# Biological Technical Report

## Vega SES 6 Solar Project

Imperial County, California

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## LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AOU | American Ornithologists' Union |
| BCC | Bird of Conservation Concern |
| BLM | Bureau of Land Management |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| CNDDB | California Natural Diversity Data Base |
| CNPS | California Native Plant Society |
| CNPSEI | CNPS Electronic Inventory |
| CRPR | California Rare Plant Rank |
| CWA | Clean Water Act |
| DRECP | Desert Renewable Energy Conservation Plan |
| ESA | Endangered Species Act |
| gen-tie | generator intertie |
| GIS | Geographic Information System |
| GPS | Global Positioning System |
| HCP | Habitat Conservation Plan |
| MBTA | Migratory Bird Treaty Act |
| MW | Megawatt |
| NPDES | National Pollutant Discharge Elimination |
| NPPA | Native Plant Protection Act |
| iPaC | Information for Planning and Consultation |
| NRCS | Natural Resources Conservation Service |
| OHV | Off-highway vehicle |
| Project | Vega SES 6 Solar Project |
| RWQCB | Regional Water Quality Control Board |
| SAA | Streambed Alteration Agreement |
| SSAR | Society for the Study of Amphibians and Reptiles |
| SSC | Species of Special Concern |
| sUAS | Small unmanned aircraft system |
| SWRCB | State Water Resources Control Board |
| USACE | U.S. Army Corps of Engineers |
| USDA | U.S. Department of Agriculture |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | U.S. Fish and Wildlife Service |

| | |
|---|---|
| USGS | U.S. Geological Survey |

# 1.0 INTRODUCTION

The Vega SES 6 Solar Project (Project) is an 80-megawatt (MW) direct current and 320 MW-hour battery storage utility-scale solar project located in Imperial County, California. The Proposed Project is located on approximately 283 acres of vacant land on a single parcel in Imperial County, California (APN 034-160-002). ECORP Consulting, Inc. conducted a literature review, small unmanned aircraft system (sUAS) survey, and biological reconnaissance survey of the Project site to document the existing biological resources, to assess the habitat for its potential to support sensitive plant and wildlife species, and, as required under the California Environmental Quality Act (CEQA), to determine whether Project-related impacts could occur to sensitive biological resources.

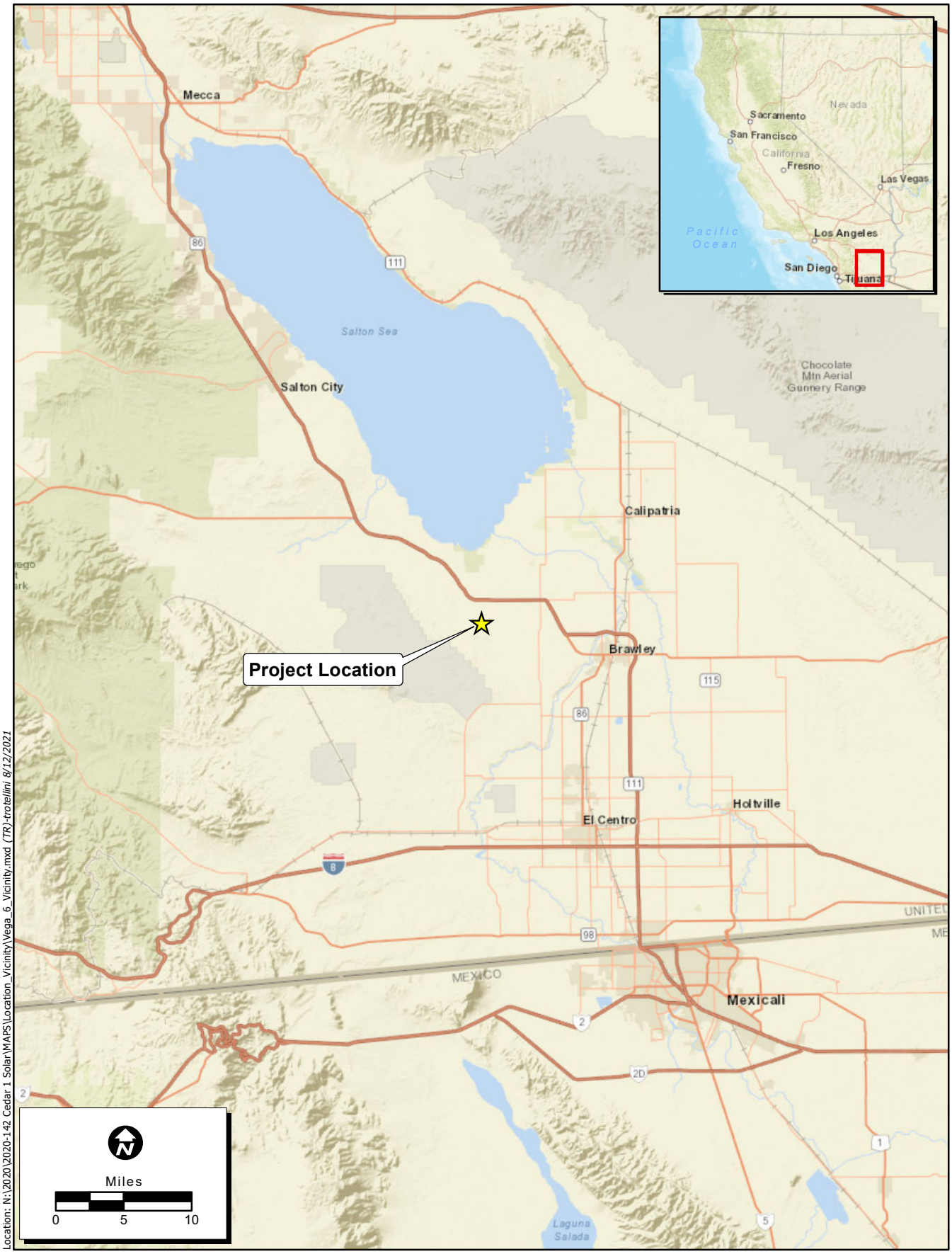
## 1.1 Purpose of the Report

This report was prepared to describe biological resources of the Project Area and to support Project review under CEQA.. Assessment of potential occurrences of special-status plants and animals is based on habitat, geographic and elevational range, and data from field surveys conducted by ECORP in 2020 and 2021. For the purposes of this report, the term *Project Area* refers to the areas proposed to be directly affected by implementation of the Project and corresponds to the client-supplied Project boundary. The Project Area limits encompass the parcel and proposed generator intertie (gen-tie) alignment. The term *Survey Area* refers to the Project Area and a 500-foot buffer around the Project Area boundaries, potentially subject to indirect impacts.

## 1.2 Project Location and Description

The Proposed Project would include construction of a solar energy generation facility, battery storage, groundwater supply well, and an approximately 4-mile gen-tie line. The Project Area is approximately five miles southwest of the community of Westmorland, California and 1.5 miles south of State Route 78 (Figure 1. *Project Vicinity*). The Project site is located along Garvey Road and 0.50 mile west of the Westside Main Canal (Figure 2. *Project Location*). The Project site is located within Sections 20, 21, 22, 23, 25, and 26 of Township 13 South, Range 12 East as depicted on the Westmorland West, CA and Kane Spring, CA, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles (USGS 1992).

Topography is relatively flat, with elevations ranging between 39 meters (129 feet) and 6 meters (21 feet) below sea level. Adjacent land uses include Open Space/Bureau of Land Management (BLM) land to the west and south, and active agriculture to the north and east. The Westside Main Canal travels southeast to northwest and is located northeast and east of the site.




Location: N:\2020\2020-142 Cedar 1 Solar\MAPS\Location_Vicinity\Vega_6_Vicinity.mxd (TR)-trotellini 8/12/2021

Map Date: 8/12/2021

*Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community*

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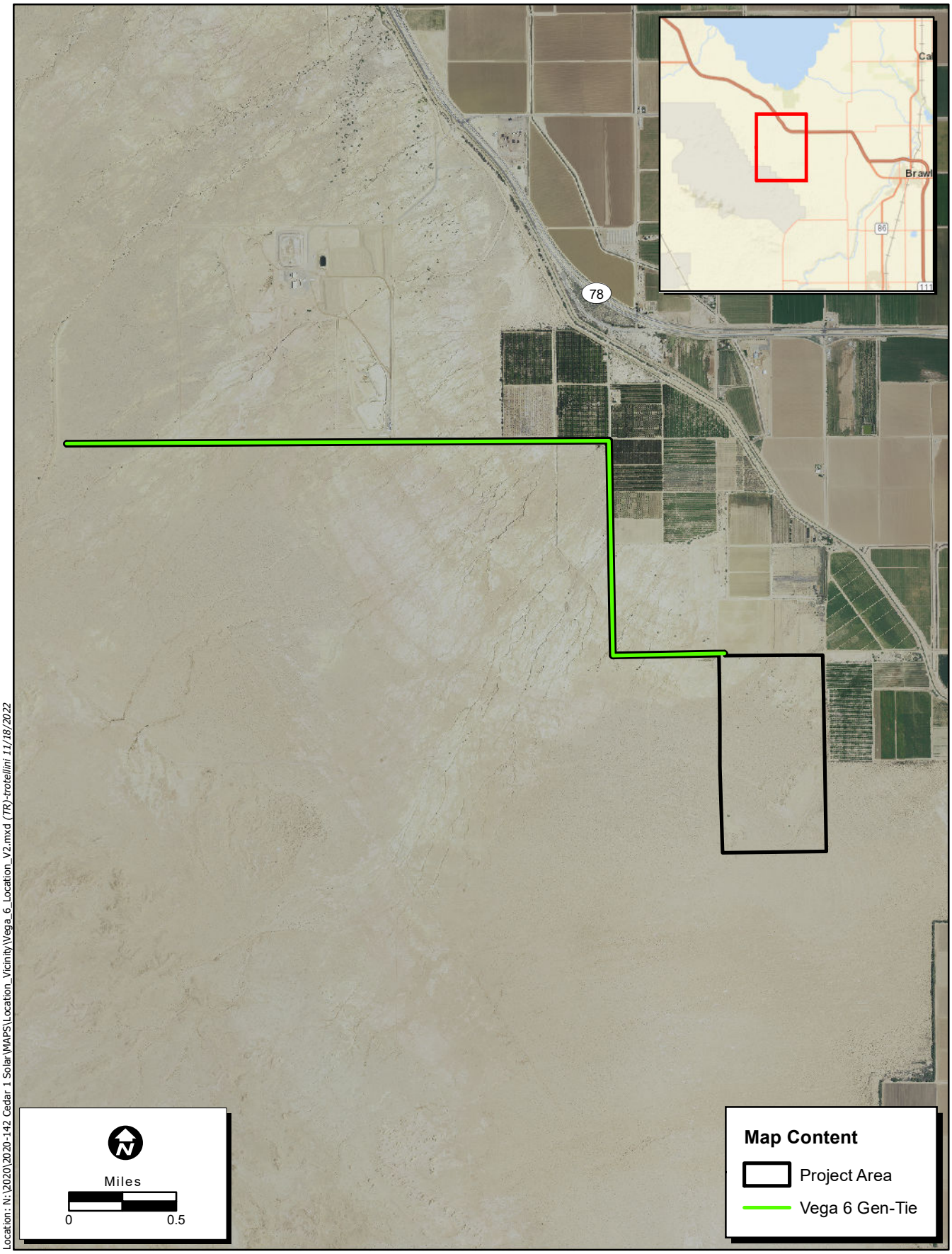
**Figure 1. Project Vicinity**

*2020-142 Vega SES 3*

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Map Date: 11/18/2022

*Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community,* NAIP (2020)

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**Figure 2. Project Location**

*2020-145 Vega SES 6*

# 2.0 REGULATORY CONSIDERATIONS

The biological reconnaissance survey was conducted to identify potential constraints and to ensure compliance with state and federal regulations regarding listed, protected, and sensitive species could be achieved. The regulations are detailed below.

## 2.1 Federal Regulations

### *2.1.1 Endangered Species Act*

The Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

### *2.1.2 Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

### *2.1.3 Clean Water Act*

The purpose of the Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground

water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (USEPA) acts as a cooperating agency to set policy, guidance, and criteria for use in evaluation permit applications and also reviews USACE permit applications.

The USACE regulates "fill" or dredging of fill material within its jurisdictional features. "Fill material" means any material used for the primary purpose of replacing an aquatic area with dry land or changing the bottom elevation of a water body. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the State Water Resources Control Board (SWRCB), administered by each of nine California Regional Water Quality Control Boards (RWQCB).

## 2.2 State and Local Regulations

### *2.2.1 California Endangered Species Act*

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called "candidates" by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

### *2.2.2 Fully Protected Species*

The State of California first began to designate species as "fully protected" prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

### *2.2.3 Native Plant Protection Act*

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code §§ 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The California ESA

of 1984 (California Fish and Game Code § 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

### *2.2.4 Porter Cologne Water Quality Control Act*

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Water Quality Act, the RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, with any region that could affect the water of the state" [Water Code 13260(a)].

Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050[e]). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State that are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

On April 2, 2019, the SWRCB adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (referred to as the Procedures) for inclusion in the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Resolution No. 2019-0015). The new Procedures include:

- definition of wetlands and aquatic resources that are Waters of the State,
- description of application requirements for individual orders (not general orders) for water quality certification, or waste discharge requirements,
- description of information required in compensatory mitigation plans, and
- definition of exemptions to application procedures.

The Office of Administrative Law approved the procedures on August 28, 2019, and the rule went into effect May 28, 2020.

### *2.2.5 California Fish and Game Code*

#### Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from

the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

#### Migratory Birds

The CDFW enforces the protection of nongame native birds in §§ 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds' nests and also make it unlawful to take these birds. All raptor species are protected from "take" pursuant to California Fish and Game Code § 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

### *2.2.6 Desert Renewable Energy Conservation Plan Land Use Plan Amendment*

The Desert Renewable Energy Conservation Plan (DRECP) is designed to provide effective protection and conservation of desert ecosystems while allowing for the appropriate development of renewable energy projects. The DRECP Area contains both federal and non-federal California desert land. Some of these lands are designated as California Desert Conservation Areas. The federal portion of the plan area was released by the BLM as a Land Use Plan Amendment. The DRECP Land Use Plan Amendment supports the conservation goals of the DRECP and organizes land into ecoregions and subregions with specific management goals, objectives, allowable uses, and management actions for biological and cultural resources. The BLM designates Areas of Critical Environmental Concern where special management attention is needed to protect important historical, cultural, and scenic values, or fish and wildlife or other natural resources. The BLM also designates Renewable Energy Development Focus Areas which are on BLM-administered lands within which solar, wind, and geothermal renewable energy development and associated activities are allowable uses and that have been determined to be of low or lower resource conflict. The intent is to incentivize and streamline such development in these areas.

### *2.2.7 Conservation and Open Space Element*

Imperial County created the Conservation and Open Space Element plan to provide details and measures for management and preservation of biological resources as well as various other resources (i.e., cultural, soils, minerals). This plan focuses on protecting scarce resources and preventing wasteful exploitation, neglect, and destruction of California's natural resources. The plan outlines areas with sensitive habitat and sensitive species, also labelled "Resource Areas". Open space easements and protection of riparian habitat, rock outcrops, California fan palm oases, and wildlife corridors are also discussed in the plan. As it currently stands, the open space element follows CEQA guidelines with special focus on its scarce resources.

### *2.2.8 California Environmental Quality Act Significance Criteria*

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that

would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the Project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial 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. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

# 3.0 METHODS

## 3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review using the CDFW's California Natural Diversity Data Base (CNDDB; CDFW 2021a) and the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI; CNPS 2021) to determine the special-status plant and wildlife species that have been documented in the vicinity of the Project site. ECORP searched CNDDB and CNPSEI records within the Project site boundaries as depicted on the USGS 7.5-minute Westmorland West (Calipatria SW) and Kane Spring topographic quadrangles, and the surrounding topographic quadrangles: Kane Spring NE, Obsidian Butte, Niland, Westmorland, Superstition Mountain, Brawley NW, and Brawley. The CNDDB and CNPSEI contain records of reported occurrences of federally or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), or

other special-status species or habitat that may occur within or in the vicinity of the Project. Additional information was gathered from the following sources and includes, but is not limited to:

- USFWS Critical Habitat Portal and Information for Planning and Consultation (IPaC) Trust Resources List (USFWS 2021a);
- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) *Soil Survey Geographic Database* (NRCS 2021a) and *Web Soil Survey* (NRCS 2021b);
- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2021b);
- *Special Animals List* (CDFW 2021c);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *The Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009);
- BLM Special Status Plant Species (BLM 2015); and
- various online websites (e.g., CalFlora 2021).

A desktop review of the National Wetlands Inventory (USFWS 2021b) and the corresponding USGS topographic maps was also conducted to determine if there were any blue line streams or drainages in the Survey Area that might potentially fall under the jurisdiction of either federal or state agencies.

## 3.2 Field Survey

### *3.2.1 Small Unmanned Aircraft System Survey and Vegetation Mapping*

Due to the size of the area and limited road access, an initial survey of the parcel utilizing a sUAS was conducted to quickly assess current site conditions and gather high-resolution imagery. Upon arrival at the site, an initial field reconnaissance was conducted by the drone pilot to obtain an understanding of the site topography, access, vegetation densities, and staging areas for controlling the aerial flights. The drone was programmed to do a systematic flight over the land near the Imperial Valley substation and the land near the New River to collect high-resolution aerial photographs of these areas. The photos collected were then combined into a single orthomosaic image that was incorporated into mapping files in a Geographic Information System (GIS).

The information gathered from the reconnaissance survey, along with the sUAS/drone imagery and additional satellite aerial imagery (USDA 2018; Google Earth 2018; ESRI 2020) was used by biologists to accurately map the vegetation communities. Vegetation classifications were in accordance with *A Manual of California Vegetation* (Sawyer et al. 2009). Vegetation communities that did not fit within the Sawyer classification system were described following Holland (1986). Areas of the site that had already been graded, developed, or disturbed were mapped as such. Acreages of each vegetation community were calculated based on GIS data collected during the sUAS survey.

### *3.2.2 Biological Reconnaissance Survey*

The biological reconnaissance survey was conducted by walking the entire Survey Area to determine the vegetation communities and wildlife habitats on the Project site. Private property and inaccessible areas within the buffer were surveyed utilizing 8x42 binoculars. The biologists documented the plant and animal species present in the Survey Area and the conditions within the Survey Area were assessed for their potential to provide habitat for special-status plant and wildlife species, including those from the literature review. Data were recorded on submeter Global Positioning System (GPS) devices, data sheets, and maps. In instances where a special-status species was observed, the date, species, location and habitat, and GPS coordinates were recorded. The locations of special-status species observations were recorded using a handheld submeter GPS in North American Datum 1983, Universal Transverse Mercator coordinates, Zone 11S. Photographs were also taken during the survey to provide visual representation of the various vegetation communities within the Project site. The Project site was also examined to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife throughout the region.

Plant and wildlife species, including any special-status species that were observed during the survey, were recorded. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows that of *The American Ornithologists' Union (AOU) Checklist of North American Birds* (AOU 2021), the Society for the Study of Amphibians and Reptiles (SSAR 2017), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

### *3.2.3 Aquatic Resources Delineation*

An aquatic resources delineation was conducted by ECORP delineation specialists in conjunction with the biological reconnaissance survey, the results of which are presented under separate cover (ECORP 2022).

## 3.3 Potential for Occurrence Determinations

Using information from the literature review and observations in the field, a list of special-status plant and animal species that have potential to occur within the Survey Area was generated. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515; and
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

Special-status species reported for the region in the literature review or for which suitable habitat occurs on the Survey Area were assessed for their potential to occur within the Survey Area based on the following guidelines:

**Present:** The species was observed onsite during a site visit or focused survey.

**High:** Habitat (including soils and elevation factors) for the species occurs within the Survey Area and a known occurrence has recently been recorded (within the last 20 years) within five miles of the area.

**Moderate:** Habitat (including soils and elevation factors) for the species occurs within the Survey Area and a documented observation occurs within the database search, but not within five miles of the area; a historic documented observation (more than 20 years old) was recorded within five miles of the Survey Area; or a recently documented observation occurs within five miles of the area and marginal or limited amounts of habitat occurs in the Project site.

**Low:** Limited or marginal habitat for the species occurs within the Survey Area and a recently documented observation occurs within the database search, but not within five miles of the area; a historic documented observation (more than 20 years old) was recorded within five miles of the Survey Area; or suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search.

**Presumed Absent:** Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist onsite; or the known geographic range of the species does not include the Survey Area.

**Note:** Location information on some special-status species may be of questionable accuracy or unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that particular species.

# 4.0 RESULTS

The results of the literature review and field surveys, including site characteristics, vegetation communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below.

## 4.1 Literature Review

### *4.1.1 Special-Status Plants and Wildlife*

Special-status plants and wildlife species reported for the region in the literature review or for which suitable habitat occurs were evaluated for their potential to occur within the Project Area or in the buffer areas within the Survey Area where indirect impacts could occur. Of all available records, a total of 11 special-status plant species and 30 special-status wildlife species were identified as those with the potential for occurrence within the vicinity of the Project Area (Attachments B and C).

### *4.1.2 U.S. Fish and Wildlife Service Designated Critical Habitat*

The Project Area is not located within any USFWS-designated critical habitat. The closest designated critical habitat is for Peirson's milk-vetch (*Astragalus magdalenae* var. *peirsonii*) located approximately 24 miles to the northeast of the Project Area, and desert tortoise (*Gopherus agassizii*) critical habitat located approximately 34 miles to the northeast of the Project Area.

## 4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on September 29 to 30, 2020 and August 3 to 5, 2021, by ECORP biologists Christina Clark, Greg Hampton, Caroline Garcia, and Christina Torres. Summarized below are the results of the biological reconnaissance survey, including site characteristics, plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors). Weather conditions during the survey are summarized in Table 1.

**Table 1. Weather Conditions During the Survey**

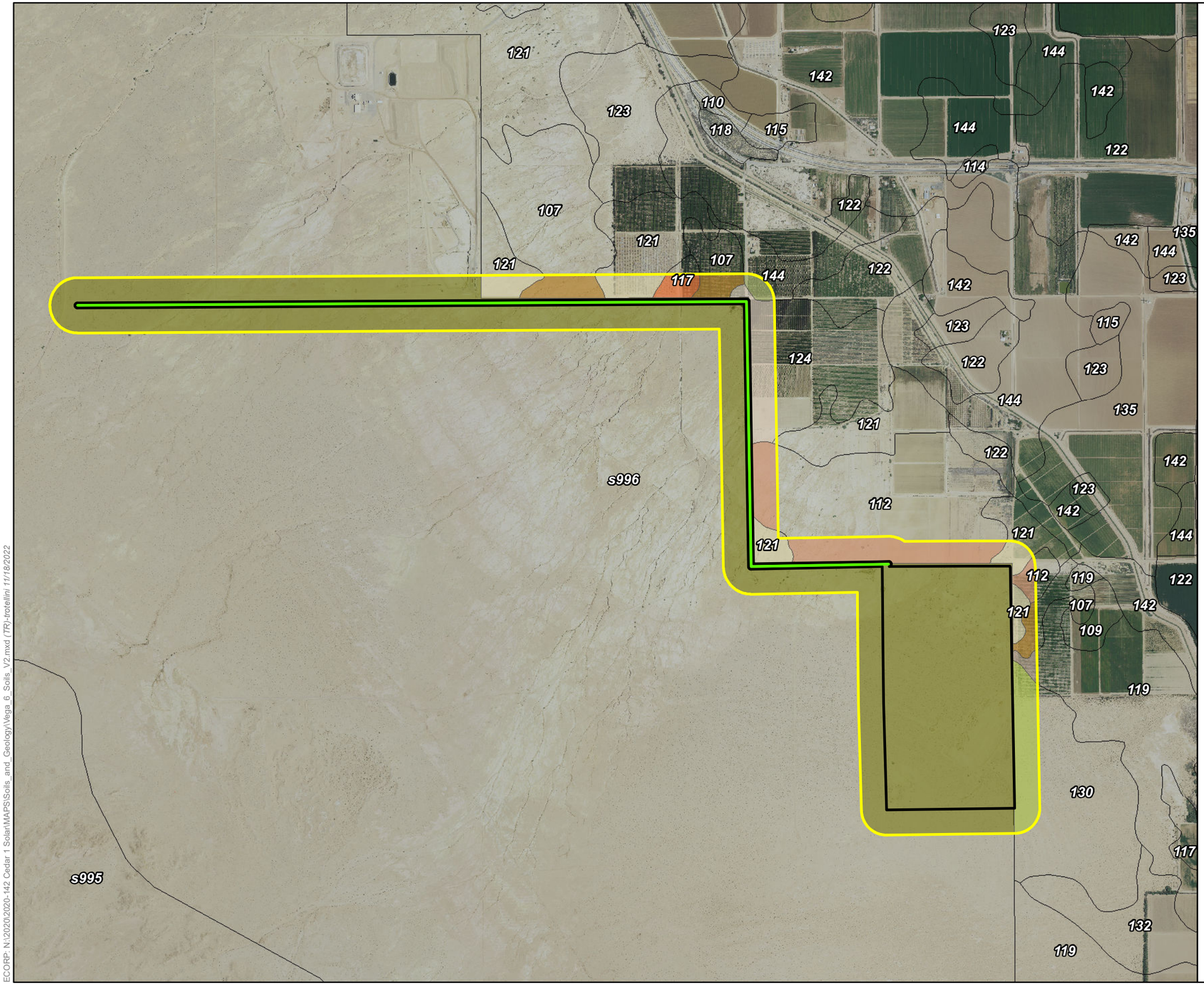
| Date | Time | | Temperature (˚F) | | Cloud Cover (%) | | Wind Speed (mph) | |
|---|---|---|---|---|---|---|---|---|
| | Start | End | Start | End | Start | End | Start | End |
| 09/29/2020 | 0635 | 1425 | 70 | 102 | 0 | 0 | 3-5 | 3-5 |
| 09/30/2020 | 0630 | 1600 | 72 | 108 | 0 | 0 | 2-3 | 0-3 |
| 8/3/2021 | 0645 | 1350 | 87 | 115 | 0 | 0 | 0-3 | 3-5 |
| 8/4/2021 | 0530 | 1400 | 86 | 119 | 0 | 0 | 0-4 | 3-5 |
| 8/5/2021 | 0530 | 1023 | 83 | 99 | 0 | 0 | 8-13 | 3-8 |

### *4.2.1 Property Characteristics*

The Project Area consists of vacant, undeveloped land, and is bordered by open space/BLM land to the west and south, and active agriculture to the north and east. The Project Area contains creosote bush scrub, a good portion of which has been disturbed by substantial amounts of trash dumping, bullet casings, and unauthorized off-highway vehicle (OHV) use. The gen-tie line traverses mostly undeveloped land. Representative site photographs are included in Attachment A.

Topography throughout the parcel is relatively flat, with vegetated mounds present throughout the northern portion of the parcel and man-made berms present at the southern portion of the parcel. A soils analysis search was conducted using NRCS soil survey data (NRCS 2021a). The Project falls within portions of the Anza Borrego Area soil survey in which there is no digital data available therefore the Digital General Soil Map of the United States database (STATSGO2; NRCS 2021b) was searched for this area.

Of the data available, 15 soil series were identified within the Survey Area (Figure 3. *Natural Resources Conservation Service Soil Types*). These include:




ECORP: N:\2020\2020-142 Cedar 1 Solar\MAPS\Soils_and_Geology\Vega_6_Soils_V2.mxd (TR)-trotellini 11/18/2022

Map Date: 8/12/2021

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Scale in Feet
0 2,000

**Figure 3. Natural Resources Conservation Service Soil Types**

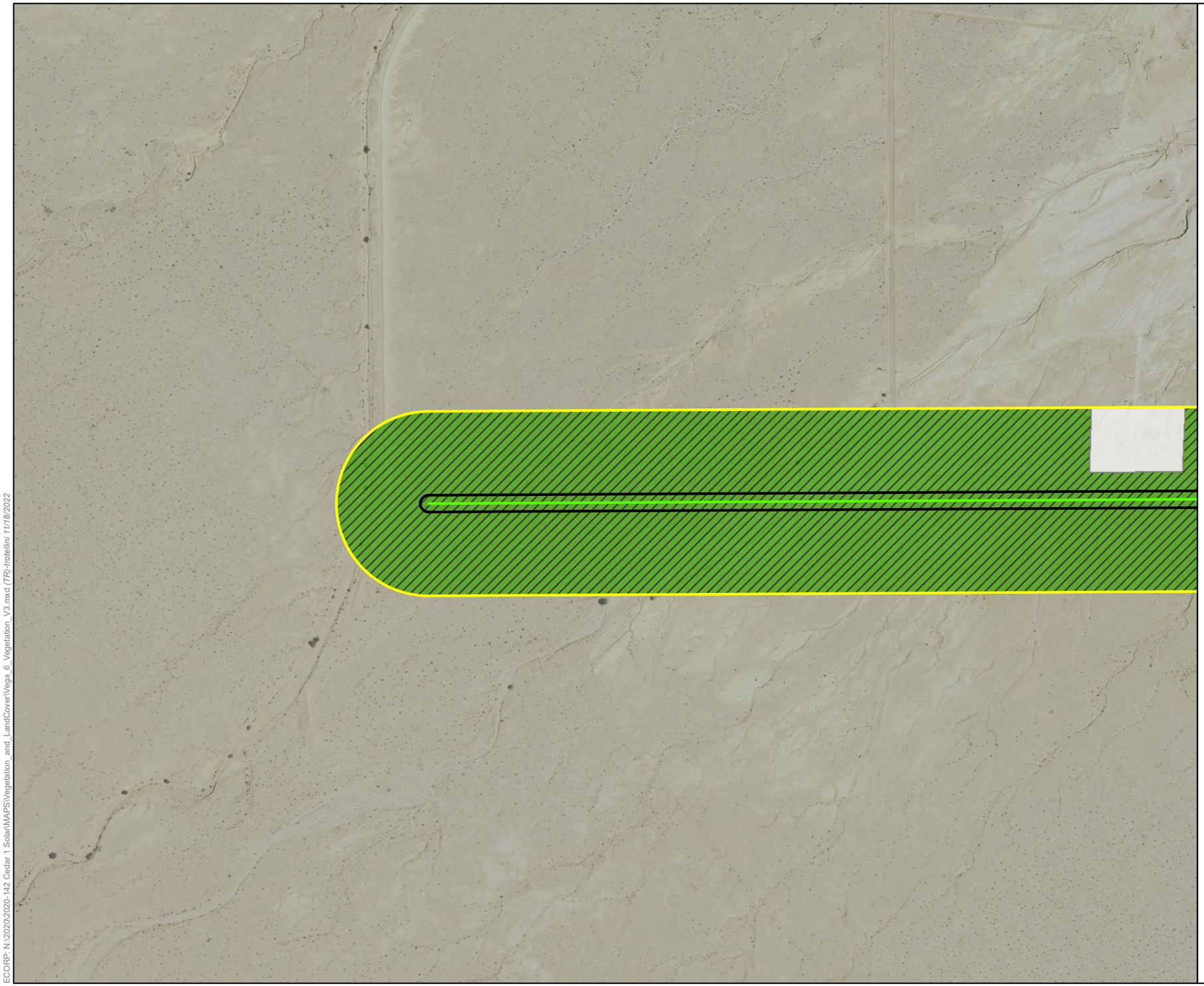
*2020-145 Vega SES 6*

- 107 – Glenbar complex
- 109 – Holtville silty clay
- 112 – Imperial silty clay
- 117 – Indio loam
- 118 – Indio loam, wet
- 119 – Indio-Vint complex
- 121 – Meloland fine sand
- 122 – Meloland very fine sandy loam, wet
- 123 – Meloland and Holtville loams, wet
- 124 - Niland gravelly sand
- 130 - Rositas sand, 0 to 2 percent slopes
- 135 - Rositas fine sand, wet, 0 to 2 percent slopes
- 142 – Vint loamy very fine sand, wet
- 144- Vint and Indio very fine sandy loams, wet
- s996 – Vint-Meloland-Indio

The Niland gravelly sand (124) map units contain hydric minor components (NRCS 2021c). A summary of characteristics based on official series descriptions for each of the soil series mapped is provided under separate cover in the aquatic resources delineation report (ECORP 2022).

### *4.2.2 Vegetation Communities/Land Use*

The majority of the Project Area consists of creosote bush scrub, disturbed creosote bush scrub, and agriculture. The location of each vegetation community and land cover in the Survey Area is described in detail below and presented on Figure 4. *Vegetation Communities and Land Cover*. Acreage of each habitat and vegetation community in the Project Area, where direct impacts would occur, are shown in Table 2. Representative photographs of the habitats within the Survey Area are included in Attachment A.



**Map Features**

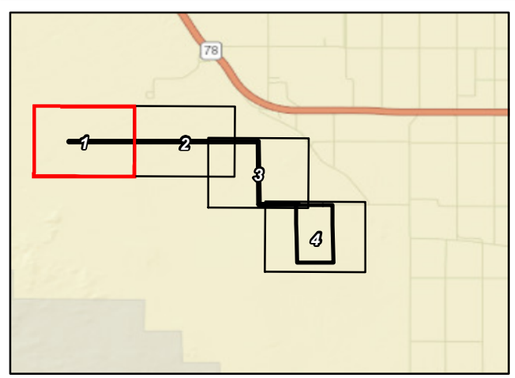
- Project Area
- 500' Buffer
- Vega 6 Gen-Tie

Vegetation and Land Cover Types

- Disturbed Creosote Bush Scrub
- Disturbed

Sources: NAIP (2020)

*Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community*

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Map Date: 8/31/2021

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Scale in Feet
0 600

**Figure 4. Vegetation Communities and Land Cover**
**Sheet 1 of 4**
*2020-145 Vega SES 6*

**Map Features**

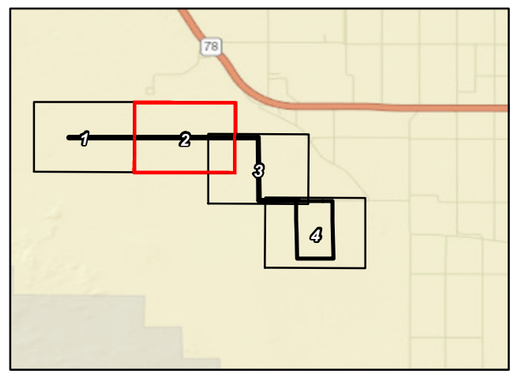
- Project Area
- 500' Buffer
- Vega 6 Gen-Tie

Vegetation and Land Cover Types

- Active Agriculture
- Disturbed Creosote Bush Scrub
- Disturbed
- Urban/Developed
- Urban/Developed - Dirt Road

Sources: NAIP (2020)

*Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community*

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Map Date: 8/31/2021

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Scale in Feet
0 600

**Figure 4. Vegetation Communities and Land Cover**
**Sheet 2 of 4**
*2020-145 Vega SES 6*

**Map Features**

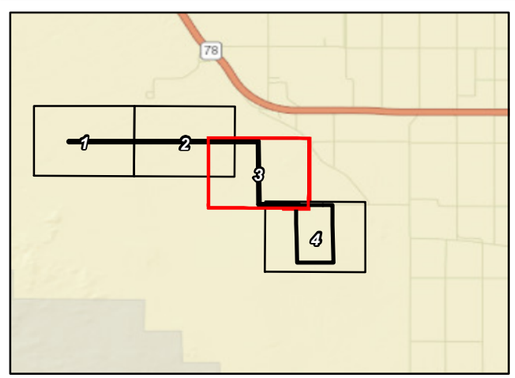
- Project Area
- 500' Buffer
- Vega 6 Gen-Tie

Vegetation and Land Cover Types

- Active Agriculture
- Fallow Agriculture
- Creosote Bush Scrub
- Disturbed Creosote Bush Scrub
- Disturbed Tamarisk Thickets
- Disturbed
- Urban/Developed - Dirt Road

Sources: NAIP (2020)

*Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community*

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Map Date: 8/31/2021

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Scale in Feet
0 600

**Figure 4. Vegetation Communities and Land Cover**
**Sheet 3 of 4**
*2020-145 Vega SES 6*

**Map Features**

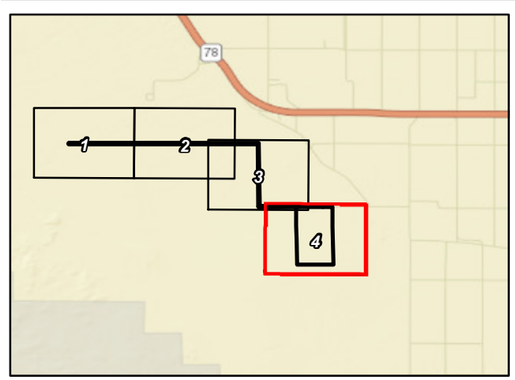
- Project Area
- 500' Buffer
- Vega 6 Gen-Tie

Vegetation and Land Cover Types

- Active Agriculture
- Fallow Agriculture
- Creosote Bush Scrub
- Disturbed Creosote Bush Scrub
- Disturbed Fourwing Saltbush Scrub
- Disturbed Tamarisk Thickets
- Disturbed
- Urban/Developed - Dirt Road

Sources: NAIP (2020)

*Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community*

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Map Date: 8/31/2021

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Scale in Feet
0 600

**Figure 4. Vegetation Communities and Land Cover**
**Sheet 4 of 4**
*2020-145 Vega SES 6*

| Table 2. Vegetation Communities and Land Cover Types in Project Area | |
|---|---|
| **Vegetation Communities and Land Cover Types** | **Acres** |
| Active Agriculture | 2.088 |
| Fallow Agriculture | 0.122 |
| Creosote Bush Scrub | 183.163 |
| Disturbed Creosote Bush Scrub | 139.541 |
| Disturbed Tamarisk Thickets | 1.948 |
| Disturbed | 0.454 |
| Urban/Developed - Dirt Roads | 5.081 |
| **Total** | **332.398** |

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

Creosote bush scrub is the most characteristic vegetation of the California desert and is found on alluvial fans, bajadas, upland slopes, and washes. Creosote bush scrub is dominated by a nearly monotypic stand of creosote bush with an open canopy and an herbaceous layer of seasonal annuals and perennials. This community is dominant in the parcel and western portion of the gen-tie alignment. This community has sparser vegetation overall. Other species that were observed within this community included mesquite (*Prosopis* sp.), burrobush (*Ambrosia dumosa*), narrow leaved cryptantha (*Cryptantha angustifolia*), alkali goldenbush (*Isocoma acradenia*), velvet turtleback (*Psathyrotes ramosissima*), cryptantha sp. (*Cryptantha* sp.), brittlebush (*Encelia farinosa*). and desert plantain (*Plantago ovata*). Earthen mounds dominated by mesquite were also present within this vegetation community in the northeastern portion of the parcel.

### Disturbed Creosote Bush Scrub (Disturbed *Larrea tridentata* Shrubland Alliance)

Disturbed creosote bush scrub is creosote bush scrub that has been previously altered. On the Project, this vegetation cover is characterized as sparser, and in some areas completely lacked vegetation other than a few creosote bush shrubs. Other plant species observed included scattered individuals of tamarisk (*Tamarix* sp.) within ephemeral drainages.

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

Tamarisk thickets are characterized by a weedy monoculture of tamarisk. This habitat is typically in ditches, washes, rivers, arroyo margins, lake margins, and other watercourses. Disturbed tamarisk thickets are tamarisk thickets that have been previously altered. In the Project Area, this vegetation cover is characterized as sparser, and in some areas completely lacked vegetation other than a few tamarisk shrubs. Other plant species observed included scattered individuals of alkali goldenbush.

## Other Land Cover Types

### *Active Agriculture*

Active agriculture consists of row crops that include planted, typically monotypic rows of crops of annual and perennial species with open space between rows. Species composition frequently changes by season and year. Row crops often occur in upland areas with high soil quality, or floodplains, and are almost always artificially irrigated. This land cover was observed to the east of the parcel. Common crops observed were alfalfa (*Meticago sativa*), lemon (*Citrus* x *limon*), date palm (*Phoenix dactylifera*), and squash (*Cucurbita* sp.).

### *Fallow Agriculture*

Fallow agricultural lands include remnant signs of row crops with open space between rows. Agricultural lands often occur in upland areas with high soil quality, or floodplains, and are almost always artificially irrigated. This land cover was observed periodically along the gen-tie alignment and north of the proposed solar field parcel. These areas were adjacent to active agriculture and consisted primarily of tilled land with no vegetation. One area of fallow agriculture appeared to be vegetated with remnant sorghum (*Sorghum* sp.).

### *Disturbed*

Disturbed land includes areas where the native vegetation community has been heavily influenced by human actions, such as grading, trash dumping, equipment staging, and OHV use, but lack development. Disturbed land is not a vegetation classification, but rather a land cover type and is not restricted by elevation. Within the Project Area, the disturbed lands consisted primarily of bare ground with quailbush, arrow weed, saltgrass, hairy crab grass (*Digitaria sanguinalis*), Mediterranean grass, mustard, and Saharan mustard (*Brassica tournefortii*) at low cover. Some area exhibited regrowth of native species such as creosote bush.

### *Urban/Developed*

Urban/Developed areas do not constitute a vegetation classification, but rather a land cover type. Areas mapped as developed have been constructed upon or otherwise physically altered to an extent that natural vegetation communities are no longer supported. This land cover consisted of private residences and farming operations (not including the agricultural fields) and compacted dirt roads.

## Vegetation Communities within the Survey Area

Additional vegetation communities were observed within the buffer, but not within the Project Area. These communities are described in detail below. No impacts to these vegetation communities are expected as a result of Project-related activities.

## Disturbed Fourwing Saltbush Scrub (Disturbed *Atriplex canescens* Shrubland Alliance)

Fourwing saltbush scrub is characterized by fourwing saltbush as a dominant within the shrub layer. The shrub canopy is open or intermittent, while the herbaceous layer can be variable, with seasonal herbs and nonnative grasses. It is found within playas, shores, lake deposits, dissected alluvial fans, or channel beds.

Disturbed fourwing saltbush scrub is fourwing saltbush scrub that has been previously altered. In the Survey Area, this vegetation cover is characterized as sparser, and in some areas completely lacked vegetation other than a few fourwing saltbush shrubs. Other plant species observed included scattered individuals of alkali goldenbush.

### *4.2.3 Wildlife Observed*

The Project Area provided disturbed monotypic habitat for wildlife species; overall bird activity was observed to be low during the surveys. Two reptile species, the zebra-tailed lizard (*Callisaurus draconoides*) and common side-blotched lizard (*Uta stansburiana*) were observed during the surveys.

Twenty-one bird species were observed during the reconnaissance survey: Gambel's quail (*Callipepla gambelii),* turkey vulture (*Cathartes aura),* California horned lark (*Eremophila alpestris* ssp*. actia),* peregrine falcon (*Falco peregrinus),* greater roadrunner (*Geococcyx californianus*), black phoebe (*Sayornis nigricans),* European starling (*Sturnus vulgaris),* mourning dove (*Zenaida macroura),* white-crowned sparrow (*Zonotrichia leucophry*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus hudsonius*), Abert's towhee *(Melozone aberti*), great egret (*Ardea alba*), green heron (*Butorides virescens*), white-winged dove (*Zenaida asiatica*), northern mockingbird (*Mimus polyglottos*), killdeer (*Charadrius vociferus*), cliff swallow (*Petrochelidon pyrrhonota*), Eurasian collared-dove (*Streptopelia decaocto*), loggerhead shrike (*Lanius ludovicianus*) and verdin (*Auriparus flaviceps*). Five mammal species were observed, or signs of the species were observed: black-tailed jackrabbit (*Lepus californicus),* round-tailed ground squirrel (*Xerospermophilus tereticaudus*), desert cottontail (*Sylvilagus audubonii)* raccoon (*Procyon lotor*), and coyote (*Canis latrans*). Native ant species such as harvester ants were also observed within the Project Area.

## 4.3 Special-Status Species Assessment

The literature review resulted in 11 special-status plant and 30 special-status wildlife species that have historically been recorded in the vicinity of the Project or that are highly associated with habitat that occurs within the Project Area. The majority of the Project Area consists of creosote bush scrub and disturbed creosote bush scrub habitat. Special-status plants were evaluated for their potential to occur within the Project limits where impacts could occur. Special-status wildlife were evaluated for their potential to occur within the Survey Area, a broader area that includes the Project Area and buffer, where direct or indirect impacts could occur. Potential for Occurrence tables are included in Attachments B and C.

### *4.3.1 Plants*

Twelve special-status plant species have been recorded within five miles of the Project Area, according to the CNDDB (CDFW 2021a), IPaC (USFWS 2021a), and CNPSEI (CNPS 2021). Of all available records, 11 special-status plant species were identified as having the potential for occurrence within the vicinity of the Project Area. Descriptions of the CNPS designations, also known as California Rare Plant Rankings (CRPR), are found in Table 3 and a list of the special-status plant species identified in the literature review is presented below (CNPS 2021).

**Table 3. CNPS Status Designations**

| List Designation | Meaning |
|---|---|
| 1A | Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere |
| 1B | Plants Rare, Threatened, or Endangered in California and Elsewhere |
| 2A | Plants Presumed Extirpated in California, But Common Elsewhere |
| 2B | Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere |
| 3 | Plants about which we need more information; a review list |
| 4 | Plants of limited distribution; a watch list |
| List 1B, 2, and 4 extension meanings: | |
| .1 | Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat) |
| .2 | Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat) |
| .3 | Not very threatened in California (less than 20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known) |

Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code (California Department of Fish and Game [CDFG] 1984). This interpretation is inconsistent with other definitions.

### *Plant Species with Low Potential to Occur*

The following species were found to have a low potential to occur in the Project Area because limited habitat for the species occurs within the Project Area and a known occurrence has been reported in the database or suitable habitat strongly associated with the species occurs within the Project Area, but no records were found within five miles of the site:

- Salton milk-vetch (*Astragalus crotalariae*), CRPR 4.3
- Harwood's milk-vetch (*Astragalus insularis* var. *harwoodii*), CNPS 2B.2
- gravel milk-vetch (*Astragalus sabulonum*), CRPR 2B.2
- Emory's crucifixion-thorn (*Castela emoryi*), CRPR 2B.2
- Abrams' spurge (*Euphorbia abramsiana*), CRPR 2B.2
- flat-seeded spurge (*Euphorbia platysperma*), CRPR 1B.2
- ribbed cryptantha (*Johnstonella costata*), CRPR 4.3
- Torrey's box-thorn (*Lycium torreyi*), CRPR 4.2
- sand food (*Pholisma sonorae*), CRPR 1B.2

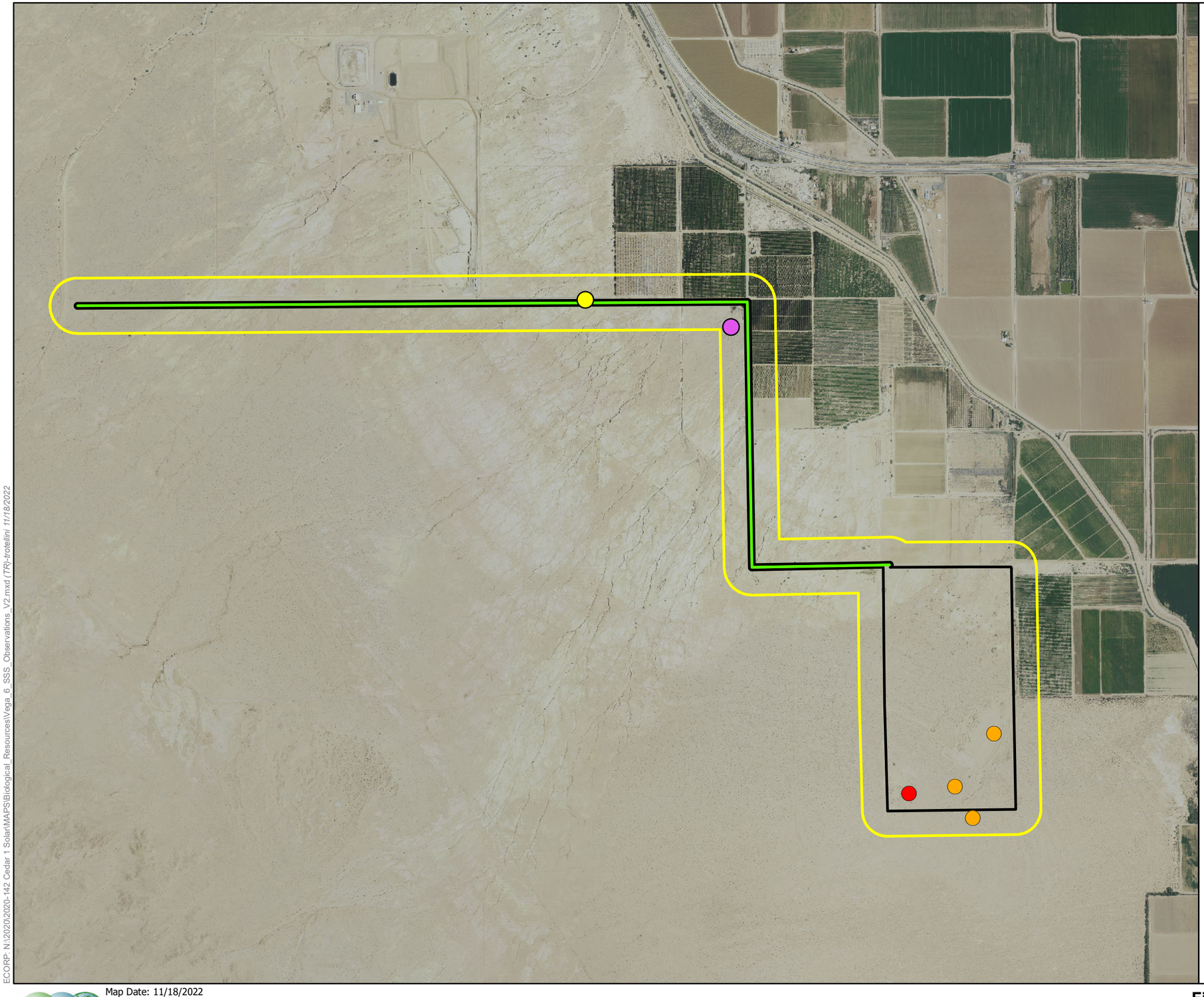
- Thurber's pilostyles (*Pilostyles thurberi*), CRPR 4.3
- Orcutt's woody-aster (*Xylorhiza orcuttii*), CRPR 1B.2

### *4.3.2 Wildlife*

The literature search documented 30 special-status wildlife species in the vicinity of the Project Area, four of which are federally or state listed. Of the 30 special-status wildlife species identified in the literature review, four were found to be present within the Survey Area, four were found to have a high potential to occur, four were found to have a moderate potential to occur, and eight were found to have a low potential to occur; the remaining 10 species are presumed absent from the Survey Area. Frequent mechanical disturbances onsite and the presence of anthropogenic influences onsite likely preclude these species from occurring on or adjacent to the site. Descriptions of the federal and state wildlife designations are found in Table 4, and a brief natural history and discussion of the special-status wildlife species that have a high or moderate potential to occur within the Survey Area is provided below. Special-status wildlife species observed during the reconnaissance survey are depicted on Figure 5. *Special-Status Species Observations*.

**Table 4. Wildlife Status Designations**

| List Designation | Meaning |
|---|---|
| **Federal Designation** | **Jurisdiction under USFWS** |
| END | Federally listed as Endangered |
| THR | Federally listed as Threatened |
| CAN | Federal Candidate Species |
| FSC | Federal Species of Concern |
| FPD | Federal Proposed for Delisting |
| BCC | Bird of Conservation Concern |
| **Federal Designation** | **Jurisdiction under BLM** |
| S | BLM Sensitive |
| **State Designation** | **Jurisdiction under CDFW** |
| END | State listed as Endangered |
| THR | State listed as Threatened |
| SSC | California Species of Special Concern |
| FP | Fully Protected Species |
| WL | Watch List |



**Map Features**

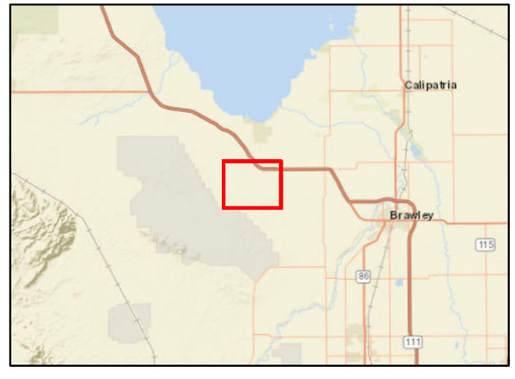
- Project Area
- 500' Buffer
- Vega 6 Gen-Tie

Special Status Species Observations

- Loggerhead Shrike (*Lanius ludovicianus*)
- Northern Harrier (*Circus hudsonius*)
- Horned Lark (*Eremophila alpestris*)
- Peregrine Falcon (*Falco peregrinus*)

Sources: NAIP (2020)

*Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community*

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Map Date: 11/18/2022

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Scale in Feet
0 2,000

**Figure 5. Special-Status Species Observations**

*2020-145 Vega SES 6*

### Special-Status Wildlife Species Present

The following species were observed on the site during the reconnaissance survey:

- California horned lark is a CDFW WL species. It occurs in bare, open areas dominated by low vegetation or widely scattered shrubs, including prairies, deserts, and plowed fields. It nests in a hollow on the ground. The creosote bush scrub and disturbed creosote bush scrub throughout the site and within the buffer provides both foraging and nesting potential habitat. Approximately 12 individuals were observed foraging within the disturbed creosote bush scrub and disturbed areas of the southern portion of the parcel. No CNDDB records occur within five miles of the site.
- Loggerhead shrike is a CDFW SSC. This species prefers open country with scattered shrubs and trees. They frequent agricultural fields, abandoned orchards, desert scrublands, and riparian areas. The site provides both foraging and nesting habitat. One individual was observed perching and vocalizing on tamarisk alongside a dirt irrigation canal adjacent to agricultural fields in the Survey Area. No CNDDB records occur within five miles of the site.
- Northern harrier is a USFWS Bird of Conservation Concern (BCC) and a CDFW SSC. This species is typically found in open habitats with dense ground cover including grasslands, agricultural fields, and marshes. Northern harriers nest on the ground, preferring wetland habitat for cover. The site provides foraging habitat but does not provide nesting habitat. One individual was observed during the habitat assessment near the proposed gen-tie line. No CNDDB records occur within five miles of the site.
- Peregrine falcon is a CDFW Fully Protected species. This species inhabits a wide range of habitats from wetlands, deserts, forests and islands. In California, breeding habitats include a variety of locations from cliffs in uninhabited areas to tall buildings or bridges within the urban landscape. The site provides foraging habitat but does not provide nesting habitat. One individual was observed flying over the creosote bush scrub habitat of the southern end of the solar field parcel. No CNDDB records occur within five miles of the site.

### Special-Status Wildlife Species with a High Potential to Occur

Four species were found to have high potential to occur within the Project Area due to the presence of suitable habitat for the species occurring on the site and a known occurrence that has been recorded within five miles of the Project Area:

- Flat-tailed horned lizard (*Phrynosoma mcallii*) is a CDFW SSC, a BLM sensitive species, and an Imperial County Species of Conservation Focus. This species is most commonly found on sandy flats and valleys within desert scrub habitat with little or no windblown sand. They can also be found on salt flats and gravelly soils. The creosote bush scrub habitat provides suitable habitat for the flat-tailed horned lizard. Three recent CNDDB records of six total occur within five miles of the site with the closest being approximately 3.5 miles south from 2009. None were observed during the reconnaissance survey, but suitable habitat was confirmed. Harvester ants (*Pogonomyrmex* sp.) were present, which are a food source for flat-tailed horned lizard.

- Black-tailed gnatcatcher (*Polioptila melanura*) is a CDFW WL species. This species remains in pairs all year, defending permanent territories. Black-tailed gnatcatchers prefer dry washes or desert brush with varied growth of mesquite, acacias, and paloverdes, but are also known to inhabit tamarisk scrub. The creosote bush scrub, disturbed creosote bush scrub, and disturbed tamarisk thicket habitats are suitable for this species. One historic CNDDB record occurs within five miles of the site.

- Burrowing owl (*Athene cunicularia*) is a USFWS BCC, a CDFW SSC, a BLM sensitive species, and Imperial County Species of Conservation Focus. It is typically found in dry open areas with few trees and short grasses; it is also found in vacant lots near human habitation. It uses uninhabited mammal burrows for roosts and nests, often in close proximity to ground squirrel colonies. It primarily feeds on large insects and small mammals but will also eat birds and amphibians. The creosote bush scrub, disturbed creosote bush scrub, disturbed areas, berms of the irrigation canals, and agricultural areas provides potential habitat throughout the Survey Area. Ground squirrel burrows that could be utilized by owls were detected within the parcel. No owl sign was detected at the burrow entrances. Twenty-five recent CNDDB records occur within five miles of the site with the closest being less than one mile away.

- Palm Springs pocket mouse (*Perognathus longimembris* ssp. *bangsi*) is a CDFW SSC and a BLM sensitive species. It inhabits a variety of habitats including creosote bush scrub, desert scrub, and grasslands, generally occurring on loosely packed or sandy soils with sparse to moderately dense vegetative cover. One recent CNDDB record occurs approximately 2.75 miles southeast of the site. It was found in 2007 where the habitat consisted of creosote bush scrub with very sandy soils. Small rodent burrows were observed within creosote bush scrub habitat onsite during biological surveys. There is suitable habitat and soils within the creosote bush scrub of the parcel and buffer.

### Special-Status Wildlife Species with a Moderate Potential to Occur

Four species were found to have moderate potential to occur on the Project site because habitat (including soils and elevation factors) for the species occurs on the Project site and a known occurrence exists within the database search, but not within five miles of the Project; or a known occurrence exists within five miles of the site and marginal or limited amounts of habitat occurs on the Project site:

- Mountain plover (*Charadrius montanus*) is a USFWS BCC, a CDFW SSC, and a BLM sensitive species. This species is most commonly found in grassy semi-desert with scattered saltbush, sage, prickly pear, and yucca. It is also found in fallow or recently plowed agricultural fields and in overgrazed landscapes that mimic their natural shortgrass habitat. Five recent CNDDB records occur within five miles of the site with one record from 2011 less than 2 miles from the site. Agricultural lands along the parcel and gen-tie lines provide suitable habitat for this species.

- Crissal thrasher (*Toxostoma crissale*) is a CDFW SSC and a BLM sensitive species. It inhabits desert scrub and riparian brush with dense mesquite thickets often near streams or washes. The tamarisk thickets well as creosote bush scrub provides suitable habitat for this species. Two historic CNDDB records within five miles of the site, one of which overlaps with the gen-tie line.

- Yuma hispid cotton rat (*Sigmodon hispidus eremicus*) is a CDFW SSC. This species is generally associated with mesic habitats near drainage ditches, streams, and sloughs but also occurs in open fields or on the borders of open fields where there is dense grass habitat or agricultural fields. There is potential for this species to occur within vegetated agricultural irrigation channels that run adjacent to the gen-tie line and agriculture fields within the buffer where they can utilize runways through dense herbaceous growth along the channels. Two recent CNDDB records occur within five miles of the site from 2008 with the closest being approximately 2 miles northeast of the Project Area. This species was found in a lateral drain canal.
- American badger (*Taxidea taxus*) is a CDFW SSC. It inhabits open habitats with friable soil such as grasslands, brushlands with sparse ground cover, open chaparral, and sometimes riparian zones. One recent CNDDB record from 2017 occurs within five miles of the site on military land. It was noted to be within creosote bush habitat. Moderately suitable habitat exists within the creosote bush scrub habitats of the parcel and gen-tie line.

### Wildlife Species with Low Potential to Occur

Eight species were found to have a low potential to occur on the Project site because limited habitat for the species occurs on the site and a known occurrence has been reported in the database or suitable habitat strongly associated with the species occurs on the site, but no records were within five miles of site or were not found in the database search:

- Colorado Desert fringe-toed lizard (*Uma notata*), a CDFW SSC and a BLM sensitive;
- Gila woodpecker (*Melanerpes uropygialis*), USFWS BCC, state listed (endangered), and BLM sensitive;
- California black rail (*Laterallus jamaicensis* ssp. *coturniculus*), state listed (threatened), CDFW FP and BLM sensitive;
- Yuma Ridgway's rail (*Rallus obsoletus* ssp. *yumanensis*), federally listed (endangered), state listed (threatened), and CDFW FP;
- white-faced ibis (*Plegadis chihi*), CDFW WL;
- short-eared owl (*Asio flammeus*), USFWS BCC and CDFW SSC;
- California leaf-nosed bat (*Macrotus californicus*), CDFW SSC; and
- western yellow bat (*Lasiurus xanthinus*), CDFW SSC.

### Wildlife Species Presumed Absent

The following 10 species are presumed absent from the Project due to the lack of suitable habitat:

- desert pupfish (*Cyprinodon macularius*), federally listed (endangered) and state listed (endangered);
- black skimmer (*Rynchops niger*), USFWS BCC and CDFW SSC;

- gray-headed junco (*Junco hyemalis* ssp. *caniceps*), CDFW WL;
- brown pelican (*Pelecanus occidentalis*), CDFW FP, and BLM sensitive;
- western mastiff bat (*Eumops perotis* ssp. *californicus*), CDFW SSC and BLM sensitive;
- pocketed free-tailed bat (*Nyctinomops femorosaccus*), CDFW SSC;
- big free-tailed bat (*Nyctinomops macrotis*), CDFW SSC;
- Mexican long-tongued bat (*Choeronycteris mexicana*), CDFW SSC;
- pallid bat (*Antrozous pallidus*), CDFW SSC and BLM sensitive; and
- Townsend's big-eared bat (*Corynorhinus townsendii*), CDFW SSC and BLM sensitive.

## 4.4 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges, for example. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. Obviously, the nature of corridor use and wildlife movement patterns varies greatly among species.

The Project Area was assessed for its ability to function as a wildlife corridor. The parcel and western portion of the gen-tie line currently provide wildlife movement opportunities because they consist of open and relatively unimpeded land. However, it would not be considered a wildlife movement corridor that would need to be preserved to allow wildlife to move between important natural habitat areas due to the lack of conserved natural lands in the vicinity and the Project's proximity to agricultural areas. The Project Area is also mostly surrounded by additional open unimpeded land, functioning as a single contiguous block of habitat rather than a corridor. The area within the Project boundaries is exposed and does not contain any major features that would be considered critical movement corridors for wildlife. Although the dirt roads and desert washes located within the Project boundaries are likely utilized by wildlife moving through the area, these features would not be considered necessary linkages between conserved natural habitat areas or critical for wildlife movement because of the nearby open space surrounding the Project. Existing development in the vicinity of the Project and presence of anthropogenic uses throughout the area (e.g., trash dumping, OHV use) further limit ability for wildlife to use the Project for travel and regional movement.

# 5.0 PROJECT IMPACTS

Implementation of the Project has potential to affect agriculture, creosote bush scrub, disturbed creosote bush scrub, fallow agricultural land, and disturbed tamarisk thickets. These communities may provide suitable nesting and foraging habitat for passerines, including black-tailed gnatcatcher and loggerhead shrike; raptors including northern harrier, peregrine falcon, and burrowing owl; raptor foraging habitat; and habitat for flat-tailed horned lizard and Palm Springs pocket mouse. The following recommendations would be required to determine if the Project would result in significant impacts to vegetation communities, special-status plant and wildlife species, jurisdictional waters, and wildlife movement corridors.

## *5.1.1 Special-Status Species*

### Special-Status Plants

The literature review identified 11 special-status plant species that could occur in the vicinity of the Project Area but, due to lack of suitable habitat and soils as well as the site's current condition of being heavily disturbed and developed, all of the special-status plant species identified in the literature review were determined to have low potential of occurring within the Project Area. None of these species are federally or state listed. If these special-status plant species were to be present on the site, they would likely occur in low numbers due to the limiting factors listed above (anthropogenic and mechanical disturbances, urban development, and lack of connectivity) and Project-related impacts would not contribute to the overall decline of populations for these species and therefore not considered significant.

### Special-Status Wildlife

The literature review identified 30 special-status wildlife species that occur near the Project site, but 10 of the 30 special-status wildlife species identified in the literature review were presumed absent from the Project site due to the lack of habitat or the Project occurring outside the known range of these species. Construction of the Project will not contribute to the overall decline of any of the special-status wildlife species that have been presumed absent from the site, and no impacts to these species are anticipated to result from this Project.

Four special-status wildlife species were found to be present within the Project Area and adjacent habitat: California horned lark, loggerhead shrike, northern harrier, and peregrine falcon. These species were observed within a variety of habitats within the Survey Area. Foraging habitat for a number of raptor species and breeding habitat for numerous passerine species that are protected by the MBTA occurs throughout the Project Area. The Project Area provides nesting habitat for ground-nesting species as well as species that nest in various scrub habitats. Direct impacts to nesting avian species include injury, mortality, loss of young, and nest failure. Indirect impacts include loss of foraging and nesting habitat for passerine and raptor species, increase in noise and human activities, and potential introduction of invasive or nonnative species. Implementation of **BIO-3**, **BIO-5**, and **BIO-7** are recommended to minimize, avoid, and mitigate for potential impacts.

Four special-status wildlife species were found to have a high potential to occur within the Project Area and adjacent habitats: flat-tailed horned lizard, black-tailed gnatcatcher, burrowing owl, and Palm Springs pocket mouse. The creosote bush scrub in the Project Area and buffer provides habitat for flat-tailed horned lizard. Implementation of **BIO-1** and **BIO-7** are recommended to minimize and mitigate for potential impacts. The various scrub habitats and tamarisk thickets provides foraging and nesting habitat for black-tailed gnatcatcher. Implementation of **BIO-3**, **BIO-5**, and **BIO-7** are recommended to minimize, avoid, and mitigate for potential impacts.

Burrowing owl has a high potential to occur on the Project Area and buffer due to the number of previously documented occurrences and suitable habitat on the Project. Suitable burrowing owl burrows and burrow structures were identified during the survey. Although no burrowing owl were observed or burrows with sign identified at the time of the survey, due to the mobile nature of the species it is possible that burrowing owl could use the site prior to the start of Project activities. If burrowing owl are found to be using or nesting on the Project prior to the start of construction due to a change in potential burrow presence, direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur. Potential Project-related direct impacts to these species could be significant and occur in the form of injury, mortality, and loss of active nests or young. Indirect impacts could occur in the form of habitat loss, increased human and vehicular activity, ground disturbances, noise, and increased dust. Implementation of **BIO-2** is recommended to mitigate for potential impacts.

Palm Springs pocket mouse has a high potential to occur in the creosote bush scrub habitat of the Project Area. Consultation with a small mammal expert of southern California, Stephen Montgomery, resulted in agreement that habitat and range supports Palm Springs pocket mouse. Furthermore, a search of the VertNet biodiversity database (VertNet 2019), confirmed that the only pocket mouse occurrences recorded for the area are Palm Springs pocket mouse. No other *Longimembris* pocket mouse species have been recorded in the area. However, there is a low number of occurrences overall likely due to lack of studies in the area. There is potential for Project-related impacts to be significant if this species occurs in the Project Area in the form of direct mortality and destruction of habitat. Implementation of **BIO-8** is recommended to mitigate for potential impacts.

Four special-status wildlife species were found to have a moderate potential to occur within the Project Area: mountain plover, Crissal thrasher, Yuma hispid cotton rat, and American badger. Direct impacts to these species could occur in the form of injury, mortality, and the loss of nests or young. Indirect impacts could occur in the form of habitat loss, increased human and vehicular activity, ground vibrations, noise, and increased dust. Implementation of **BIO-1**, **BIO-3**, **BIO-5**, **BIO-6 and BIO-7** is recommended to mitigate for potential impacts.

### *5.1.2 Riparian Habitat or Sensitive Natural Communities*

The Project Area is comprised of creosote bush scrub, disturbed creosote bush scrub, active and fallow agriculture, disturbed tamarisk thickets, disturbed land, and urban/developed land, which would be directly impacted by the Project. In-kind mitigation, up to a 3:1 ratio, may be required by CDFW to offset

impacts to riparian habitat and would include the disturbed tamarisk thickets. Implementation of **BIO-4**, **BIO-5**, and **BIO-6** is recommended to reduce potential impacts to a less-than-significant level.

### *5.1.3 State or Federally Protected Wetlands and Waters*

The results of the aquatic resources delineation and discussion of potential impacts on state or federally protected wetlands or Waters of the U.S. are discussed in the Aquatic Resources Delineation Report (ECORP 2022), prepared under separate cover. Implementation of **BIO-4**, **BIO-5**, and **BIO-6** is recommended to mitigate for potential significant impacts.

### *5.1.4 Wildlife Corridors and Nursery Sites*

Portions of the Project Area and gen-tie alignment are located adjacent to areas containing existing disturbances (i.e., roads and active agricultural land). A majority of this area does not contain suitable vegetation or cover to support wildlife movement in the form of a corridor. The parcel and the western segment of the gen-tie are adjacent to open space/BLM land but overall these areas are disturbed and do not support wildlife movement opportunities connecting the area to large, undeveloped natural areas to the southwest. Wildlife would choose instead to use the more suitable and less disturbed creosote bush scrub to the west within BLM land as a wildlife movement area. No native nursery sites were identified within the Project Area. Therefore, no impacts to wildlife corridors or nursery sites are expected to occur from the development of the Project.

### *5.1.5 Habitat Conservation Plans and Natural Community Conservation Plans*

The western and southern buffer of the parcel falls within the DRECP Area with a conservation designation of California Desert National Conserved Lands. None of the Survey Area falls within Areas of Environmental Concern (DRECP 2021). Portions of the western alignment of the gen-tie falls within BLM Renewable Energy Development Focus Areas. If habitat within the California Desert National Conserved Lands area of the Project is to be impacted, implementation of **BIO-7** is recommended to minimize for potential significant impacts. The Project will follow the guidelines in Imperial County's Conservation and Open Space Element and meet the requirements outlined in the plan. Consultation with BLM, County of Imperial Department of Planning and Development, USFWS, and CDFW would be required should listed plant or wildlife species be found to occur.

## 6.0 RECOMMENDATIONS AND MITIGATION MEASURES

The following recommendations have been developed in accordance with CEQA (see Section 5) but should not be considered mitigation measures at this point in the Project planning process. These actions are recommended prior to Project implementation:

**BIO-1** **Biological Monitoring:** A qualified biologist should be present to monitor all ground-disturbing in vegetated areas and vegetation-clearing activities conducted for the Project. During each monitoring day, the biological monitor should perform clearance survey "sweeps" at the start of each work day that vegetation clearing takes place to minimize impacts on special-status species with potential to occur (including, but not limited to, special-status or nesting bird species, flat-tailed horned lizard, and American badger). The

monitor will be responsible for ensuring that impacts to special-status species, nesting birds, and active nests will be avoided to the greatest extent possible. Biological monitoring should take place until the Project Area has been completely cleared of any vegetation. If an active nest is identified, the biological monitor should establish an appropriate disturbance-limit buffer around the nest using flagging or staking. Construction activities should not occur within any disturbance limit buffer zones until the nest is deemed no longer active by the biologist. If special-status wildlife species are detected during biological monitoring activities, then consultation with the USFWS or CDFW should be conducted and a mitigation plan should be developed to avoid and offset impacts to these species. Mitigation measures may consist of work restrictions or additional biological monitoring activities after ground-disturbing activities are complete.

**BIO-2** **Preconstruction Surveys for Burrowing Owl:** Preconstruction surveys for burrowing owl should be conducted within the areas assessed as having burrowing owl potential of the Project Area and adjacent areas prior to the start of ground-disturbing activities. The surveys should follow the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Two surveys should be conducted, with the first survey being conducted between 30 and 14 days before initial ground disturbance (grading, grubbing, and construction), and the second survey being conducted no more than 24 hours prior to initial ground disturbance. If burrowing owls or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified in the Project Area during the survey and impacts to those features are unavoidable, consultation with the CDFW should be conducted and the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) for avoidance or passive relocation should be followed.

**BIO-3** **Preconstruction Nesting Bird Survey:** If construction or other Project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and March 15 through August 31 for the majority of migratory bird species), a preconstruction nesting-bird survey should be conducted by a qualified avian biologist to ensure that active bird nests, including those for the northern harrier, loggerhead shrike, black-tailed gnatcatcher, and burrowing owl, will not be disturbed or destroyed. The survey should be completed no more than 3 days prior to initial ground disturbance. The nesting-bird survey should include the Project Area and adjacent areas where Project activities have the potential to affect active nests, either directly or indirectly, due to construction activity or noise. If an active nest is identified, the biologist should establish an appropriately sized disturbance limit buffer around the nest using flagging or staking. Construction activities should not occur within any disturbance limit buffer zones until the nest is deemed inactive by the qualified biologist.

**BIO-4** **Aquatic Resources Regulatory Permitting:** If Project-related impacts will occur to areas under the jurisdiction of the USACE, CDFW, or RWQCB, a regulatory permit with those agencies is needed prior to the impact occurring. Permitting includes preparation and submittal of a Preconstruction Notification under Section 404 of the federal CWA, an

Application for Water Quality Certification under Section 401 of the federal CWA, and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. Other items such as finalized Project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the Project must also identify and approve mitigation through the respective agencies. Mitigation can include onsite or offsite options or could include payment of an in-lieu fee to a conservation organization. Types of mitigation can include restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. Typically, the type of mitigation and acreage of mitigation is negotiated with the regulatory agencies during the permitting process.

**BIO-5** **Riparian Habitat or Sensitive Habitat Avoidance:** To the greatest extent possible, plans should avoid impacts to disturbed tamarisk thicket habitats to minimize potential impacts to special-status species. Excluding these habitats from the Project should also minimize mitigation and permitting requirements to meet the less-than-significant threshold.

**BIO-6** **Minimization of Impacts to Wetland/Riparian Habitat:** New structures should not be placed within 50 feet of wetland or riparian habitat boundaries. A construction buffer of 300 feet should be established around the wetlands and riparian habitats during bird breeding season (February 1 to August 31). Prior to construction, fencing should be installed approximately 10 feet from the wetland and riparian habitat boundaries within 50 feet of the Project. Fencing should be easily visible to construction personnel.

**BIO-7** **Minimization of Impacts to Sensitive Species on BLM Land:** All vehicles should stay on designated roads within BLM land to minimize impacts to habitat. Coordination with a qualified biologist should occur prior to the staging of equipment and placement of temporary or permanent structures within BLM land. Additionally, a biologist should demarcate temporary and permanent work spaces in the field prior to the commencement of construction-related activities. Construction plans should incorporate measures to minimize and avoid impacts to habitats within this area. To control for introduction of invasive plant species, tires should be cleaned prior to entering BLM lands.

**BIO-8** **Minimization of Impacts to Palm Springs Pocket Mouse:** Habitats on the parcel and parts of the gen-tie line are suitable for the Palm Springs pocket mouse; presence could be assumed based on proximity of records and recommendations from small mammal experts that were consulted. If presence is assumed, consultation to develop suitable mitigation measures or in-kind mitigation to offset impacts with the CDFW may need to occur. If presence is not assumed, protocol surveys to determine presence or absence of Palm Springs pocket mouse are recommended. A preconstruction small mammal trapping survey shall be conducted for Palm Springs pocket mouse within suitable habitat in all areas of potential permanent and temporary disturbance lead by qualified biologists that are permitted to trap and handle small mammals under Memorandums of Understanding and Scientific Collection Permits with CDFW. Should Palm Springs pocket mouse individuals be

identified during the preconstruction survey, consultation to develop suitable mitigation measures with the CDFW would need to occur. If the Project Area is found to be absent of Palm Springs pocket mouse, no further mitigation is required.

The following best management practices are not mitigation measures pursuant to CEQA but are recommended to further reduce impacts to special-status species that have potential to occur on the property:

- Confine all work activities to a predetermined work area. Stay on previously designated roads or if not possible, create one way in and one way out roads during construction.
- To prevent inadvertent entrapment of wildlife during the construction phase of the Project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day with plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks should be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- Wildlife are often attracted to burrow- or den-like structures such as pipes and may enter stored pipes and become trapped or injured. To prevent wildlife use of these structures, all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater should be capped while stored on the site.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Project Area.
- Use of rodenticides and herbicides on the Project Area should be restricted. This is necessary to prevent primary or secondary poisoning of wildlife, including burrowing owl and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the USEPA, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to burrowing owl.

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## LIST OF ATTACHMENTS

Attachment A – Representative Site Photographs

Attachment B – Special-Status Plant Potential for Occurrence Table

Attachment C – Special-Status Wildlife Potential for Occurrence Table

# ATTACHMENT A

Representative Site Photographs

**Photo 1. Creosote bush scrub within the northern portion of the proposed solar field parcel of the Project Area; photo facing west. September 29, 2020.**

**Photo 2. Disturbed habitat within the southeastern portion of the gen-tie line; photo facing east. August 5, 2021.**

**Photo 3. Disturbed tamarisk thickets within the western portion of the gen-tie line; photo facing southwest. August 3, 2021.**

**Photo 4. Vegetated mounds of creosote bush scrub habitat within the middle portion of the proposed solar field parcel; photo facing west. August 4, 2021.**

**Photo 5. Creosote bush scrub (foreground) and active agriculture (background) within the western portion of the gen-tie line; photo facing east. August 5, 2021.**

**Photo 6. Disturbed creosote bush scrub in the western portion of the gen-tie line; photo facing northeast. August 4, 2021.**

**Photo 7. Disturbed habitat alongside a dirt road that runs north-south at the eastern perimeter of the proposed solar field parcel; photo facing south. August 4, 2021.**

**Photo 8. Disturbed fourwing saltbush scrub in the buffer of the proposed solar field parcel; photo facing south. August 3, 2021.**

# ATTACHMENT B

Special-Status Plant Potential for Occurrence Table

| Special-Status Plant Species with Potential to Occur within the Project Area | | | | |
|---|---|---|---|---|
| ***Scientific Name*** **Common Name** | **Status** | **Blooming Period/ Elevation Range (meters)** | **Habitat** | **Potential to Occur in the Project site** |
| *Astragalus crotalariae*<br>Salton milk-vetch | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 4.3<br>**BLM**: None | Jan-Apr<br>(-60 - 250) | Sonoran desert scrub | **Low:** Habitat for this species occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database. |
| *Astragalus insularis* var. *harwoodii*<br>Harwood's milk-vetch | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 2B.2<br>**BLM**: None | Jan-May<br>(0 – 710) | Desert dunes<br>Mojavean desert scrub | **Low:** Limited habitat occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database. |
| *Astragalus sabulonum*<br>gravel milk-vetch | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 2B.2<br>**BLM**: None | Feb-Jun<br>(-60 - 930) | Desert dunes<br>Mojavean desert scrub<br>Sonoran desert scrub | **Low:** Habitat for this species occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database. |
| *Castela emoryi*<br>Emory's crucifixion-thorn | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 2B.2<br>**BLM**: None | Jun-Jul<br>(90 - 725) | Mojavean desert scrub<br>Playas<br>Sonoran desert scrub | **Low:** Limited habitat occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database. |
| *Euphorbia abramsiana*<br>Abrams' spurge | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 2B.2<br>**BLM**: None | Sep-Nov<br>(-5 - 1310) | Mojavean desert scrub<br>Sonoran desert scrub | **Low:** Habitat for this species occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database. |
| *Euphorbia platysperma*<br>flat-seeded spurge | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 1B.2<br>**BLM**: Sensitive | Feb-Sep<br>(65 - 100) | Desert dunes<br>Sonoran desert scrub | **Low:** Limited habitat occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database. |
| *Johnstonella costata*<br>ribbed cryptantha | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 4.3<br>**BLM**: None | Feb-May<br>(-60 - 500) | Desert dunes<br>Mojavean desert scrub<br>Sonoran desert scrub | **Low:** Habitat for this species occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database.. |

| Special-Status Plant Species with Potential to Occur within the Project Area | | | | |
|---|---|---|---|---|
| ***Scientific Name*** **Common Name** | **Status** | **Blooming Period/ Elevation Range (meters)** | **Habitat** | **Potential to Occur in the Project site** |
| *Lycium torreyi*<br>Torrey's box-thorn | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 4.2<br>**BLM**: None | Mar-Jun<br>(-50 - 1220) | Mojavean desert scrub<br>Sonoran desert scrub | **Low:** Marginally suitable habitat for this species occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database. |
| *Pholisma sonorae*<br>sand food | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 1B.2<br>**BLM**: Sensitive | Apr-Jun<br>(0 – 200) | Desert dunes<br>Sonoran desert scrub | **Low:** Marginally suitable habitat for this species occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database. |
| *Pilostyles thurberi*<br>Thurber's pilostyles | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 4.3<br>**BLM**: None | Dec-Apr<br>(0 - 365) | Sonoran desert scrub | **Low:** Marginally suitable habitat for the species occurs in the Project site and 4 historic CNDDB records occur within five miles with the closest record being from 1985 and approximately 4.6 miles away. |
| *Xylorhiza orcuttii*<br>Orcutt's woody-aster | **USFWS**: None<br>**CDFW**: None<br>**CRPR**: 1B.2<br>**BLM**: None | Mar-Apr<br>(0-365) | Sonoran desert scrub | **Low:** Marginally suitable habitat for this species occurs within the Project site. No CNDDB record within 5 miles of site. Known occurrence within CNPS quadrat database. |

**California Native Plant Society (CNPS) Rare Plant Ranks:**
1B: Plants rare, threatened, and endangered in California and elsewhere.
2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
4: Plants of limited distribution; a watch list.

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

**Sources:**
California Natural Diversity Data Base (CNDDB) (CDFW 2021a)
CNPS Rare and Endangered Plant Inventory (CNPS 2021)
Calflora Information on California Plants (Calflora 2021)
IPaC (USFWS 2021b)
Special Status Plants (BLM 2015)

# ATTACHMENT C

Special-Status Wildlife Potential for Occurrence Table

| Special-Status Wildlife Species Potential for Occurrence | | | | |
|---|---|---|---|---|
| ***Scientific Name***<br>Common Name | **Status** | | **Habitat Requirements** | **Potential for Occurrence** |
| **VERTEBRATES** | | | | |
| **OSTEICHTHYES (BONY FISH)** | | | | |
| CYPRINODONTIDAE (killifishes) | | | | |
| ***Cyprinodon macularius***<br>desert pupfish | USFWS:<br>CDFW:<br>BLM: | **END**<br>**END**<br>- | Species historically occurred in several springs, seeps and slow-moving streams in the Salton Sink Basin. Desert pupfish are now relegated to remnants of their former habitats, which generally are too harsh for most introduced species to exist. | **Presumed absent.** No suitable habitat is present within the site or buffer. Seven recent CNDDB records (of 8 total) occur within 5 miles of the site found in drains and lateral canals near the Salton Sea. The closest record is approximately 3.8 miles north of the site. Generally, this species is constrained to agricultural drains and pond features near the terminus of drains which does not apply to the site. Furthermore the canal within the Survey Area is too distant from known populations. |
| **REPTILES** | | | | |
| PHRYNOSOMATIDAE (spiny lizards) | | | | |
| ***Phrynosoma mcallii***<br>flat-tailed horned lizard | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>S | Desert scrub on sandy flats and valleys with little or no windblown sand, salt flats, and areas with gravelly soils. | **High.** Suitable habitat in the creosote bush scrub habitat of the site and gen-tie line. Harvester ants observed on-site which is a food source for this species. Three recent CNDDB records of 6 total within 5 miles of the site with the closest being 3.5 miles south from 2009. |
| ***Uma notata***<br>Colorado Desert fringe-toed lizard | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>S | Dunes, washes, banks of rivers, and flats with sandy hammocks formed at the base of vegetation. Prefers arid areas, sparsely vegetated with fine windblown sand. Requires fine, loose sand for burrowing. | **Low.** Limited suitable habitat for this species is present on the site within the creosote bush scrub habitat as a majority of the soil is not fine, wind-blown sand. There is one recent CNDDB record that occur within 5 miles of the site from 2018. Found in creosote scrub on sandy/hardpan substrate. |
| **BIRDS** | | | | |
| ACCIPITRIDAE (hawks, kites, harriers, and eagles) | | | | |
| ***Circus hudsonius***<br>northern harrier (nesting) | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>- | Undisturbed tracts of grasslands and wetlands with low, thick vegetation. Prefers to breed in dry upland habitats, old fields, grazed meadows, drained marshlands, and high-desert shrubsteppe. Also found in pasturelands, croplands, and open floodplains. | **Present.** There was one sighting of northern harrier along the gen-tie line. No CNDDB records occur within 5 miles of the site. |
| ALAUDIDAE (larks) | | | | |
| ***Eremophila alpestris* ssp. *actia***<br>California horned lark | USFWS:<br>CDFW:<br>BLM: | none<br>WL<br>- | Bare open areas dominated by low vegetation or widely scattered shrubs, includes prairies, deserts, and plowed fields. Nests in a hollow on the ground. | **Present.** This species was observed within open disturbed areas in the southern portion of the site. |

| Special-Status Wildlife Species Potential for Occurrence | | | | |
|---|---|---|---|---|
| ***Scientific Name***<br>Common Name | **Status** | | **Habitat Requirements** | **Potential for Occurrence** |
| CHARADRIIDAE (plovers and relatives) | | | | |
| ***Charadrius montanus***<br>mountain plover (wintering) | USFWS:<br>CDFW:<br>BLM: | BCC<br>SSC<br>S | Shortgrass prairie, especially where blue grama, buffalo grass, and western wheat grass are dominant; and in grassy semidesert with scattered saltbush, sage, prickly pear, and yucca, at elevations ranging from 2,100 to 10,663 feet. Also found in fallow or recently plowed agricultural fields and in overgrazed landscapes that mimic their natural shortgrass habitat. | **Moderate**. Suitable habitat is present in the agricultural fields within the Survey Area. Five recent CNDDB records occur within 5 miles of the site with one record from 2011 less than 2 miles from the site. |
| FALCONIDAE (falcons and caracaras) | | | | |
| ***Falco peregrinus anatum***<br>peregrine falcon (nesting) | USFWS:<br>CDFW:<br>BLM: | none<br>FP<br>- | Inhabits a wide range of habitats from wetlands, deserts, forests and islands. In California, breeding habitats include a variety of locations from cliffs in uninhabited areas to tall buildings or bridges within the urban landscape. | **Present.** This species was observed flying over the creosote bush scrub habitat of the southern end of the solar field parcel. There is suitable foraging habitat for this species present in the creosote bush scrub habitat, riparian habitat associated with drainages, and adjacent agricultural land within the Survey Area. There is no suitable nesting habitat within the Survey Area. No CNDDB records within 5 miles of the site. |
| LANIIDAE (shrikes) | | | | |
| ***Lanius ludovicianus***<br>loggerhead shrike (nesting) | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>- | Open country, with scattered shrubs and trees or other perches for hunting; includes agricultural fields, deserts, grasslands, savanna, and chaparral. Nests 2.5 to 4 feet off ground in thorny vegetation. | **Present.** This species was observed in disturbed tamarisk thickets adjacent to the gen-tie line. There is suitable habitat for this species present in the creosote bush scrub habitat, riparian habitat associated with drainages, and adjacent agricultural land within the Survey Area. No CNDDB records within 5 miles of the site. |
| LARIDAE (gulls, terns, and skimmers) | | | | |
| ***Rynchops niger***<br>black skimmer (nesting colony) | USFWS:<br>CDFW:<br>BLM: | BCC<br>SSC<br>- | Coastal areas, usually around sandy beaches and islands, and large inland lakes in California. | **Presumed absent.** Unlikely to occur on-site due to absence of habitat. One historic CNDDB record occurs within 5 miles of the site near the Salton Sea. |
| MIMIDAE (mockingbirds and thrashers) | | | | |
| ***Toxostoma crissale***<br>Crissal thrasher | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>S | Dense desert and foothill scrub, and riparian brush. | **Moderate.** Suitable habitat exists within the Survey Area in the form of riparian habitat. Two historic CNDDB records within 5 miles of the site, one of which overlaps with the Project Area. |

| Special-Status Wildlife Species Potential for Occurrence | | | | |
|---|---|---|---|---|
| ***Scientific Name*** Common Name | **Status** | | **Habitat Requirements** | **Potential for Occurrence** |
| PASSERELLIDAE (sparrows) | | | | |
| ***Junco hyemalis* ssp. *caniceps*** gray-headed junco (nesting) | USFWS:<br>CDFW:<br>BLM: | none<br>WL<br>- | Openings and edges of coniferous and mixed woodlands. In winter, frequents fields, roadsides, parks, and suburban gardens. | **Presumed absent.** No suitable habitat is present within the site or buffer due to lack of woodland habitat. One historic CNDDB record occurs within 5 miles of the site. |
| PELICANIDAE (pelicans) | | | | |
| ***Pelecanus occidentalis*** brown pelican (nesting colony & communal roosts) | USFWS:<br>CDFW:<br>BLM: | none<br>FP<br>S | Found in estuaries and coastal marine habitats. | **Presumed absent.** No suitable habitat is present within the site or buffer. One CNDDB record occurs within 5 miles of the site at the Salton Sea. |
| PICIDAE (woodpeckers) | | | | |
| ***Melanerpes uropygialis*** Gila woodpecker | USFWS:<br>CDFW:<br>BLM: | BCC<br>**END**<br>S | Arid environments, especially deserts and dry forests of the southwestern U.S. and adjacent Mexico, usually below elevations of 3,300 feet. Most common in low swales and arroyos, including riparian corridors with cottonwood, willow, and mesquite. Nests in cacti and other tree species. | **Low.** Unlikely to occur on-site due to absence of riparian woodland habitat and large cacti. Two historic CNDDB record occurs within 5 miles of the site. |
| POLIOPTILIDAE (gnatcatchers) | | | | |
| ***Polioptila melanura*** black-tailed gnatcatcher | USFWS:<br>CDFW:<br>BLM: | none<br>WL<br>**-** | Semiarid and desert thorn scrub habitats. This species is well adapted to dry habitats and tend to be most common in areas with less than 8 inches of annual rainfall. They often live far from streams and other bodies of water. | **High.** Desert scrub habitat within the site is suitable for this species. One historic CNDDB record occurs within 5 miles of the site. |
| RALLIDAE (rails) | | | | |
| ***Laterallus jamaicensis* ssp. *coturniculus*** California black rail | USFWS:<br>CDFW:<br>BLM: | none<br>**THR,** FP<br>S | Riparian marshes, coastal prairies, saltmarshes, and impounded wetlands. All of its habitats have stable shallow water, usually just 1.2 inches deep at most. | **Low.** There is marginal presence of riparian marshes, coastal prairies, saltmarshes, and impounded wetlands within the site or buffer. Two recent CNDDB records occur within 5 miles of the site from 2009. This species was found within the Sonny Bond Salton Sea National Wildlife Refuge and emergent wetland near the mouth of New River. |
| ***Rallus obsoletus* ssp. *yumanensis*** Yuma Ridgway's rail | USFWS:<br>CDFW:<br>BLM: | **END**<br>**THR,** FP<br>- | Consistently found in freshwater marshes that are composed of cattail and bulrush. This emergent vegetation averages greater than 6 feet tall. Water depth tends to be around 3.5 inches deep. Range extends from Nevada, California, and Arizona to Baja California and Sonora Mexico. | **Low.** There is marginal suitable habitat for this species present. Two recent CNDDB records from 2009 occur within 5 miles of the site. This species was found within the Sonny Bond Salton Sea National Wildlife Refuge. |

| Special-Status Wildlife Species Potential for Occurrence | | | | |
|---|---|---|---|---|
| ***Scientific Name*** Common Name | **Status** | | **Habitat Requirements** | **Potential for Occurrence** |
| THRESKIORNITHIDAE (ibises and spoonbills) | | | | |
| ***Plegadis chihi*** white-faced ibis (nesting colony) | USFWS:<br>CDFW:<br>BLM: | none<br>WL<br>- | Fresh water marshes, irrigated land, tules. Favors shallow water, as in marshes, flooded pastures, and irrigated fields. Sometimes in damp meadows with no standing water. | **Low.** Unlikely to occur on-site due to absence of habitat but there is potential for adjacent irrigated agricultural lands to become flooded enough to attract this species. One historic CNDDB record occurs within 5 miles of the site near the Salton Sea. Glossy ibis were observed approximately 3 miles east of the Project site in a flooded agricultural field during the biological surveys. |
| STRIGIDAE (owls) | | | | |
| ***Asio flammeus*** short-eared owl (nesting) | USFWS:<br>CDFW:<br>BLM: | BCC<br>SSC<br>- | Grasslands, agricultural fields, meadows, and open areas, where they perch in low trees or on the ground. | **Low.** Wintering range extends to area, however there is limited suitable habitat on site and within the buffer. One historic CNDDB record occurs within 5 miles of the site. |
| ***Athene cunicularia*** burrowing owl (burrow sites & some wintering sites) | USFWS:<br>CDFW:<br>BLM: | BCC<br>SSC<br>S | Open grasslands including prairies, plains, and savannah, or vacant lots and airports. Nests in abandoned dirt burrows. | **High.** The disturbed areas of the Project site and agricultural areas adjacent to the gen-tie line provides habitat. Soils in these areas are friable and suitable for burrowing. Additionally, ground squirrel burrow complexes were documented within the Project Area. 25 recent CNDDB records occur within 5 miles of the site with the closest being less than 1 mile away. |
| **MAMMALS** | | | | |
| MOLOSSIDAE (free-tailed bats) | | | | |
| ***Eumops perotis* ssp. *californicus*** western mastiff bat | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>S | Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in arid and semiarid regions including rocky canyon habitats. | **Presumed absent.** No suitable roosting habitat within site or in buffer. No CNDDB records within 5 miles of the site. |
| ***Nyctinomops femorosaccus*** pocketed free-tailed bat | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>- | Roosts in crevices of outcrops and cliffs, shallow caves, and buildings. Found along rugged canyons, high cliffs, and semiarid rock outcroppings. | **Presumed absent.** No suitable roosting habitat within site or in buffer. No CNDDB records within 5 miles of the site. |
| ***Nyctinomops macrotis*** big free-tailed bat | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>- | Roosts in cliff crevices, and less often in buildings, caves, and tree cavities. Occurs in rocky areas of rugged and hilly country including woodlands, evergreen forests, river floodplain-arroyo habitats, and desert scrub. | **Presumed absent.** No suitable roosting habitat within site or in buffer. One historic CNDDB record (1987) within 5 miles of the site. |

| Special-Status Wildlife Species Potential for Occurrence | | | | |
|---|---|---|---|---|
| ***Scientific Name***<br>Common Name | **Status** | | **Habitat Requirements** | **Potential for Occurrence** |
| PHYLLOSTOMIDAE (leaf-nosed bats) | | | | |
| ***Choeronycteris mexicana***<br>Mexican long-tongued bat | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>- | Roosts in caves, rock fissures, old mines, and rarely in buildings. Found in desert shrublands, tropical deciduous forests, deep mountain canyons with riparian vegetation, oak-conifer woodlands and forests. | **Presumed absent.** No suitable roosting habitat within site or in buffer; however, there is suitable foraging habitat. No CNDDB records within 5 miles of the site. |
| ***Macrotus californicus***<br>California leaf-nosed bat | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>- | Roosts in caves, abandoned mines, or natural rock fissures in canyons during the day. May roost in buildings, under bridges, or in porches during the night. Found in lowland desert scrub. Foraging usually takes place in dry desert washes. | **Low.** No suitable roosting habitat within site or in buffer; however, there is suitable foraging habitat. No CNDDB records within 5 miles of the site. |
| VESPERTILIONIDAE (evening bats) | | | | |
| ***Antrozous pallidus***<br>pallid bat | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>S | Roosts in rock crevices, caves, mines, buildings, bridges, and in trees. Generally, in mountainous areas, lowland desert scrub, arid grasslands near water and rocky outcrops, and open woodlands. | **Presumed absent.** No suitable roosting habitat within the site and buffer; however, desert scrub provides suitable foraging habitat. No CNDDB records within 5 miles of the site. |
| ***Corynorhinus townsendii***<br>Townsend's big-eared bat | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>S | Roosts in mines, caves, buildings, or other crevices, sometimes trees. Usually requires large crevices. Most common in moist areas or those with access to water. | **Presumed absent.** There is limited suitable roosting habitat within the site and buffer. No CNDDB records within 5 miles of the site. |
| ***Lasiurus xanthinus***<br>western yellow bat | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>- | Roosts in trees, particularly palms, in desert wash, desert riparian, valley foothill riparian, and palm oasis habitats. | **Low.** There is limited suitable roosting habitat within the site and buffer but there is potential in the palms of the orchards and agricultural areas adjacent to the gen-tie line. One historic CNDDB record occurs within 5 miles of the site. |
| CRICETIDAE (New World rats and mice) | | | | |
| ***Sigmodon hispidus* ssp. *eremicus***<br>Yuma hispid cotton rat | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>- | Inhabits a variety of habitats, but generally associated with drainage ditches, canals, and seeps vegetated with plants such as arrow weed, saltgrass, common reed, cattails, sedges, tamarisk, heliotrope, and annual grasses. They utilize runways through dense herbaceous growth and nests are built of woven grass. Noted presence in moist agricultural fields. | **Moderate.** There is marginally suitable habitat alongside the irrigation channels adjacent to agricultural fields within the Survey Area. Two recent CNDDB records occur within 5 miles of the site from 2008 with the closest being approximately 2 miles northeast of the Project Area. The species was found in a lateral drain canal. |

| Special-Status Wildlife Species Potential for Occurrence | | | | |
|---|---|---|---|---|
| ***Scientific Name***<br>Common Name | **Status** | | **Habitat Requirements** | **Potential for Occurrence** |
| HETEROMYIDAE (kangaroo rats, pocket mice, and kangaroo mice) | | | | |
| ***Perognathus longimembris* ssp. *bangsi***<br>Palm Springs pocket mouse | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>S | Inhabits a variety of habitats including creosote scrub, desert scrub, and grasslands, generally occurring on loosely packed or sandy soils with sparse to moderately dense vegetative cover. | **High.** There is suitable habitat and soils within the site and buffer. One recent CNDDB record occurs approximately 2.75 miles southeast of the site. It was found in 2007 where the habitat consisted of creosote bush scrub with very sandy soils. Small rodent burrows were observed within creosote bush scrub habitat on-site during biological surveys. |
| MUSTELIDAE (weasels and relatives) | | | | |
| ***Taxidea taxus***<br>American badger | USFWS:<br>CDFW:<br>BLM: | none<br>SSC<br>- | Open habitats with friable soil such as grasslands, brushlands with sparse ground cover, open chaparral, and sometimes riparian zones. | **Moderate**. Moderately suitable habitat exists along the gen-tie line. One recent CNDDB record from 2017 occurs within 5 miles of the site on military land. Noted to be within creosote bush habitat. |

**Federal Designations:**
(Federal Endangered Species Act, USFWS)

**END**: Federally-listed, Endangered
**THR**: Federally-listed, Threatened
**CAN:** Federal Candidate Species
FSC: Federal Species of Concern
FPD: Federal Proposed for Delisting
BCC: Bird of Conservation Concern

Bureau of Land Management (BLM)
S: Sensitive

**State Designations**:
(California Endangered Species Act, CDFW)

**END**: State-listed, Endangered
**THR**: State-listed, Threatened
**CAN:** State Candidate Species
SSC: California Species of Special Concern
FP: Fully Protected Species
WL: Watch List