLYGONACEAE			
<i>Chorizanthe rigida</i>	devil's spineflower	annual herb	native
<i>Eriogonum</i> sp.	annual buckwheat	annual herb	native
SOLANACEAE			
<i>Datura discolor</i>	desert thorn apple	annual herb	native
TAMARICACEAE			
<i>Tamarix aphylla</i> *	athel tamarisk	tree	non-native
ZYGOPHYLLACEAE			
<i>Larrea tridentata</i>	creosote bush	shrub	native
ANGIOSPERMS (MONOCOTS)			
AGAVACEAE			
<i>Hesperocallis undulata</i>	desert lily	perennial herb	native
POACEAE			
<i>Bromus</i> sp.	brome	annual grass	non-native
<i>Cynodon dactylon</i>	Bermuda grass	perennial grass	non-native

*Denotes non-native, invasive species.

Table A-2. Observed Fauna at the Seville 5 Solar Energy Project

Scientific Name	Common Name
CLASS REPTILIA	
REPTILES	
IGUANIDAE	
IGUANAS	
<i>Dipsosaurus dorsalis</i>	desert iguana
PHRYNOSOMATIDAE	
ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, FENCE, AND HORNED LIZARDS	
<i>Phrynosoma mcallii</i> *	flat-tailed horned lizard
<i>Sceloporus occidentalis</i>	western fence lizard
<i>Uta stansburiana</i>	side-blotched lizard
CLASS AVES	
BIRDS	
ALAUDIDAE	
LARKS	
<i>Eremophila alpestris</i>	horned lark
CAPRIMULGIDAE	
NIGHTHAWKS	
<i>Chordeiles acutipennis</i>	lesser nighthawk

Scientific Name	Common Name
<i>Phalaenoptilus nuttallii</i>	common poorwill
COLUMBIDAE	PIGEONS & DOVES
<i>Zenaida asiatica</i>	white-winged dove
<i>Zenaida macroura</i>	mourning dove
CORVIDAE	JAYS & CROWS
<i>Corvus corax</i>	common raven
FRINGILLIDAE	FINCHES
<i>Haemorhous mexicanus</i>	house finch
HIRUNDINIDAE	SWALLOWS
<i>Hirundo rustica</i>	barn swallow
LANIIDAE	SHRIKES
<i>Lanius ludovicianus</i>	loggerhead shrike
PARULIDAE	NEW WORLD WARBLERS
<i>Cardellina pusilla</i>	Wilson's warbler
STRIGIDAE	TRUE OWLS
<i>Bubo virginianus</i>	great horned owl
TROCHILIDAE	HUMMINGBIRDS
<i>Calypte anna</i>	Anna's hummingbird
TYRANNIDAE	TYRANT FLYCATCHERS
<i>Sayornis saya</i>	Say's phoebe
CLASS MAMMALIA	MAMMALS
CANIDAE	CANIDS
<i>Canis latrans</i> [†]	coyote
<i>Vulpes macrotis arsipus</i> ^{*†}	desert kit fox
HETEROMYIDAE	KANGAROO RATS
<i>Dipodomys deserti</i>	desert kangaroo rat
LEPORIDAE	HARES & RABBITS
<i>Lepus californicus</i> [†]	black-tailed jackrabbit
<i>Sylvilagus audubonii</i>	desert cottontail

^{*} Special-status species. Includes federally listed and state-listed and candidate species, California species of special concern, and California protected fur-bearers.

[†] Not directly observed; signs such as burrows and dens, pellets, whitewash, feathers, or scat were present.

APPENDIX B

Site Photographs



Figure B-1. Overview of Creosote Bush Scrub in the northwestern portion of the project site, facing west. Photographed May 8, 2023.



Figure B-2. Overview of disturbed Fourwing Saltbush Scrub in the northern portion of the project site, facing east. Photographed May 4, 2023.



Figure B-3. Overview of Tamarisk Thickets in the northeastern portion of the project site, facing north. Photographed May 5, 2023.



Figure B-4. Overview of Disturbed - Fallow Agriculture land cover type consisting of rows of furrows devoid of vegetation in the north-central portion of the study area, facing south-southwest. Photographed May 3, 2023.



Figure B-5. View of northern portion of the project site devoid of vegetation, facing northwest. Photographed May 4, 2023.



Figure B-6. View of developed land in the northeastern portion of the project site, facing northwest. Photographed May 4, 2023.



Figure B-7. Potential canid burrow. Photographed May 3, 2023.