

A P P E N D I X E

BIOLOGICAL RESOURCES  
ASSESSMENT





**DRAFT**

# **BIOLOGICAL RESOURCES ASSESSMENT**

**ALAMEDA GRANT LINE SOLAR  
ALAMEDA COUNTY, CALIFORNIA**



**LSA**

January 2022

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**ALAMEDA GRANT LINE SOLAR  
ALAMEDA COUNTY, CALIFORNIA**

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The logo for LSA, consisting of the letters 'LSA' in a bold, blue, sans-serif font.

January 2022

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## LIST OF ABBREVIATIONS AND ACRONYMS

AOU	American Ornithologists' Union
BMPs	Best Management Practices
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CRLF	California Red-Legged Frog
CTS	California Tiger Salamander
ECAP	East County Area Plan
IPaC	Information for Planning and Conservation
MBTA	Migratory Bird Treaty Act
NWP	Nationwide Permit
OHWM	Ordinary High Water Mark
PCN	Pre-Construction Notification
RWQCB	Regional Water Quality Control Board
USFWS	U.S. Fish and Wildlife Service

## INTRODUCTION

This report presents the results of LSA’s survey of biological resources and analysis of potential biological impacts from the proposed project. This report is a baseline study providing information on plant and wildlife species found on or potentially occurring on the project site, as defined below. The report includes an analysis of sensitive habitats, special-status plant and wildlife species, and other biological resources subject to California Environmental Quality Act (CEQA) review. Potential impacts resulting from the proposed project were evaluated. If the project has the potential to result in significant impacts to these biological resources, measures to avoid, minimize, or mitigate for those significant impacts are described. This assessment is based on information available at the time of the study and on-site conditions that were observed on the days the site was visited. Conclusions are based on currently available information used in combination with the professional judgement of the biologists completing this assessment.

## SITE LOCATION AND SETTING

The project site is located in a rural area in an unincorporated portion of eastern Alameda County (Figures 1 and 2). The site is bounded by an orchard to the north, the Mountain House residential development to the east, the Mendota canal and associated levee to the west, and Grant Line Road to the south. The project is depicted on the United States Geological Survey (USGS) *Clifton Court Forebay, California* topographic quadrangle map in Township 2 South, Range 4 East, Section 17 (USGS 1978; Appendix A, Figure 1). The 23.65-acre project area is within Assessor’s Parcel Number 0099B-7650-007-01.

## PROJECT DESCRIPTION

The proposed project involves the installation of solar panels on monopoles. Buried cables will carry the electricity to a new service pole to deliver the electricity to the grid.

At this stage the exact number and location of solar panels has not been determined, but the solar panels will occupy a maximum of 11 acres of the 23.65-acre site. Additionally, approximately 5 acres will be temporarily disturbed during construction. Any temporarily disturbed areas will be recontoured to match the pre-existing grade to the maximum extent possible and revegetated with a native erosion-control seed mix following construction.

The site will be surrounded by a security fence. The fence will have a wildlife-friendly design, with large enough openings at the bottom to allow the passage of medium-sized animals such as badgers, while excluding trespassers. No rodenticides will be used on the site during project construction or operation.

## REGULATORY BACKGROUND

### Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally listed threatened and endangered plant and animal species. The federal Endangered Species Act protects listed species from harm or “take,” broadly defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap,

capture, or collect, or attempt to engage in any such conduct.” Any such activity can be defined as a “take” even if it is unintentional or accidental. Listed plant species are typically provided less protection than listed animals.

An endangered species is one that is considered in danger of becoming extinct throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. Federal agencies involved in permitting projects that may result in take of federally listed species (e.g., U.S. Army Corps of Engineers) are required under Section 7 of the ESA to consult with the USFWS prior to issuing such permits. Any activity that could result in the take of a federally listed species and is not authorized as part of a Section 7 consultation requires an ESA Section 10 take permit from the USFWS.

### Clean Water Act

The U.S. Army Corps of Engineers (Corps) is responsible under Section 404 of the Clean Water Act to regulate the discharge of fill material into waters of the United States. Waters of the U.S. and their lateral limits are defined in 33 CFR Part 328.3(a) and include streams that are tributaries to navigable waters and their adjacent wetlands. The lateral limits of jurisdiction for a non-tidal stream are measured at the line of the Ordinary High Water Mark (OHWM) (33 CFR Part 328.3[e]) or the limit of adjacent wetlands (33 CFR Part 328.3[b]). Any permanent extension of the limits of an existing water of the U.S., whether natural or man-made, results in a similar extension of Corps jurisdiction (33 CFR Part 328.5).

Waters of the U.S. fall into two broad categories: wetlands and other waters. Other waters include waterbodies and watercourses such as rivers, streams, lakes, springs, ponds, coastal waters, and estuaries. Wetlands include marshes, wet meadows, seeps, floodplains, basins, and other areas experiencing extended seasonal soil saturation. Seasonally or intermittently inundated features, such as seasonal ponds, ephemeral streams, and tidal marshes, are categorized as wetlands if they have hydric soils and support wetland plant communities. Seasonally inundated waterbodies or watercourses that do not exhibit wetland characteristics are classified as other waters of the U.S.

Other waters that cannot trace a continuous hydrologic connection to a navigable water of the U.S. are not tributary to waters of the U.S. and are termed “isolated waters.” Wetlands that are not adjacent to other waters are termed “isolated wetlands.” (“Adjacent” means bordering, contiguous or neighboring, and includes wetlands separated from other waters by man-made dikes or barriers, natural river berms, beach dunes and the like.) Isolated wetlands and waters are jurisdictional if their use, degradation, or destruction could affect interstate or foreign commerce (33 CFR Section 328.3[a]). The Corps may or may not take jurisdiction over isolated wetlands, depending on the specific circumstances.

In general, a Section 404 permit must be obtained from the Corps before filling or grading wetlands or other waters of the U.S. Certain projects may qualify for authorization under a Nationwide Permit (NWP). The purpose of the NWP program is to streamline the evaluation and approval process throughout the nation for certain types of activities that have only minimal impacts to the aquatic environment. Many NWPs require the applicant to submit a pre-construction notification (PCN) to the appropriate Corps office and to obtain a project-specific authorization. The Corps is required to



consult with the USFWS under Section 7 of the ESA if the permitted activity may result in the take of federally listed species.

All Corps permits require state water quality certification under Section 401 of the Clean Water Act. This regulatory program is administered by the San Francisco Bay Regional Water Quality Control Board (RWQCB). Projects that propose to fill wetlands or other waters of the U.S. must apply for water quality certification from the RWQCB. The RWQCB has adopted a policy requiring mitigation for any loss of wetlands, streams, or other waters of the U.S.

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

Under this Act (California Water Code Sections 13000–14920), the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the waters of the State. Therefore, even if a project does not require a federal permit, it may still require review and approval by the RWQCB (e.g., for impacts to isolated wetlands and other waters). When reviewing applications, the RWQCB focuses on ensuring that projects do not adversely affect the “beneficial uses” associated with waters of the State. In most cases, the RWQCB seeks to protect these beneficial uses by requiring the integration of water quality control measures into projects that will require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction Best Management Practices (BMPs).

### **Migratory Bird Treaty Act**

The federal Migratory Bird Treaty Act (MBTA) prohibits the taking, hunting, killing, selling, purchasing, etc. of migratory birds, parts of migratory birds, and their eggs and nests. As used in the MBTA, the term “take” is defined as “to pursue, hunt, shoot, capture, collect, kill, or attempt to pursue, hunt, shoot, capture, collect, or kill, unless the context otherwise requires.” Most bird species native to the United States are covered by this act.

### **California Endangered Species Act**

The California Department of Fish and Wildlife (CDFW) has jurisdiction over state-listed endangered, threatened, and rare plant and animal species under the California Endangered Species Act (CESA). In addition, species designated as “candidates” for listing under CESA are protected by its provisions. The CDFW also maintains a list of Species of Special Concern, defined as species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats. Species of Special Concern are not afforded legal protection under CESA.

### **California Fish and Game Code**

The CDFW is also responsible for enforcing the California Fish and Game Code, which contains several provisions potentially relevant to construction projects. For example, Section 1602 of the Fish and Game Code governs the issuance of Lake and Streambed Alteration Agreements by the CDFW. Lake and Streambed Alteration Agreements are required whenever proposed project activities would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated as such by the CDFW.

The Fish and Game Code also lists animal species designated as Fully Protected or Protected, which may not be taken or possessed without a permit from the Fish and Game Commission and/or the CDFW. These take permits do not allow “incidental take” (except in limited circumstances) and are more restrictive than the take allowed under Section 2081 of the CESA. Fully Protected species are listed in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the Fish and Game Code, while Protected amphibians and reptiles are listed in Chapter 5, Sections 41 and 42.

Section 3503 of the Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 specifically prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks and eagles) or Strigiformes (owls) and their nests. These provisions, along with the federal MBTA, essentially serve to protect nesting native birds. Non-native species, including European starling, house sparrow, collared dove, and rock pigeon, are not afforded any protection under the MBTA or California Fish and Game Code (except that hunting regulations apply to some non-native species listed as gamebirds).

### California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to “projects” proposed to be undertaken or requiring approval by State or local government agencies. Projects are defined as having the potential to have physical impact on the environment. Under Section 15380 of CEQA, a species not included on any formal list “shall nevertheless be considered rare or endangered if the species can be shown by a local agency to meet the criteria” for listing. With sufficient documentation, a species could be shown to meet the definition of rare or endangered under CEQA and be considered a “de facto” rare or endangered species.

### Alameda County General Plan

The East County Area Plan (ECAP) section of the Alameda County General Plan has a goal “to preserve a variety of plant communities and wildlife habitat.” Relevant policies to support this goal include:

- **Policy 121:** The County shall secure open space lands, through acquisition of easements or fee title, specifically for the preservation and protection of indigenous vegetation and wildlife.
- **Policy 123:** Where site-specific impacts on biological resources resulting from a proposed land use outside the Urban Growth Boundary are identified, the County shall encourage that mitigation is complementary to the goals and objectives of the ECAP. To that end, the County shall recommend that mitigation efforts occur in areas designated as "Resource Management" or on lands adjacent to or otherwise contiguous with these lands in order to establish a continuous open space system in East County and to provide for long term protection of biological resources.
- **Policy 124:** The County shall encourage the maintenance of biological diversity in East County by including a variety of plant communities and animal habitats in areas designated for open space.

- **Policy 125:** The County shall encourage preservation of areas known to support special-status species.

Relevant programs to implement these policies include:

- **Program 55:** The County shall develop management guidelines for lands designated "Resource Management" for the purpose of maintaining and/or enhancing existing plant communities and wildlife habitats. The County shall identify organizations that may be suitable to manage the open space.
- **Program 56:** The County shall develop specific biological survey protocols for special status plants and animals to be used in evaluating proposed activities within the Urban Growth Boundary, in consultation with federal and state resource agencies.

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## METHODS

### LITERATURE REVIEW

LSA reviewed available background information and literature and searched the records of the California Natural Diversity Database (CNDDDB; CDFW 2021), the California Native Plant Society's (CNPS) online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2021), and the USFWS's Information for Planning and Conservation (IPaC) on-line system (USFWS 2021) regarding the potential presence of special-status plant and wildlife species within or adjacent to the project site. The database search results were combined with LSA staff knowledge on the presence of special-status plants and wildlife in eastern Alameda County to prepare a list of potentially occurring special-status species and habitats on the site.

Nomenclature for vegetation and plant communities used in this report is based on multiple sources, primarily A Manual of California Vegetation, Second Edition (Sawyer et al. 2008). Plant taxonomy and nomenclature follows Baldwin et al. (2012). Common and scientific names for animals are based on Crother (2017) for amphibians and reptiles, the American Ornithologists' Union (AOU) Check-list of North American Birds (AOU 1998) and supplements for birds, and Bradley et al. (2014) for mammals.

The U.S. Department of Agriculture (2021) Web Soil Survey was reviewed to determine soil types on the site and identify any soil types (e.g., sandy, acidic, highly alkaline soils, serpentinite, etc.) that may support special-status plants and/or sensitive communities, including wetlands.

### FIELD SURVEYS

LSA Senior Biologist John Kunna first visited the site on May 13, 2021. He also walked transects of the site to inspect burrows for any sign of use by burrowing owl or San Joaquin kit fox. He installed a motion-activated trail camera at one of the slightly larger burrow entrances, which was potentially suitable for San Joaquin kit fox. He returned to the site on May 18 and moved the camera to a different burrow. He recovered the camera on May 20. The surveys were also conducted in order to provide a current assessment of the biological resources present and identify potential constraints to development. All wildlife and plant species observed during the survey were recorded in field notes.

## RESULTS

### LAND USE

The site appears to have not been used for intensive agriculture, at least within the past several years. The site has been used for illegal dumping, primarily of household trash. Windblown garbage is also on the site. Rodenticide bait stations were observed in the orchard adjacent to the site to the north.

### SOILS

Soils mapped on the project site consist of mainly of Linne clay loam, 3 to 15 percent slopes. Approximately 2 acres in the southeast corner of the site is mapped as Capay clay, 1 to 6 percent slopes, MLRA 17. Both of these soil types are considered well-drained, with no frequency of ponding. Both soil types are nonsaline to very slightly saline. Linne clay loam is considered “Farmland of statewide importance” and Capay clay is “prime farmland if irrigated.” Linne clay loam is slightly alkaline at the surface, with a pH of 7.9 to 8.4. Capay clay is basically neutral, with a pH ranging from 6.6 to 7.8 at the surface. (USDA 2021).

### AQUATIC RESOURCES

No aquatic resources such as wetlands, vernal pools, or waterways were observed on the site.

### VEGETATION

The CNDDDB query returned 11 special-status plant species with occurrences within 5 miles of the site. The CNPS Online Inventory returned a list of 14 List 1 or List 2 species, 4 of which had not shown up in the CNDDDB query. Table A summarizes the potentials for each of these 15 species to occur on the site. No special-status plant species were detected during the site visits.

The site is dominated by non-native annual grasses, including wild oats (*Avena* sp.) and brome (*Bromus* sp.). The overall plant diversity appears to be low. A few Russian thistle (*Salsola tragus*) plants were observed growing on the site. Russian thistle is also known as tumbleweed, and dried tumbleweeds were observed stuck to nearby fences. Russian thistle is an invasive, non-native plant.

Several narrow leaf milkweed (*Asclepias fascicularis*) plants were also observed growing on the site.

### SENSITIVE NATURAL COMMUNITIES

The CNDDDB query returned three sensitive natural communities — Alkali Meadow, Northern Claypan Vernal Pool, and Valley Sink Scrub — that have occurrences within 5 miles of the site. As detailed in Table B, none of these communities occur on the site.

**Table A: Special-Status Plant Species Evaluated**

Species	Status* (Federal/State/RPR)	Habitat/Blooming Period	Potential to Occur
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	--/--/1B.2	<ul style="list-style-type: none"> <li>Alkali flats</li> <li>Vernal swales and vernal pool edges</li> </ul> Elevation: 1-60 meters. Blooms: March-June.	None. No suitable alkaline/vernal pool habitat occurs on the site. There are no CNDDB records within 5 miles of the site.
<i>Atriplex cordulata</i> var. <i>cordulata</i> Heartscale	--/--/1B.2	<ul style="list-style-type: none"> <li>Chenopod scrub</li> <li>Meadows and seeps</li> <li>Valley and foothill grassland</li> <li>Saline or alkaline soils</li> </ul> Elevation: 0-560 meters. Blooms: April-October.	None. No suitable alkaline/vernal pool habitat occurs on the site. There is only one CNDDB occurrence within 5 miles of the site, based on an observation of a population in an alkaline seasonal wetland.
<i>Blepharizonia plumosa</i> Big tarplant	--/--/1B.1	<ul style="list-style-type: none"> <li>Valley and foothill grassland, usually in clay soils</li> </ul> Elevation: 30-505 meters. Blooms: July-October.	None. There are two CNDDB occurrences within 5 miles of the site. The site is dominated by non-native plants. Historical occurrences probably extirpated by urbanization, agriculture, and non-native plants.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	--/--/1B.1	<ul style="list-style-type: none"> <li>Grazed and ungrazed annual grassland</li> <li>Alkaline or saline soils sometimes described as saline clay soil</li> </ul> Elevation: 1-230 meters. Blooms: May-October.	None. There are no CNDDB occurrences within 5 miles of the site. There are no saline or highly alkaline soils on the site.
<i>Delphinium recurvatum</i> Recurved larkspur	--/--/1B.2	<ul style="list-style-type: none"> <li>Alkaline soils</li> <li>Chenopod scrub</li> <li>Cismontane woodland</li> <li>Valley and foothill grassland</li> </ul> Elevation: 3-790 meters. Blooms: March-June.	None. There are no alkaline soils on the site. There is only one CNDDB occurrence within 5 miles of the site, based on observations made in 1991 and 2010.
<i>Eryngium spinosepalum</i> Spiny-sepaled button-celery	--/--/1B.2	<ul style="list-style-type: none"> <li>Valley and foothill grassland</li> <li>Vernal pools</li> </ul> Elevation: 80-975 meters. Blooms: April-June.	None. There are no vernal pools on the site. There are no CNDDB occurrences within 5 miles of the site.

**Table A: Special-Status Plant Species Evaluated**

Species	Status* (Federal/State/RPR)	Habitat/Blooming Period	Potential to Occur
<i>Eschscholzia rhombipetala</i> Diamond-petaled California poppy	--/--/1B.1	<ul style="list-style-type: none"> <li>Valley and foothill grassland</li> </ul> Elevation: 0-975 meters. Blooms: March-April.	None. There is only one CNDDDB occurrence within 5 miles of the site, based on an observation of 22 plants in 2015. No California poppies were observed during the field surveys.
<i>Extriplex joaquinana</i> San Joaquin spearscale	--/--/1B.2	<ul style="list-style-type: none"> <li>Chenopod scrub</li> <li>Meadows and seeps</li> <li>Playas</li> <li>Valley and foothill grassland</li> <li>Alkaline microhabitats</li> </ul> Elevation: 1-835 meters. Blooms: April-October.	None. No suitable wet alkaline habitat occurs on the site. Non-native grasses on the site are very dense. Closest CNDDDB occurrence is approximately 1.3 miles from the site.
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> Woolly rose-mallow	--/--/1B.2	<ul style="list-style-type: none"> <li>Marshes and swamps</li> </ul> Elevation: 0-120 meters. Blooms: June-September.	None. Marshes or swamps are not present on the site.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	--/Rare/1B.1	<ul style="list-style-type: none"> <li>Marshes and swamps</li> <li>Riparian scrub</li> </ul> Elevation: 0-10 meters. Blooms: April-November.	None. There are no marshes, swamps, or riparian vegetation on the site.
<i>Limosella australis</i> Delta mudwort	--/--/2B.1	<ul style="list-style-type: none"> <li>Marshes and swamps</li> <li>Riparian scrub</li> </ul> Elevation: 0-3 meters. Blooms: May-August.	None. There are no marshes, swamps, or riparian vegetation on the project site.
<i>Navarretia nigelliformis</i> ssp. <i>radians</i> Shining navarettia	--/--/1B.2	<ul style="list-style-type: none"> <li>Cismontane woodland</li> <li>Valley and foothill grassland</li> <li>Vernal pools</li> </ul> Elevation: 0-3 meters. Blooms: March-July.	None. There are no vernal pools on the project site.

**Table A: Special-Status Plant Species Evaluated**

Species	Status* (Federal/State/RPR)	Habitat/Blooming Period	Potential to Occur
<i>Puccinellia simplex</i> California alkali grass	--/--/1B.2	<ul style="list-style-type: none"> <li>• Chenopod scrub</li> <li>• Meadows and seeps</li> <li>• Valley and foothill grassland</li> <li>• Vernal pools</li> </ul> Elevation: 2-930 meters. Blooms: March-May.	None. There are no vernal pools or seeps on the site.
<i>Spergularia macrotheca</i> var. <i>longistyla</i> Long-styled sand-spurrey	--/--/1B.2	<ul style="list-style-type: none"> <li>• Marshes and swamps</li> <li>• Meadows and seeps</li> </ul> Elevation: 0-255 meters. Blooms: February-May.	None. There are no marshes, swamps, or seeps on the project site.
<i>Tropidocarpum capparideum</i> Caper-fruited tropidocarpum	--/--/1B.1	<ul style="list-style-type: none"> <li>• Alkaline-clay soils in valley and foothill grassland</li> </ul> Elevation: 1-455 meters. Blooms: March-April.	None. No typical alkaline habitat occurs on the site. The closest CNDDB occurrences are based on collections made in the general area in 1888 and from 1920 to 1933.

Source: Compiled by LSA (2021).

\* Status:

Rare Plant Rank (RPR)

1B.1 = California Rare Plant Rank 1B, Threat Rank 0.1: Plant species rare, threatened, or endangered in California and elsewhere. Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat).

1B.2 = California Rare Plant Rank 1B, Threat Rank 0.2: Plant species rare, threatened, or endangered in California and elsewhere. Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat).

2B.1 = California Rare Plant Rank 2B, Threat Rank 0.1: Plant species rare, threatened, or endangered in California, but more common elsewhere. Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat).

CNDDB = California Natural Diversity Database



**Table B: Sensitive Natural Communities Evaluated**

Sensitive Natural Communities/Habitats	Status*	Presence Within Project Site
Northern Claypan Vernal Pool	G1, S1.1	None within project site.
Alkali Meadow	G2, S2.1	None within project site.
Valley Sink Scrub	G1, S1.1	None within project site.

Source: Compiled by LSA (2021).

\* Sensitive Natural Communities:

G1 = Throughout its range, this natural community is critically imperiled and at a very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 = Throughout its range, this natural community is at high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 = Throughout its range, this natural community is imperiled with a high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

S1.1 = Within California, this vegetation alliance is very threatened and is critically imperiled because of extreme rarity (often 5 or fewer populations) or because factor(s) such as very steep declines make it especially vulnerable to extirpation from the State.

S2.1 = Within California, this vegetation alliance is imperiled because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.

## WILDLIFE

There are numerous active and inactive California ground squirrel (*Otospermophilus beecheyi*) burrows throughout the site, and several ground squirrels were seen during the site visits. Numerous rock pigeons (*Columba livia*) were observed flying over the site during each visit. The trail camera also recorded one red-tailed hawk, a Swainson’s hawk, a burrowing owl, and an unidentifiable mammal that was possibly an American badger.

The CNDDDB query returned 19 special-status wildlife species with occurrences within 5 miles of the site. The USFWS official species list (Appendix A) contains 11 federally listed species, six of which had not shown up in the CNDDDB query. Although not included in the USFWS official species list or CNDDDB query results, two additional special-status species — golden eagle and monarch butterfly — are also included in Table C. The golden eagle is included due to known occurrences in the area (Kolar and Wiens 2017), and the monarch is included due to the presence of the host plant on the site. Table C summarizes the potentials for each of these 27 species to occur on the site. For birds, the potential to occur refers only to nesting, as many species may fly over or forage on the site. Special-status species that have potential to occur on the site are discussed in further detail below.

Two special-status species — western burrowing owl (*Athene cunicularia*) and Swainson’s hawk (*Buteo swainsoni*) — were seen on the site. At least two burrowing owls were seen outside burrows in May 2021 on multiple occasions. One Swainson’s hawk was detected with the trail camera.

Each of the special-status species that were determined to have some potential to occur on the site are discussed in more detail below.

**Table C: Special-Status Animal Species Evaluated**

Species	Status* (Federal/State/ CDFW)	Habitat Requirements	Potential to Occur
<b>Amphibians</b>			
<i>Ambystoma californiense</i> California tiger salamander	FT/CT/--	Spends most of its life in underground burrows. Breeds in vernal pools and ponds, including cattle stock ponds. Breeds after the first rains in late fall and early winter, when the wet season allows the salamander to migrate to the nearest pond, a journey that may be over 1 mile and take several days. Lays eggs in small clusters or singly, which hatch after 14 to 21 days. The pools must hold water for a minimum of 12 weeks for the larvae to successfully metamorphose into their terrestrial form.	Low. There are 22 CNDDDB occurrences within 5 miles of the site. The nearest occurrence is 1 mile from the site, which is close to the maximum distance the species is known to disperse. A pond approximately 0.38 mile northeast of the site may provide suitable breeding habitat. However, this feature is separated from the project site by an orchard, which individual salamanders would be unlikely to disperse through. There is a remote possibility that individual salamanders may move through the project site during rainy nights.
<i>Rana draytonii</i> California red-legged frog	FT/--/CSC	Inhabits permanent and temporary pools, streams, freshwater seeps, and marshes in lowlands and foothills. Uses adjacent upland habitat for foraging and refuge. Breeds during the wet season from December through March in slow parts of streams, lakes, reservoirs, ponds, and other waters with emergent vegetation. Lays 300 to 4,000 eggs in a large cluster, which is attached to plants near the water surface. Requires water for 4 to 7 months for tadpoles to complete metamorphosis.	Low. There are 50 CNDDDB occurrences within 5 miles of the site, and 4 of these occurrences are less than 1 mile from the site. A pond approximately 0.38 mile northeast of the site may provide suitable breeding habitat. However, this feature is separated from the project site by an orchard, which individual frogs would be unlikely to disperse through. There is a low potential for frogs to migrate through the project site, especially on rainy nights.
<b>Reptiles</b>			
<i>Actinemys (=Emys) marmorata</i> Western pond turtle	--/--/CSC	Permanent or nearly permanent water (fresh to brackish) in a wide variety of habitat types. Requires basking sites such as steep banks, logs, or rocks. Upland areas with friable soils are required for egg laying.	None. There are five CNDDDB occurrences within 5 miles of the site. There is no suitable aquatic habitat on the site, and the nearby canal is not suitable habitat.
<i>Masticophis flagellum ruddocki</i> =( <i>Coluber flagellum ruddocki</i> ) San Joaquin coachwhip	--/--/CSC	Lives primarily in grasslands and open scrub plant communities. Takes cover under rocks and boards and in rodent burrows.	Moderate. There is one CNDDDB occurrence within 5 miles of the project site, based on a collection of one snake made in 1996.

**Table C: Special-Status Animal Species Evaluated**

Species	Status* (Federal/State/ CDFW)	Habitat Requirements	Potential to Occur
<i>Arizona elegans occidentalis</i> California glossy snake	--/--/CSC	A nocturnal species that stays in burrows or under rocks during the day. Inhabits dry grasslands and chaparral. In California, ranges from San Diego County north to Alameda County.	Moderate. There are two CNDDDB occurrences within 5 miles of the site. There are loose soils and numerous burrows on the site. The site's small size and isolation due to infrastructure, agriculture, and residential housing limit the suitability of the site.
<i>Thamnophis gigas</i> Giant garter snake	FT/CT/--	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals, slow-flowing irrigation ditches, and rice fields. Requires upland burrows above flood zone for winter refuges.	None. There are no CNDDDB occurrences within 5 miles of the project site. The site is outside the known range of the species, and there is no suitable habitat on or near the site.
<i>Phrynosoma blainvillii</i> Coast horned lizard	--/--/CSC	Found in open grasslands, chaparral, and woodlands with loose or sandy soils. Feeds primarily on ants.	Low. There are two CNDDDB occurrences within 5 miles of the site. The species will inhabit grasslands, but is typically associated with sandy soils that are not abundant on the site.
<b>Birds</b>			
<i>Athene cunicularia</i> Burrowing owl	--/--/CSC	Nearly or quite level grassland, prairie, and desert floor with short or sparse vegetation. Subterranean nester that generally uses existing mammal burrows (especially of ground squirrels), but will also excavate its own burrows.	Present. There are 39 CNDDDB occurrences within 5 miles of the project site, including observations made in 1989 and 2007 adjacent to the project site. LSA biologists observed at least two burrowing owls on the site in 2021, and a trail camera captured images of one burrowing owl.
<i>Lanius ludovicianus</i> Loggerhead shrike	--/--/CSC	Nests in shrubs and small trees in grasslands.	None. There are two CNDDDB occurrences within 5 miles of the project site. The site lacks shrubs and small trees that would be suitable for nesting.
<i>Circus cyaneus</i> Northern harrier	--/--/CSC	Nests primarily in large expanses of grasslands including fallow agricultural fields, marshes, and meadows.	None. There are two CNDDDB occurrences within 5 miles of the project site. While the project site provides a large open field suitable for foraging northern harriers, it does not support densely vegetated or wet areas, such as meadows and marshes, ideal for nesting harriers. As a result, northern harriers may forage on the site, but are not expected to nest on the site.

**Table C: Special-Status Animal Species Evaluated**

Species	Status* (Federal/State/ CDFW)	Habitat Requirements	Potential to Occur
<i>Melospiza melodia</i> Modesto song sparrow	--/--/CSC	Found in riparian forests and freshwater wetlands.	None. There are three CNDDDB occurrences within 5 miles of the project site, all of which are associated with rivers, canals, or wetlands. The site lacks suitable wetland vegetation for foraging and nesting.
<i>Buteo swainsoni</i> Swainson's hawk	--/CT/--	Nests primarily in dense trees in riparian areas. Forages in open areas, including agricultural fields.	None. There are 21 CNDDDB occurrences within 5 miles of the project site. There are no trees or shrubs suitable for nesting on or adjacent to the site. The species probably forages occasionally on the site.
<i>Agelaius tricolor</i> Tricolored blackbird	--/CT/CSC	Breeds in large colonies near freshwater, preferably emergent wetland such as cattails and tules but also in thickets of willow and other shrubs. Requires nearby foraging areas with large numbers of insects.	None. There are four CNDDDB occurrences within 5 miles of the site. The project site does not support any marshes with emergent vegetation.
<i>Elanus leucurus</i> White-tailed kite	--/--/CFP	Hunts in open grassland habitats with sparse shrubs and trees. Nests near the top of trees.	None. There is no potential for the species to nest on the site, due to the absence of trees. May occasionally fly over or forage on the site.
<i>Aquila chrysaetos</i> Golden eagle	--/--/CFP	Hunts over rolling foothills and mountain areas. Nests in cliff-walled canyons or large trees in open areas.	None. There is no potential for the species to nest on the site, due to the absence of trees, transmission towers, cliffs, or other suitable nesting sites. May occasionally fly over or forage on the site.
<b>Mammals</b>			
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE/CT/--	Found primarily in flat areas with short, sparse vegetation in the southern San Joaquin Valley. Feeds on kangaroo rats and other small rodent species, but will also consume insects, hares, mice, and lizards. Lives in dens that it either excavates itself or moves into atypical dens, including manmade structures.	None. There are no CNDDDB occurrences within 5 miles of the site. No nearby occurrences were recorded within the last 20 years. No likely dens were seen during the biological surveys, and trail cameras deployed at dens for several evenings did not detect the species.

**Table C: Special-Status Animal Species Evaluated**

Species	Status* (Federal/State/ CDFW)	Habitat Requirements	Potential to Occur
<i>Taxidea taxus</i> American badger	--/--/CSC	Open grassland areas with friable soils and plentiful prey such as pocket gophers and ground squirrels.	Moderate. There are seven CNDDDB occurrences within 5 miles of the site. There are ground squirrels on the site which provide an adequate prey base. No potential dens were detected during the site visits, but badgers may hunt on the site occasionally.
<b>Invertebrates</b>			
<i>Callophrys mossii bayensis</i> San Bruno elfin butterfly	FE/--/--	Known to occur only on slopes of the coastal mountains in San Mateo County. Lays eggs on the larval host plant stonecrop ( <i>Sedum spathulifolium</i> ).	None. The project site is outside the known range of the species and does not contain the host plant. There are no CNDDDB occurrences within 5 miles of the site.
<i>Danaus plexippus</i> Monarch butterfly	FC/--/--	Migrates through the San Joaquin Valley primarily in the spring and fall. Lays eggs on the larval host plant milkweed.	Moderate. Milkweed is present on the site. The CNDDDB does not track monarch butterfly observations, except at coastal overwintering sites.
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT/--/--	Occurs only in the Central Valley and associated foothills with blue elderberry ( <i>Sambucus mexicana</i> ). Lives in elderberry bushes with a stem diameter at ground level of at least 1 inch. Lays eggs in the stems of elderberries. Eggs hatch into larvae, which transform to the adult stage after up to 2 years.	None. No elderberry plants occur on or near the site. There are no CNDDDB occurrences within 5 miles of the site.
<i>Branchinecta conservation</i> Conservancy fairy shrimp	FE/--/--	Found only in vernal pools in California's Central Valley and one population in Ventura County.	None. No vernal pools are present on the project site. There are no CNDDDB occurrences within 5 miles of the site.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT/--/--	Inhabits vernal pools and swales during all stages of its life cycle.	None. No vernal pools are present on the site. There are three CNDDDB occurrences within 5 miles of the site.
<i>Branchinecta longiantenna</i> Longhorn fairy shrimp	FE/--/--	Found in seasonal pools that range from clear to turbid, including depressions in sandstone outcroppings near Tracy, grass-bottomed pools in Merced County, and claypan pools in San Luis Obispo County.	None. No vernal pools are present on the site. There are six CNDDDB occurrences within 5 miles of the site, but all are associated with pools in sandstone rock outcroppings.

**Table C: Special-Status Animal Species Evaluated**

Species	Status* (Federal/State/ CDFW)	Habitat Requirements	Potential to Occur
<i>Lepidurus packardii</i> Vernal pool tadpole shrimp	FT/--/--	Inhabits a wide variety of seasonal aquatic habitats, including vernal pools, seasonal wetlands, ephemeral stock tanks, and manmade ditches. Reproduces via cysts that persist in the dried soil of the water feature until it refills during the rainy season.	None. No vernal pools or other seasonal wetlands are present on the project site. There are no CNDDB occurrences within 5 miles of the site.
<b>Fish</b>			
<i>Hypomesus transpacificus</i> Delta smelt	FT/CE/--	Only found in estuarine waters from the Sacramento-San Joaquin confluence to San Pablo Bay. Can tolerate a wide range of salinities and moves into river channels and tidally influenced backwater sloughs.	None. There is no suitable habitat on or near the site. There are no CNDDB occurrences within 5 miles of the site.
<i>Thaleichthys pacificus</i> Eulachon	FT/--/--	Spends most of its adult life in the Pacific Ocean but returns to the freshwater streams where it hatched to spawn. Adults die after spawning.	None. There is one CNDDB occurrence within 5 miles, but no suitable perennial streams are located on or near the site.
<i>Oncorhynchus mykiss irideus</i> Steelhead - Northern California Distinct Population Segment	FT/--/--	Requires cool, swift moving perennial streams with clean, unsilted gravel beds for spawning and egg deposition.	None. There is one CNDDB occurrence within 5 miles, but no suitable perennial streams are located on or near the site.

Source: Compiled by LSA (2021).

\* Status:

FT = Federally listed as threatened; FE = Federally listed as endangered; FC: Federal candidate species

CT = California State listed as threatened; CE = California State listed as endangered; CSC = California species of special concern; CFP = California Fully Protected

CDFW = California Department of Fish and Wildlife

CNDDB = California Natural Diversity Database

### *California Tiger Salamander*

**Status and Natural History.** The California tiger salamander (CTS) has been divided into three distinct population segments by the USFWS. The project site is located within the Central California Population Segment, which was listed as Threatened under the ESA. It is also listed as Threatened under the CESA. CTS occurs in grassland, oak woodland, and coastal sage scrub communities in the San Joaquin Valley and central Coast Ranges of California, from southern Solano County to eastern Kern County and in the Sierra Nevada foothills, from southern Sacramento County to northern Tulare County (Stebbins 2003). Adult CTS spend the majority of the year below ground in rodent burrows or other natural crevices (Shaffer et al. 1993). Individuals are most frequently observed near burrows of ground squirrels or Botta's pocket gophers (Shaffer et al. 1993). They move to seasonal ponds in response to winter rains to breed. Eggs hatch into larvae after several days. The larval stage has been reported to last 3 to 6 months, with metamorphosis beginning in the late spring or early summer (Petranka 1998; U.S. Fish and Wildlife Service 2017; Trenham et al. 2000). The metamorphosed juveniles leave the pond as it dries and disperse to underground retreats.

**Occurrence in the Project Vicinity.** Within eastern Alameda County, CTS are known from multiple records throughout grassland areas. At least 22 occurrences have been recorded in the CNDDDB within a 5-mile radius of the project site (CDFW 2021). Two of these occurrences are based on observations made within 2 miles of the site. The grassland with burrows within the project site provides suitable upland habitat for CTS, and a pond approximately 0.4 mile northeast of the site may provide suitable breeding habitat. However, most of the immediate area around the pond is intensively cultivated. There is therefore a very low potential for CTS to migrate through the project site on rainy nights.

### *California Red-Legged Frog*

**Status and Natural History.** The California red-legged frog (CRLF) is a California Species of Special Concern. It was federally listed as a threatened species on May 23, 1996. Critical habitat was designated on March 17, 2010.

CRLF breed from November through April (Storer 1925). Egg masses hatch in 6 to 14 days (USFWS 2002). Larvae metamorphose in 3.5 to 7 months, typically between July and September (Storer 1925; USFWS 2002). During dry periods, CRLF are seldom found far from water. However, during wet weather, individuals may make overland excursions through upland habitats over distances of up to 2 miles. During the summer, CRLF may disperse from their breeding habitat to forage and seek shelter if water is not available (USFWS 2002). Breeding sites include a variety of aquatic habitats: streams, deep pools, backwaters within streams and creeks, ponds, marshes, and lagoons. Breeding adults are commonly found in deep, still or very slow-moving water with dense, shrubby riparian or emergent vegetation (Hayes and Jennings 1988).

**Occurrence in the Project Vicinity.** There are 50 CNDDDB occurrences within 5 miles of the site, and 4 of these occurrences are less than 1 mile from the site. A pond approximately 0.4 mile northeast of the site may provide suitable breeding habitat. However, this feature is separated from the project site by an orchard. There is a low potential for CRLF to migrate through the project site, especially on rainy nights. CRLF could also use burrows on the site as shelter during the summer.

### *San Joaquin Coachwhip*

**Status and Natural History.** The San Joaquin coachwhip is a California Species of Special Concern. It is found in grasslands and open scrub areas without trees throughout the San Joaquin Valley and associated foothills. It hunts during the day and eats small animals such as rodents, lizards, and birds. It takes refuge in rodent burrows or under objects on the surface of the ground.

**Occurrence in the Project Vicinity.** The CNDDDB search returned one occurrence of the San Joaquin coachwhip within 5 miles of the project site, based on an individual collected in 1996 approximately 2.2 miles south of the site (CDFW 2021). The site and lands to the south provide suitable habitat for the species.

### *California Glossy Snake*

**Status and Natural History.** The glossy snake is a California Species of Special Concern. It is found in arid grasslands, scrub, and chaparral from Alameda County south to Baja Mexico. It is nocturnal and hunts during the day and hides in burrows or under rocks during the day. It feeds on diurnal lizards while they sleep, as well as other small animals.

**Occurrence in the Project Vicinity.** The CNDDDB search returned two occurrences of the glossy snake within 5 miles of the project site (CDFW 2021). The site and lands to the south provide suitable habitat for the species.

### *Coast Horned Lizard*

**Status and Natural History.** The coast horned lizard is a California Species of Special Concern. The coast horned lizard inhabits sparsely vegetated openings with loose, often sandy soils in a variety of habitats, including scrubland, grassland, chaparral, and coniferous forests. The species has a patchy range from south of the Golden Gate and Carquinez Straits, south to San Diego County and eastward into the Sierra Nevada. Horned lizards feed almost exclusively on ants and are frequently found in association with ant colonies.

**Occurrence in the Project Vicinity.** There are two CNDDDB occurrences of coast horned lizard within 5 miles of the site (CDFW 2021), both based on observations made in grazed grasslands. The project site does not have much of the sandy soil the horned lizard prefers, and no ant colonies were seen during the site surveys. Therefore, there is a low potential for the species to occur on the site.

### *Burrowing Owl*

**Status and Natural History.** Burrowing owl is a California Species of Special Concern. Historically it was found throughout most of lowland California except in forested areas. Its breeding range has remained largely the same but within this overall range there have been local extirpations and declines, largely due to urbanization. It is still relatively common in the interior parts of Alameda County. Burrowing owls inhabit grasslands and other areas of short vegetation including in agricultural areas and near developed areas. They require underground burrows for roosting and nesting, most commonly originally dug by ground squirrels, but will also use artificial structures such as culverts, pipes, and rock riprap. They are capable of digging their own burrows in loose soil.



**Occurrence in the Project Vicinity.** Burrowing owls were observed on the site during the field survey. Burrowing owl use seemed to be more concentrated on the western half of the site, but suitable burrows are scattered fairly evenly throughout the site. There are 39 CNDDDB occurrences within 5 miles of the project site, including observations made in 1989 and 2007 adjacent to the project site.

#### *Swainson's Hawk*

**Status and Natural History.** The Swainson's hawk was listed as Threatened by the CDFW on April 17, 1983. It is not federally listed. Swainson's hawk is an uncommon breeding summer resident and migrant of the Central Valley of California. This species typically nests in scattered trees within grassland, shrubland, or agricultural landscapes (e.g., along stream courses or in open woodlands). The stick nests are often at the edge of narrow bands of riparian vegetation, in isolated oak woodland, and in lone trees, roadside trees, or farmyard trees, as well as in adjacent urban residential areas. Individual hawks will fly up to 18 miles from their nest to search for prey.

**Occurrence in the Project Vicinity.** The CNDDDB search returned 21 occurrences of Swainson's hawks within 5 miles of the project site (CDFW 2021). The closest CNDDDB occurrence is based on an observation made in 1994 approximately 0.75 mile project site. The second-closest observation was made in 2003, approximately 1.85 miles from the project site. Since then the areas where the nest trees were have been developed. There are no trees suitable for nesting on or adjacent to the site, and a review of recent aerial imagery indicates it is unlikely the species will nest within 1 mile of the site. The grassland on the site provides a small area that is suitable for the species to forage on, as indicated by the one Swainson's hawk that was recorded on the site by the trail camera.

#### *American Badger*

**Status and Natural History.** The American badger is a California Species of Special Concern. The historic range of badgers in California included most lowland areas with the exception of the humid coastal forests in the northwest portion of the state and other areas of dense forest. They were also present in the high mountains in large meadow systems and alpine fell fields. They have disappeared from large portions of their historic range in the Central Valley due to cultivated agriculture and in coastal areas (both north and south) due to urbanization. Badgers continue to be present in eastern Contra Costa and Alameda counties.

Badger habitat is usually open, uncultivated ground. This includes grassland, savannas, and mountain meadows. In eastern Alameda and Contra Costa counties badgers are often found in the rolling grasslands where cattle grazing is the primary land use. Badgers prey mainly upon fossorial mammals by using their powerful claws to dig out their burrows. Individual badgers have a large home range and may use several dens. There is a moderate potential for the species to hunt on the project site.

**Occurrence in the Project Vicinity.** The CNDDDB search returned seven occurrences of American badgers within 5 miles of the project site (CDFW 2021). Suitable grassland habitat is present at the project site and American badgers could both forage and den at the site. However, the site is too small to sustain a population of badgers, and the residential development to the east, orchard to the north, and canal to the west reduce the ability of badgers to move through the site. No potential

badger dens were observed during the field survey. However, one image from a remote camera taken at night recorded what may have been a badger.

### *San Joaquin Kit Fox*

**Status and Natural History.** The SJKF is a subspecies of kit fox. The USFWS listed this subspecies as endangered March 11, 1967; it is listed as a threatened species by the CDFW. Critical habitat for SJKF has not been designated. The SJKF is found primarily in the San Joaquin Valley area of California. SJKF currently inhabit portions of the San Joaquin Valley and the surrounding foothills of the Coast Ranges, Sierra Nevada, and Tehachapi Mountains, from southern Kern County north to Stanislaus County on the western side of the San Joaquin Valley. There are no known areas currently occupied by SJKF in the portions of Alameda, Contra Costa, and San Joaquin counties (Constable et al. 2009, USFWS 2010) where they previously occurred.

SJKF occur in a variety of habitats, including grasslands, scrublands, vernal pool areas, alkali meadows and playas, and an agricultural matrix of row crops, irrigated pastures, orchards, vineyards, and grazed annual grasslands (USFWS 1998). In the northern part of its range (including Alameda County) most habitat on the valley floor has been eliminated. They previously occurred primarily in foothill grasslands, valley oak savanna, and alkali grasslands (USFWS 1998). In addition to habitat loss, San Joaquin kit fox were likely extirpated by the use of rodenticides to reduce small mammal populations. San Joaquin kit fox were exposed to rodenticides in the prey animals that had it in their systems, and also had their prey base reduced.

**Occurrence in the Project Vicinity.** The CNDDDB lists 18 occurrences of SJKF within 5 miles of the project site (CDFW 2021). The closest CNDDDB occurrence is based on a road-killed individual found in the early 1970s approximately 0.9 mile from the site. The most recent of the 18 occurrences was made in 2000, approximately 3 miles from the site. A more recent survey of Contra Costa County and Alameda County within the known range of the SJKF found no evidence of recent occupancy (Clark et al. 2003). Despite extensive surveys conducted in 2002 in Alameda County, no sign of SJKF was found.

### *Monarch Butterfly*

**Status and Natural History.** The monarch butterfly became a Candidate species for listing under the Endangered Species Act. Candidate species have no legal protection under the ESA, but the monarch does meet the CEQA definition of a special-status species.

**Occurrence in the Project Vicinity.** The CNDDDB only tracks large overwintering colonies of monarch butterfly, which occur in coastal areas. No monarchs were observed during the surveys, but monarchs have been documented in 2021 in Tracy approximately 10 miles east of the site (iNaturalist 2022). Monarchs have also been observed breeding in Alameda County (Western Monarch Milkweed Mapper 2022). Due to the presence of milkweed plants, there is a moderate potential for monarchs to use the site.

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## CRITICAL HABITAT

Designated critical habitat for four federally listed species — Contra Costa goldfields, vernal pool fairy shrimp, California red-legged frog, and Delta smelt — is located within 5 miles of the site. The site is not located within designated critical habitat for any species. As previously stated, the site does not have any aquatic features that could serve as habitat for these four species.

## IMPACTS ANALYSIS AND MITIGATION

The CEQA guidelines for assessing whether an impact from a project will have a “significant” effect on biological resources are listed in State CEQA Guidelines Section 15065. It states that a lead agency shall find that a project may have a significant effect on the environment if any of the following conditions may occur:

- the potential to substantially degrade the quality of the environment
- substantially reduce the habitat of a fish or wildlife species
- cause a fish or wildlife population to drop below self-sustaining levels
- threaten to eliminate a plant or animal community
- substantially reduce the number or restrict the range of an endangered, rare, or threatened species

In addition to the criteria in Section 15065, State CEQA Guidelines Appendix G provides a checklist of six additional potential impacts to consider when analyzing a project. The impacts listed in Appendix G may or may not be significant, depending on the level of the impact. For biological resources, this includes whether the project would:

- a. have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service
- b. have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service
- c. have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act
- d. 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
- e. conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- f. conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

The following impact assessment addresses each of the six significance criteria (A-F) above.

- a. **Impacts on Special-Status Species:** *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS (Less than Significant with Mitigation)*

No impacts to special-status plant species would occur, given that none are expected to occur within or in the immediate vicinity of the project site. Potential construction- and operation-period impacts to nine special-status wildlife species — California tiger salamander, California red-legged frog, San Joaquin coachwhip, glossy snake, Coast horned lizard, burrowing owl, Swainson's hawk, American badger, and monarch butterfly — are discussed below.

**Potential Impacts on all Special-Status Species:** Construction of the project could potentially kill, injure, or alter the behavior of special-status species on the site, a potentially significant impact. Implementation of Measures BIO-1.1 and BIO-1.2 would help reduce impacts to a less than significant level:

**Measure BIO-1.1:** A qualified biologist will conduct an environmental education program for all persons employed or otherwise working on the project site before they perform any work. The program shall consist of a presentation from the biologist that includes a discussion of the biology and general behavior of special-status species on or near the site; information about the distribution and habitat needs of the species; sensitivity of the species to human activities; the status of the species pursuant to the Federal Endangered Species Act, the California Endangered Species Act, and the California Fish and Game Code including legal protection; recovery efforts; penalties for violations; and any project-specific protective measures described in this document or any subsequent documents or permits. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers before their performing work on the site. The biologist shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry on the site. Upon completion of the program, employees shall sign a form stating they attended the program and understand all the protection measures.

**Measure BIO-1.2:** A qualified biologist will be on the site daily to monitor initial grubbing/vegetation clearing, grading, and ground disturbing activities. The biologist will have the authority to stop work that may impact special-status species.

**Potential Impacts to CTS, CRLF, San Joaquin Coachwhip, and California Glossy Snake:** Construction of the project has the potential to injure or kill CTS, CRLF, San Joaquin coachwhip, and California glossy snake that may be in rodent burrows during grading or installation of the monopoles. These species could become entangled in the plastic netting wrapped around erosion-control devices. These species could become entrapped in steep-sided trenches or walls. The proposed project would not impact any potential breeding habitat for CTS or CRLF. Because CTS and CRLF generally migrate at night during rain events and construction activities would occur during daylight hours, no impact on migrating individuals is expected. Operation of the proposed solar facility is not anticipated to impact CTS or glossy snake because the adults are only active on the surface at night.

Potential impacts to these species would be reduced to less than significant with implementation of Measures BIO-1.1, 1.2, 2.1, 2.2, and 2.3.

**Measure BIO-2.1:** The Applicant shall include in the contract specifications a requirement to use tightly woven fiber of natural materials (e.g., coir rolls or mats) or similar material for erosion control. Plastic mono-filament netting (erosion control matting) or similar material shall be prohibited, to prevent the entrapment of wildlife.

**Measure BIO-2.2:** Surveys for CTS, CRLF, San Joaquin coachwhip, California glossy snake, and Coast horned lizard shall be conducted by a qualified biologist within 24 hours prior to the initiation of any vegetation clearing or ground disturbing activities. All suitable habitat including refuge such as burrows, under rocks, duff, debris, etc., shall be thoroughly inspected. Any listed wildlife that are encountered will be allowed to leave the work area of their own volition.

**Measure BIO-2.3:** To avoid entrapment, injury, or mortality of listed species resulting from falling into steep-sided holes or trenches, all excavated holes or trenches deeper than 12 inches shall be covered at the end of each workday with plywood or similar materials. Larger excavation that cannot easily be covered shall be ramped at the end of the workday to allow trapped animals an escape method.

**Potential Impacts to Burrowing Owl:** Construction of the project has the potential to crush or entomb burrowing owls in burrows. Construction work near an occupied burrow could impact breeding or wintering western burrowing owls through general disturbance. Installation of the solar panels will permanently impact 11 acres of burrowing owl habitat by lowering the habitat quality. Potential impacts to burrowing owl would be reduced to less than significant with implementation of Measures BIO-1.1, 1.2, 3.2, 3.3, and 3.4.

**Measure BIO-3.1:** Prior to initiating construction activities, a CDFW-approved biologist shall conduct surveys for burrowing owl within 500 feet of the project site, where safely accessible. This measure incorporates avoidance and minimization guidelines from the CDFW 2012 Staff Report on Burrowing Owl Mitigation. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls. Surveys shall take place near sunrise or sunset in accordance with CDFW survey guidelines. All burrows or burrowing owls shall be identified and mapped. Surveys shall take place no more than 30 days prior to construction. During the breeding season (February 1–August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

**Measure BIO-3.2:** If burrowing owls are found during the breeding season (February 1–August 31), the project proponent shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is

occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the nest is inactive. During the nonbreeding season (September 1–January 31), the project proponent shall avoid the owls and the burrows they are using. Avoidance shall include the establishment of a buffer zone.

**Measure BIO-3.3:** If occupied burrows for nonbreeding burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within an appropriate buffer zone as recommended by the biologist in coordination with CDFW by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

**Measure BIO-3.4:** To mitigate for the alteration of burrowing owl habitat, 10 acres on the western and northern edges of the site will be protected in perpetuity under a conservation easement or deed restriction. This land is contiguous with the levee and open space associated with the Mendota Canal. A mitigation and management plan (MMP) with success criteria will be developed for this area and approved by CDFW.

**Potential Impacts to Swainson’s Hawk:** Impacts on Swainson’s hawk foraging habitat will include the permanent loss of approximately 11 acres of open grassland foraging habitat. The project will temporarily affect approximately 5 acres of mostly non-native annual grassland within the project site. Much of this area is characterized by ruderal, often sparse vegetation, trash accumulation, roadside gravel, and fill. The area next to the roadway is also subject to noise from passing vehicles and presents a strike risk to the birds and is thus a sub-optimal foraging area. There are no suitable nest trees on or adjacent to the project site. The project site is a relatively small, disjunct parcel of habitat adjacent to dense residential development; by itself it cannot support a breeding pair of Swainson’s hawk. However, the incremental loss of foraging habitat could be a significant impact. Potential impacts to Swainson’s hawk would be reduced to less than significant with implementation of Measures BIO-1.1, 1.2, 3.4, and 4.1.

**Measure BIO 4.1:** The MMP described in Measure BIO-3.4 for the 10-acre conservation area shall include a prescription for managing the area as habitat for Swainson’s hawk. The MMP will include success criteria for Swainson’s hawk habitat.

**Potential Impacts to San Joaquin Kit Fox:** Kit fox are extirpated from the area and are not expected to use the site. In the event kit fox recolonize the northern part of their range and move into the project site area at some future time, they will be able to move through the wildlife-friendly fence and use the protected 10 acres described in Measure Bio 3.4. Therefore, impacts to San Joaquin kit fox will be less than significant.

**Potential Impacts to American Badger:** Initial grading and ground disturbance of the site could injure or kill American badgers in dens or burrows, in the event any are present on the site at the time of the disturbance. Potential impacts to these species would be reduced to less than significant with implementation of Measures BIO-1.1, 1.2, 5.1, and 5.2.

**Measure BIO-5.1:** Pre-construction surveys shall be conducted for the American badger no more than 14 days prior to the initiation of ground-disturbing activities. Surveys shall be conducted by a qualified wildlife biologist with experience and knowledge in identifying badger burrows and include walking parallel transects looking for badger burrows and sign. Any badger dens identified shall be flagged and mapped.

**Measure BIO-5.2:** In the event active badger dens are identified, a no-work buffer of 200 feet shall be established around the den and associated occupied areas. If avoidance is not feasible, a biologist shall determine if the burrow is being used as an active maternity den through utilization of remote cameras. If young are determined to be present, the burrow shall be avoided until the young have vacated the burrow as determined by a qualified biologist. If the burrow is determined not to be an active maternity den and young are not present, in coordination with the CDFW, a one-way eviction door shall be installed between September 1 and January 1 to passively relocate the badger and to avoid impacts during the breeding season. If the badger digs back into the burrow, CDFW staff may allow the use of live traps to relocate badgers to suitable habitat from the area of project impact.

**Potential Impacts to Monarch Butterfly:** Development of the site will result in the loss of small numbers of narrow-leaved milkweed, the larval food plant for the monarch butterfly. If monarch eggs, larvae, or chrysalides are on the milkweed at the time they are removed it would result in mortality. After construction, the solar panels will lead to the loss of milkweed plants and therefore monarch breeding habitat. Potential impacts to monarch butterfly would be reduced to less than significant with implementation of Measures BIO-1.1, 1.2, 3.4, 6.1, 6.2, and 6.3.

**Measure BIO 6.1:** The MMP described in Measure BIO-3.4 for the 10-acre conservation area shall include prescription of an appropriate seed mix and planting plan targeted for the monarch butterfly, including milkweed and native flowering plant species known to be visited by monarch butterflies and containing a mix of flowering plant species with continual floral availability through the entire breeding season for monarch butterfly (early spring to fall). The MMP will include success criteria for monarch butterfly.

**Measure BIO 6.2:** A qualified biologist will conduct a minimum of two pre-construction surveys conducted within 30 days during appropriate activity periods (i.e., March through September) and conditions prior to the start of ground disturbing activities to look for milkweed host plants and signs of monarch breeding activity (larvae or chrysalides). Appropriate conditions for conducting the survey include surveying when temperatures are above 60° Fahrenheit (15.5°Celsius) and not during wet conditions (e.g., foggy, raining, or drizzling). The survey should be conducted at least 2 hours after sunrise and 3 hours before sunset and should occur at least 1 hour



after rain subsides. Preferably, the survey should be conducted during sunny days with low wind speeds (less than 8 miles per hour) but surveying during partially cloudy days or overcast conditions are permissible if the surveyors can still see their own shadow.

**Measure BIO 6.3:** If monarch butterflies are observed within the project site, a plan to protect monarch butterflies shall be developed and implemented in consultation with USFWS. The plan shall include, but not be limited to, the following measures:

- Specifications for construction timing and sequencing requirements;
- Establishment of appropriate no-disturbance buffers for milkweed and construction monitoring by a qualified biologist to ensure compliance if milkweed is identified;
- Restrictions associated with construction practices, equipment, or materials that may harm monarch butterflies (e.g., avoidance of pesticides/herbicides, BMPs to minimize the spread of invasive plant species); and
- Provisions to avoid monarch butterflies if observed away from a milkweed plant during project activity (e.g., ceasing of project activities until the animal has left the active work area on its own volition).

*b. **Impacts on Sensitive Communities:** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (No Impact)*

No riparian habitats or other sensitive natural communities are present on or immediately adjacent to the project site, and thus none will be impacted by the project.

*c. **Impacts on Wetlands:** Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (No Impact)*

No wetlands or other waters of the U.S./state occur on, or immediately adjacent to, the project site. Thus, the project would result in no direct or indirect impacts on jurisdictional wetlands.

*d. **Impacts on Wildlife Movement:** 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 (Less than Significant)*

For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller, they are unable to support as many individuals (patch size), and second, the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

The proposed project activities are located within an already disturbed footprint, which is largely surrounded by existing development. Furthermore, the grassland to be developed on the project site is mostly separated from similar nearby habitats by the Mendota Canal, a busy road, and orchard, and residential development. As a result, the project site does not currently provide high-quality areas for wildlife movement. Nevertheless, some animals are expected to move through the site.

The project would further reduce the value of the project site for use by dispersing animals by removing vegetation and solar input. Development of grassland would result in the removal of natural habitat that is used by resident and dispersing wildlife. Noise and human activity would increase during construction of the project, potentially altering animal behavior and discouraging some animals from moving through the site. Lighting during operation of the project could disorient migrating animals.

However, the project's impacts on wildlife movement are not expected to substantially impede the movement of any species, or of animals in general, within the site vicinity. Many animals are still expected to move through the site despite any incremental increase in project noise, lighting, or human activity. Also, the project site is not the only location where animals can move between open space areas to the north and south; a vegetated strip similar to that on the project site is present to the west of the project site along the Mendota Canal. Therefore, the proposed project would not result in the fragmentation of natural habitats or substantial impediments to wildlife movement, and any common, urban adapted species that currently move through the project site would continue to be able to do so following project construction. As such, the project would not significantly interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, and this impact would be less than significant.

Small numbers of native bird species likely nest on the project site, but this does not meet the definition of a wildlife nursery site. The project site does not provide extensive and/or high-quality habitat areas that would support large breeding populations of any wildlife species, and therefore no native wildlife nursery sites are present.

*e. **Impacts due to Conflicts with Local Policies:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (No Impact)*

The project would not conflict with any local policies or ordinances regarding biological resources. Thus, there would be no impact.

*f. **Impact due to Conflicts with an Adopted Habitat Conservation Plan:** Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan (No Impact)*

The project site is not located within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Thus, the project would not conflict with any such documents. The project also

would not conflict with the goals or policies of the Alameda County General Plan's East County Area Plan. Therefore, there would be no impact.

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## FIGURES

Figure 1: Project Location

Figure 2: Project Site

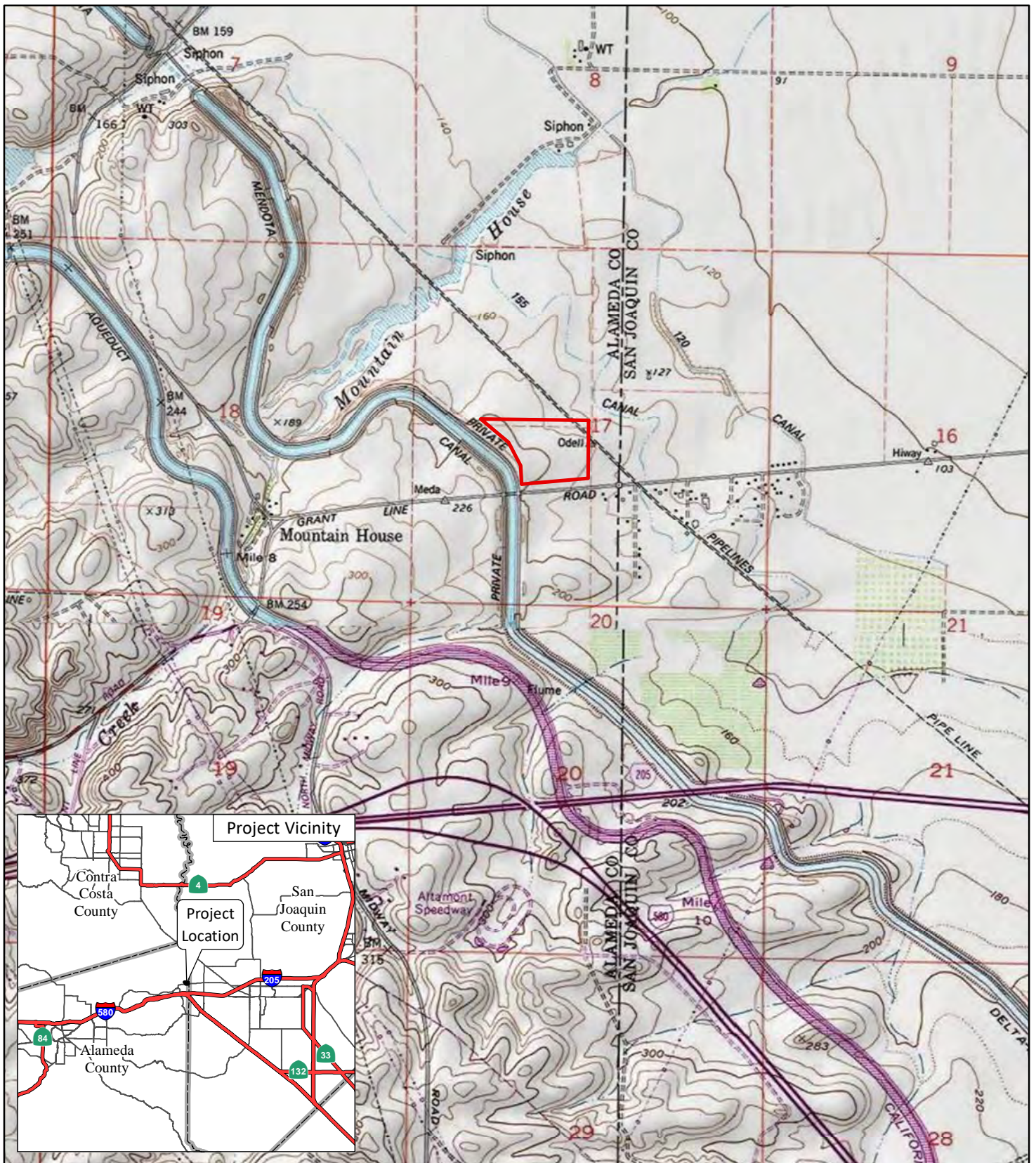
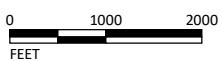


FIGURE 1

LSA

LEGEND

Project Site



SOURCE: USGS 7.5' Quad.- Clifton Court Forebay, CA (1978) and Midway, CA (1980)  
 \\PTR11\images\PLN2101\GIS\Maps\Cultural\Figure1\_ProjectLocation.mxd (7/6/2021)

Alameda Grant Line Solar 1 Project  
 Project Location and Vicinity



FIGURE 2

LSA

LEGEND

Project Site



0 375 750  
FEET

SOURCE: Bing Maps, 2021

\\PTR11\images\PLN2101\GIS\Maps\Cultural\Figure2\_ProjectSite.mxd (7/6/2021)

Alameda Grant Line Solar 1 Project  
Project Site



## **APPENDIX A**

### **USFWS SPECIES LIST**



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Sacramento Fish And Wildlife Office  
Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846  
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:

May 17, 2021

Consultation Code: 08ESMF00-2021-SLI-1785

Event Code: 08ESMF00-2021-E-05205

Project Name: PLN2101

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Sacramento Fish And Wildlife Office**

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

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## Project Summary

Consultation Code: 08ESMF00-2021-SLI-1785

Event Code: 08ESMF00-2021-E-05205

Project Name: PLN2101

Project Type: POWER GENERATION

Project Description: Potential solar farm

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.75707295,-121.56099249433669,14z>



Counties: Alameda County, California

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## Endangered Species Act Species

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### Mammals

NAME	STATUS
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2873">https://ecos.fws.gov/ecp/species/2873</a>	Endangered

### Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/5524">https://ecos.fws.gov/ecp/species/5524</a>	Threatened
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4482">https://ecos.fws.gov/ecp/species/4482</a>	Threatened

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## Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Insects

NAME	STATUS
San Bruno Elfin Butterfly <i>Callophrys mossii bayensis</i> There is <b>proposed</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/3394">https://ecos.fws.gov/ecp/species/3394</a>	Endangered
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a>	Threatened

## Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

## Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> <a href="https://ecos.fws.gov/ecp/species/321#crithab">https://ecos.fws.gov/ecp/species/321#crithab</a>	Final

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