

## Biological Resources Report for the Jacumba Solar Energy Project

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### 4 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

#### 4.1 Guidelines for the Determination of Significance

The County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a).

**Guideline 4.2** The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

- A. Project-related grading, clearing, construction, or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in County of San Diego 2010a, Table 5, excluding those without a mitigation ratio) on or off the project site. This Guideline would not apply to small remnant pockets of habitat that have a demonstrated limited biological value. No de minimus standard is specified under which an impact would not be significant; however, minor impacts to native or naturalized habitat that is providing essentially no biological habitat or wildlife value can be evaluated on a case-by-case basis to determine whether the projected impact may be less than significant. For example, an impact to native or naturalized upland habitat under 0.1 acre in an existing urban setting may be considered less than significant (depending on a number of factors). An evaluation of this type should consider factors including, but not limited to, type of habitat, relative presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in the project vicinity, and current degree of urbanization and edge effects in project vicinity, etc. Just because a particular habitat area is isolated, for example, does not necessarily mean that impacts to the area would not be significant (e.g., vernal pools). An area that is disturbed or partially developed may provide a habitat "island" that would serve as a functional refuge area "stepping stone" or "archipelago" for migratory species.
- B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by U.S. Army Corps of Engineers (ACOE),

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California Department of Fish and Game (CDFG), and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

- C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historically low groundwater levels.
- D. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing undeveloped lands or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests, or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown by the best available science to adversely affect the functioning of sensitive habitats.
- E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. If the project is subject to the Resource Protection Ordinance (RPO), buffers of a minimum of 50 feet and a maximum of 200 feet to protect wetlands are required based on the best available science available to the County at the time of adoption of the ordinance. The following examples provide guidance on determining appropriate buffer widths:
  - A 50-foot wetland buffer would be appropriate for lower quality RPO-wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive, and slopes do not exceed 25%.
  - A wetland buffer of 50 to 100 feet is appropriate for moderate- to high-quality RPO-wetlands that support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25%) with highly erosive soils. Within the 50- to 100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.

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- Wetland buffers of 100 to 200 feet are appropriate for RPO-wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species, or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.
- Buffering of greater than 200 feet may be necessary when an RPO-wetland is within a regional corridor or supports significant populations of wetland-associated sensitive species and lies adjacent to land use(s) that could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO-wetland buffers, actions may be subject to other laws and regulations (such as the Endangered Species Act) that require greater wetland buffer widths.

### 4.2 Analysis of Project Effects

The Proposed Project will result in significant impacts and are mitigated under the guidelines presented in Section 4.1 for the following reasons.

#### 4.2.1 Project Effects Relevant to Guideline 4.2.A

Short-term, construction-related, or temporary direct impacts to special-status upland vegetation communities would primarily result from construction activities. Clearing, trampling, or grading of special-status vegetation communities outside designated construction zones could occur in the absence of avoidance and mitigation measures. Potential temporary direct impacts to special-status vegetation communities on site would be significant, absent mitigation (**Impact V-1**). However, these short-term, direct impacts will be mitigated to a level below significance through implementation of mitigation measures **M-BI-1** (biological monitoring), which prevents inadvertent disturbance to areas outside of the limits of grading, including special-status vegetation communities; **M-BI-2** (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits), which prohibits planting of invasive plants that can compete with native plants for resources and alter habitat; and **M-BI-3** (preparation of a biological monitoring report), which ensures the required biological monitoring has been conducted to prevent inadvertent impacts to special-status vegetation communities.

Permanent direct impacts to disturbed land are not considered significant. Permanent direct impacts to 103.2<sup>16</sup> acres of special-status upland vegetation communities would occur as a result of the Proposed Project. Permanent direct impacts to special-status upland vegetation communities would be significant, absent mitigation (**Impact V-2**). This impact will be

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<sup>16</sup> Includes fuel modification zone acres.

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mitigated through mitigation measure **M-BI-4** (habitat preservation and management), which will conserve approximately 180.4 acres of equivalent function and value.

Table 4 in Section 2.2 summarizes temporary and permanent direct impacts to vegetation communities and land covers found in the Project area. Figure 9 illustrates the distribution of biological resources on site and the locations where proposed impacts would occur. Table 10, Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas, summarizes the impacts and required mitigation for special-status vegetation communities in the Project area. Mitigation ratios provided in Table 10 conform to County guidelines (County of San Diego 2010b). Open space design and resources are shown in Figure 9.

Semi-desert chaparral, Sonoran mixed woody scrub, and upper Sonoran subshrub scrub have many plant species and other characteristics in common. For example, areas mapped as semi-desert chaparral have species composition similar to Sonoran mixed woody shrub but have a lower percent cover of creosote; areas mapped as upper Sonoran subshrub have open structure and plant species similar to semi-desert chaparral, but lack creosote completely. The 26.3 acres of excess mitigation acreage of semi-desert chaparral would provide functions and values similar to the Sonoran mixed woody scrub (3.2 acres) and upper Sonoran subshrub scrub (3.0 acres) because the species compositions are similar and there is similar soils distribution within the open space areas compared to the Proposed Project impact areas. These characteristics, combined with the overall openness and relatively flat terrain of the site, would allow for these open space areas to provide similar functions and values because they have potential to provide suitable habitat for the same types of plant and wildlife species. Although there would be a deficit of 6.2 acres at the required 1:1 mitigation ratio for Sonoran mixed woody scrub and upper Sonoran subshrub scrub, overall, the Project would have an excess of 42 acres of required mitigation lands (see Table 10). Currently, wildlife species are free to move throughout all of these habitat types and would continue to use the designated semi-desert chaparral and Peninsular juniper woodland and scrub as habitat for breeding, nesting, cover, and foraging.

Table 10 includes the impacts to vegetation communities and non-natural land covers and mitigation acreage (if required). Semi-desert chaparral and Peninsular juniper woodland and scrub have a combined mitigation excess of 38.9 acres, and Sonoran mixed woody scrub and upper Sonoran subshrub scrub have a combined mitigation deficit of 6.2 acres. Wildlife species that are expected to move throughout both impacted and open space habitats include species described in Table 6. These species include Blainville's horned lizard, Belding's orange-throated whiptail, northern red-diamond rattlesnake, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and San Diego desert woodrat. Avian species that may forage in these areas include Cooper's hawk, prairie falcon, golden eagle, Bell's sparrow, turkey vulture, and loggerhead shrike. Avian species that may nest in these areas include Bell's sparrow and loggerhead shrike. Modeled habitat, or similar vegetation communities and soils, for special-

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status plants occur throughout the open space areas. Because wildlife species are expected to use all of the on-site open space areas, and there is suitable habitat for plants within the open space areas, these lands would have functional equivalence, and no additional mitigation would be necessary. Additionally, the open space areas provide higher-quality habitat compared to the impacted areas, and would result in conserved lands at a mitigation ratio greater than 1:1.

**Table 10**  
**Summary of Impacts, Mitigation, and Open Space for**  
**Vegetation Communities and Jurisdictional Areas**

| Habitat Types/Vegetation Communities                    | Existing Acreage <sup>1</sup> | Total Impacts (Acres) <sup>2</sup> | Mitigation Ratio | Mitigation Required (Acres) | Open Space (Acres) | Mitigation Excess (Deficit)           |
|---------------------------------------------------------|-------------------------------|------------------------------------|------------------|-----------------------------|--------------------|---------------------------------------|
| <i>Non-Jurisdictional Vegetation Communities</i>        |                               |                                    |                  |                             |                    |                                       |
| <i>Upland Scrub and Chaparral</i>                       |                               |                                    |                  |                             |                    |                                       |
| Semi-desert chaparral <sup>3</sup>                      | 179.5                         | 74.9                               | 1:1              | 74.9                        | 101.2              | 26.3                                  |
| Sonoran mixed woody scrub <sup>3</sup>                  | 3.2                           | 3.2                                | 1:1              | 3.2                         | —                  | (3.2)<br>Mitigated through excess SDC |
| Upper Sonoran subshrub scrub <sup>3</sup>               | 3.6                           | 3.0                                | 1:1              | 3.0                         | —                  | (3.0)<br>Mitigated through excess SDC |
| <i>Subtotal</i>                                         | <i>186.2</i>                  | <i>81.1</i>                        | <i>—</i>         | <i>81.1</i>                 | <i>101.2</i>       | <i>26.3</i>                           |
| <i>Woodland</i>                                         |                               |                                    |                  |                             |                    |                                       |
| Peninsular juniper woodland and scrub <sup>3</sup>      | 101.5                         | 22.2                               | 3:1              | 66.6                        | 79.2               | 12.6                                  |
| <i>Subtotal</i>                                         | <i>101.5</i>                  | <i>22.2</i>                        | <i>—</i>         | <i>66.6</i>                 | <i>79.2</i>        | <i>12.6</i>                           |
| <i>Non-Natural Land Covers</i>                          |                               |                                    |                  |                             |                    |                                       |
| Disturbed land                                          | 13.2                          | 8.3                                | N/A              | —                           | 3.1                | 3.1                                   |
| <i>Subtotal</i>                                         | <i>13.2</i>                   | <i>8.3</i>                         | <i>—</i>         | <i>—</i>                    | <i>3.1</i>         | <i>3.1</i>                            |
| <i>Jurisdictional Vegetation Communities and Waters</i> |                               |                                    |                  |                             |                    |                                       |
| Non-wetland ephemeral waters <sup>4</sup>               | 3.3                           | 0.21                               | 1:1              | 0.21                        | 3.14               | N/A                                   |
| <i>Subtotal</i>                                         | <i>3.3</i>                    | <i>0.21</i>                        | <i>—</i>         | <i>0.21</i>                 | <i>3.14</i>        | <i>N/A</i>                            |
| <b>Total</b>                                            | <b>300.9</b>                  | <b>111.5</b>                       | <b>—</b>         | <b>147.9</b>                | <b>183.5</b>       | <b>42.0</b>                           |

<sup>1</sup> Includes acreage from the gen-tie line.

<sup>2</sup> Includes acreage from the fuel modification zones and gen-tie line.

<sup>3</sup> Considered special status by the County (County of San Diego 2010a).

<sup>4</sup> These features are overlays to the vegetation community layer and are not counted toward the total acreage.

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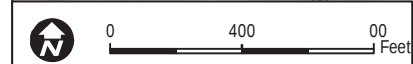
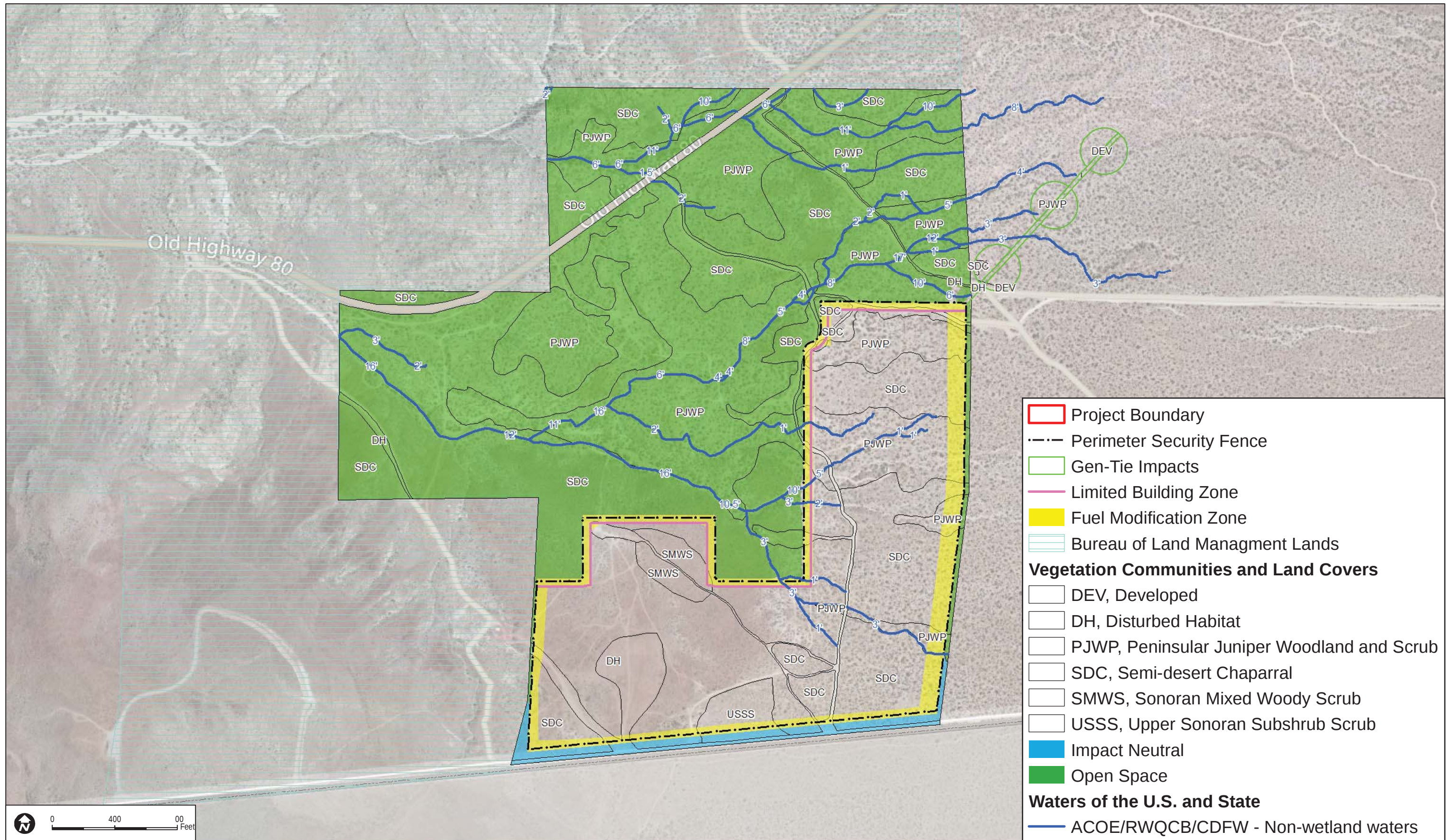
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### 4.2.2 Project Effects Relevant to Guideline 4.2.B

No wetlands under the jurisdiction of ACOE, RWQCB, CDFW or County were identified within the solar site or gen-tie site and will not be further addressed.

The Proposed Project was designed to avoid non-wetland waters to the maximum extent practicable. There will be direct impacts to 0.21 acre (4,261 linear feet) of non-wetland ephemeral waters under the jurisdiction of ACOE/RWQCB/CDFW. Impacts to 0.21 acre of non-wetland waters would be significant, absent mitigation (**Impact V-3**), and would be mitigated to a level less than significant through implementation of mitigation measure **M-BI-4** (habitat preservation and management), which conserves 180.4 acres of habitat in open space, including 3.14 acres of non-wetland waters that help maintain the natural flow of water across the landscape and downstream to Carrizo Creek; and **M-BI-15** (require permits from ACOE, RWQCB, and CDFW), which requires the Applicant to obtain permits from ACOE, RWQCB, and CDFW, as required under federal and state law, and to demonstrate avoidance and minimization of impacts to jurisdictional resources to the extent feasible.

Short-term, construction-related, or temporary indirect impacts to jurisdictional non-wetlands waters would primarily result from construction activities. Indirect impacts could include the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides). Potential temporary indirect impacts to jurisdictional waters on site would be significant, absent mitigation (**Impact V-4**). However, these short-term indirect impacts will be mitigated to a level below significant through implementation of mitigation measures **M-BI-1** (biological monitoring), which prevents inadvertent disturbance to areas outside of the limits of grading, including jurisdictional resources; **M-BI-2** (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits), which avoids indirect impacts to jurisdictional resources; and **M-BI-3** (preparation of a biological monitoring report), which ensures the required biological monitoring has been conducted to prevent inadvertent impacts to jurisdictional resources.



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Potential long-term indirect impacts to jurisdictional non-wetlands waterways would primarily result from impacts related to operation and maintenance activities, including chemical pollutants, altered hydrology, non-native invasive species, increased human activity, and alteration of the natural fire regime. These indirect impacts would be significant, absent mitigation (**Impact V-5**), absent mitigation. Long-term indirect impacts to jurisdictional non-wetlands waterways would be mitigated to a level below significant through implementation of mitigation measure **M-BI-4** (habitat preservation and management), which conserves 180.4 acres, including 3.14 acres of non-wetland waters, in open space, and in addition to the Project design, would reduce potential impacts to hydrology by maintaining the natural flow of water across the landscape and downstream to Carrizo Creek; **M-BI-6** (restrictions on operation and maintenance personnel activity), which prohibits operation and maintenance personnel from traveling outside the Project footprint; **M-BI-9** (implementation of a Fugitive Dust Control Plan), which minimizes traffic speeds and requires the road leading to the facility entrance be paved to reduce dust; **M-BI-11** (implementation of a Fire Protection Plan), which reduces potential loss of suitable habitat from increased fire risk through managed fuel clearing and maintenance; **M-BI-12** (regulated herbicide application), which minimizes potential herbicide effects to plants through compliance with federal, state, and local laws, as well as requires weed control to minimize the spread of non-native species that can compete with natives for resources and alter habitat; and **M-BI-15** (require permits from ACOE, RWQCB, and CDFW), which requires the Applicant to obtain permits from ACOE, RWQCB, and CDFW, as required under federal and state law, and to demonstrate avoidance and minimization of impacts to jurisdictional resources to the extent feasible.

### 4.2.3 Project Effects Relevant to Guideline 4.2.C

The Proposed Project site does not support areas of potentially groundwater-dependent vegetation. During construction activities, an estimated water demand of 58.1 acre-feet over a period of approximately 5 months is anticipated. Water used for construction activities would be supplied via water trucked in from a local water source. No on-site groundwater will be used for construction and operational needs. Construction water demands would be met by the Jacumba Community Services District (JCSD) and/or the Padre Dam Municipal Water District. Since the operational water demand of the Proposed Project is anticipated to be fairly low (the facility would not be manned), because the cost of developing on-site water resources would be high, and because the yield of on-site wells is uncertain, the Proposed Project is anticipated to import all of its water needs from off-site sources. All operational water needs are anticipated to be met by the JCSD at Wells 4, 6, and 8. Wells 4 and 6 are approximately 500 feet south of riparian or bottomland vegetation communities, and Well 8 is approximately 350 feet south of riparian or bottomland vegetation communities. A groundwater investigation report prepared for the

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Proposed Project demonstrated that JCSD Well 6 can provide up to 100,000 gallons per day over 192 days, for a total of 59 acre-feet, without causing significant impacts to groundwater storage, well interference, or groundwater-dependent habitat (Appendices 3.1.4-3 and 3.1.4-4 of the Jacumba Solar Energy Project EIR).

Operational water demands are anticipated to be greatest for PV panel washing and application of a non-toxic soil binder to stabilize site soil. Total operational water demands are estimated at 3.4 acre-feet per year. Panel washing for the Proposed Project would use 2.5 acre-feet per year. Water used for application of soil binder (if required) would be 0.9 acre-feet per year. This information is based on the Project Description for Jacumba Solar Energy Project (Dudek 2014b). Impacts to groundwater-dependent vegetation are anticipated to be less than significant.

### 4.2.4 Project Effects Relevant to Guideline 4.2.D

Short-term, indirect impacts to special-status upland vegetation communities as a result of the Proposed Project are described in Section 2.2.2.1 and include short-term; construction-related; or temporary, indirect impacts, and include generation of fugitive dust, changes in hydrology resulting from construction, and the introduction of chemical pollutants (including herbicides). Short-term, indirect impacts to special-status upland vegetation communities would be significant, absent mitigation (**Impact V-6**). Short-term, indirect impacts to special-status upland vegetation communities will be mitigated to a level below significance through implementation of mitigation measures **M-BI-1** (biological monitoring), which prevents inadvertent disturbance to areas outside of the limits of grading, including special-status species vegetation communities; **M-BI-2** (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits), which prohibits planting of invasive plants that can compete with native plants for resources; **M-BI-3** (preparation of a biological monitoring report), which ensures the required biological monitoring has been conducted to prevent inadvertent impacts to special-status vegetation communities; and **M-BI-9** (implementation of a Fugitive Dust Control Plan), which prevents construction-related impacts to the viability of vegetation communities by requiring soil stabilizers, watering, and other dust-control methods during construction activities.

The Proposed Project would avoid impacts to vegetation communities to the maximum extent practicable as previously described, with conservation of approximately 60% of these habitats within the on-site open space (180.4 acres).

Mitigation for short-term direct impacts to special-status vegetation communities include **M-BI-1** (biological monitoring), **M-BI-2** (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits), **M-BI-3** (preparation of a

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biological monitoring report), and **M-BI-9** (implementation of a Fugitive Dust Control Plan), which are described in Section 3.4.

In accordance with the County Guidelines (County of San Diego 2010b), impacts to 103.2 acres of semi-desert chaparral, Sonoran mixed woody scrub, upper Sonoran subshrub scrub, and Peninsular juniper woodland and scrub will require mitigation. No mitigation will be required for direct impacts to developed or disturbed land. Mitigation measure **M-BI-4**, described in Section 3.4, will mitigate for these impacts to this vegetation community through on-site or off-site compensatory mitigation.

Permanent direct impacts to 0.15 acre (3,536 linear feet) of impacts to ephemeral unvegetated stream channel under the jurisdiction of ACOE, RWQCB, and CDFW will be mitigated to a less than significant level through implementation of mitigation measures **M-BI-4** (habitat preservation and management), described in Section 3.4, and **M-BI-15**.

**M-BI-15** To comply with the state and federal regulations for impacts to waters of the United States and state, the following agency permits are required, or verification that they are not required shall be obtained.

1. The following permit and agreement shall be obtained, or provide evidence from the respective resource agency satisfactory to the director of Planning and Development Services (PDS) that such an agreement or permit is not required:
  - a. A Clean Water Act, Section 401/404 permit issued by the California RWQCB and the ACOE for all Project-related disturbances of waters of the United States and/or associated wetlands.
  - b. A Section 1602 Streambed Alteration Agreement issued by the CDFW for all Project-related disturbances of any streambed.
2. **Documentation:** The Applicant shall consult each agency to determine if a permit or agreement is required. Upon completion of the agency review of this Project, the Applicant shall provide a copy of the permit(s)/agreement(s), or evidence from each agency that such an agreement or permit is not required to the PDS for compliance.
3. **Timing:** Prior to approval of any grading and/or improvement plans and issuance of any Grading or Construction Permits.

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4. **Monitoring:** The PDS shall review the permits/agreement for compliance with this condition. Copies of these permits should be transmitted to the Department of Public Works (DPW) for implementation on the grading plans.

Mitigation for short-term and long-term indirect impacts to special-status vegetation communities and jurisdictional waters include the implementation of mitigation measures **M-BI-1** through **M-BI-4** and **M-BI-11** through **M-BI-14**, which are described in Section 3.4, and **M-BI-14**.

### 4.3 Conclusions

- Impact BI-V-1** The significant short-term direct impacts to special-status upland vegetation communities and jurisdictional wetlands and waters will be reduced to a level that is less than significant through implementation of mitigation measures **M-BI-1**, **M-BI-2**, and **M-BI-3**, which require biological monitoring, restrictions on plantings, equipment staging and storage, and construction vehicle speed limits, preparation of a biological monitoring report.
- Impact BI-V-2** The significant permanent direct impact to 103.2 acres of semi-desert chaparral, Sonoran mixed woody scrub, upper Sonoran subshrub scrub, and Peninsular juniper woodland and scrub will be reduced to a level that is less than significant through implementation of mitigation measure **M-BI-4**, which provides for 180.4 acres of habitat conservation of equivalent function and value.
- Impact BI-V-3** The significant permanent direct impact to 0.21 acre of non-wetland waters will be reduced to a level that is less than significant through implementation of mitigation measures **M-BI-4** and **M-BI-14**.
- Impact BI-V-4** The significant short-term indirect impact to non-wetland waters will be reduced to a level that is less than significant through implementation of mitigation measures **M-BI-1** through **M-BI-3**.
- Impact BI-V-5** The significant long-term indirect impacts to non-wetland waters will be reduced to a level that is less than significant through implementation of mitigation measures **M-BI-4**, **M-BI-6**, **M-BI-9**, **M-BI-11**, **M-BI-12**, and **M-BI-15**.
- Impact BI-V-6** The significant short-term indirect impacts to special-status upland vegetation communities and jurisdictional non-wetland waters will be reduced to a level

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that is less than significant through implementation of mitigation measures **M-BI-1**, **M-BI-2**, **M-BI-3**, and **M-BI-9**, which require biological monitoring, restrictions on plantings, equipment staging and storage, and construction vehicle speed limits, preparation of a biological monitoring report, and implementation of a Fugitive Dust Control Plan.

**Impact BI-V-7** The significant long-term indirect impacts to special-status upland vegetation communities and jurisdictional non-wetland waters will be reduced to a level that is less than significant through implementation of mitigation measures **M-BI-4**, **M-BI-6**, **M-BI-9**, **M-BI-10**, **M-BI-11**, and **M-BI-12**, which provide for 180.4 acres of habitat conservation of equivalent function and value, requires restrictions on operation and maintenance personnel activity, implements a Fugitive Dust Control Plan, requires biological review of landscape plans, implements a Fire Protection Plan, and regulates weed control treatments.

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### **5 JURISDICTIONAL WETLANDS AND WATERWAYS**

#### **5.1 Guidelines for the Determination of Significance**

The County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guideline for the determination of significance comes directly from the County's guidelines (County of San Diego 2010a) and refers only to federally protected wetlands.

**Guideline 4.3** The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

The significance of impacts shall be determined under Guideline 4.2B, C, and E, if federally protected wetlands will be affected.

#### **5.2 Analysis of Project Effects**

##### **Project Effects Relevant to Guideline 4.3**

No wetlands under the jurisdiction of ACOE were identified within the solar site or gen-tie site and therefore this Guideline will not be further addressed. See Section 4.2.2.

#### **5.3 Cumulative Impact Analysis**

Cumulative impacts are not assessed in this document; they are discussed thoroughly in Section 2.2.4 of the Proposed Project's EIR.

#### **5.4 Mitigation Measures**

Since no wetlands under the jurisdiction of ACOE were identified within the solar site or gen-tie site, no mitigation is proposed.

#### **5.5 Conclusions**

Since no wetlands under the jurisdiction of ACOE were identified within the Proposed Project site, no impacts would occur.

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### 6 WILDLIFE MOVEMENT AND NURSERY SITES

#### 6.1 Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a).

**Guideline 4.4** The project would interfere substantially with the movement of a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- A. The project would impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.
- B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage. For example, if the project proposes roads that cross corridors, fencing that channels wildlife to underpasses located away from interchanges will be required to provide connectivity. Wildlife underpasses shall have dimensions (length, width, height) suitable for passage by the affected species based on a site-specific analysis of wildlife movement. Another example is increased traffic on an existing road that would result in significant road-kill or interference with an existing wildlife corridor/linkage.
- C. The project would create artificial wildlife corridors that do not follow natural movement patterns; for example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along the face of a steep slope instead of through the valley or along the ridgeline.
- D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels likely to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.
- E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width,

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removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path. The adequacy of the width shall be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor should be well-vegetated and adequately buffered from adjacent development. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages.

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

### **6.2 Analysis of Project Effects**

When analyzing the importance of this area from a wildlife corridor perspective, Dudek reviewed Las Californias Binational Conservation Initiative (Initiative) (Conservation Biology Institute 2004) and other documents. The goal of the Initiative is to provide for connectivity through the binational area between San Diego (roughly Laguna Mountains), United States, south into Ensenada, northern Baja California (roughly Sierra Juarez), Mexico. The area is already compromised by dense development, human population, and infrastructure, including major highways and the International border fence. Breaks in the International border fence occur both west and east of the Proposed Project (Figure 7).

Wildlife movement was analyzed using the Initiative as a tool. Impacts and contributions were reviewed as they related to the Initiative. The general area was identified as having Category B management objectives (requires land uses and management that maintain habitat integrity and allow natural ecological processes to continue). Further, the general area is identified as a Critical Opportunity Area, supported by abundant federal lands (USFS and BLM lands) on the U.S. side. The Project was designed to be condensed, with as little edge as possible and to nestle against the International border fence. Further, it was designed to provide connective open space adjacent to existing BLM lands. This provides for enhanced connectivity between the gaps in the International border fence and protected or managed lands within the United States. Management and protections within Mexico are not guaranteed.

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### 6.2.1 Project Effects Relevant to Guideline 4.4.A

Short-term, construction-related, or temporary direct impacts to potential foraging and breeding habitat for species that use the Project area (e.g., special-status birds) would primarily result from construction activities. Clearing, trampling, or grading of foraging and breeding habitat outside designated construction zones could occur in the absence of avoidance and mitigation measures. Potential temporary direct impacts to foraging and breeding habitat on site would be significant, absent mitigation (**Impact BI-WM-1**). However, these short-term, direct impacts will be mitigated to a level below significance through implementation of mitigation measures **M-BI-1** (biological monitoring), which prevents inadvertent disturbance to areas outside of the limits of grading; **M-BI-2** (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits), which requires a variety of BMPs to protect open space habitat and limits vehicle speeds to reduce potential collisions with wildlife species; and **M-BI-3** (preparation of a biological monitoring report), which ensures the required biological monitoring has been conducted to prevent inadvertent impacts to habitat areas.

Permanent direct impacts to approximately 111.5 acres of potential foraging and breeding habitat for species that use the Project area (e.g., special-status birds) would occur as a result of the Proposed Project. Permanent direct impacts to foraging and breeding habitat would be significant, absent mitigation (**Impact BI-WM-2**). This impact will be mitigated through mitigation measure **M-BI-4** (habitat preservation and management), which includes preservation and management of more than a 1:1 mitigation ratio of suitable habitat. Table 10 summarizes the impacts and required mitigation for habitat types in the Project area.

Short-term and long-term indirect impacts to wildlife access to foraging and breeding habitat for small and medium-sized animals would be significant, absent mitigation (**Impact BI-WM-3**), as discussed in detail in Section 2.6. This impact would be mitigated through mitigation measure **M-BI-4** (habitat preservation and management), which would conserve approximately 180.4 acres of equivalent function and value. Additionally, mitigation measure **M-N-1** (see Noise, Section 2.5.5, of the EIR) requires that Proposed Project-generated noise from the PV inverters, HVAC systems, and power inverters associated with the energy storage facilities comply with the County's Noise Ordinance, which would reduce noise impacts so wildlife movement in adjacent areas is not interrupted.

### 6.2.2 Project Effects Relevant to Guideline 4.4.B

As described in Dudek (see Appendix I), the Open Space Preserve is undeveloped and on-site elevation ranges from approximately 3,010 to 3,160 feet amsl. The site is located 3 miles east of the community of Jacumba Hot Springs, south of Old Highway 80 (the highway traverses

## Biological Resources Report for the Jacumba Solar Energy Project

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the northern portion of the site), and north of the international border. The site is generally flat except for a low hill near its southwest corner, and several unvegetated channels generally flow to the northwest across the site. The Project will include an interconnection to SDG&E's ECO Substation located approximately ~~1,400~~1,500 feet to the east of the Project site (see Figure 7). Land use on site, and in the surrounding areas, consists of open space in both private and federal lands holdings (Figure 7). BLM lands are adjacent to the Project limits and a 500 kV substation is currently under construction to the east. A portion of study area borders Mexico and is separated by the International border fence. There are breaks in the fence coverage approximately 1,400 feet west of the Project site within BLM lands and approximately 3,000 feet to the east that allow for north-south wildlife movement. The border fence itself is permeable for smaller species, including reptiles, invertebrates, and small mammals such as ground squirrels and rabbits. However, it is unlikely that it provides many opportunities for larger predators like bobcats or coyotes to move through. Additionally, the wide U.S. Customs and Border Protection road adjacent to the fence is heavily maintained and represents a poor habitat quality zone for smaller wildlife, making them susceptible to exposure and predation. The Project site is generally within the Peninsular Range in a transitional area between the coast and the desert. It is in a dry climate with average temperatures near the community of Jacumba ranging from approximately 34°F to 94°F. This community generally receives an average rainfall of less than 15 inches per year (WRCC 2014).

The Project site would be fenced with barbed wire. Fencing would be 9 feet in height consisting of an 8-foot-high chain-link perimeter fence with 1 foot of three strands of barbed wire along the top with a 4-inch maximum clearance from the ground surface. The fence would be constructed with anti-climbing material(s) such as extra small link size for the fence mesh. Fencing would still allow small reptiles, amphibians, and mammals to pass through, but would not provide movement for larger species. Although the fencing would limit the ability of particularly large wildlife to access and traverse the solar site, the adjacent contiguous landscape is proposed as Open Space Preserve. Although wildlife movement would be constrained by the fencing surrounding the Project site, the Project site is fairly uniform in topography and resources. Therefore, the Project site is unlikely to serve as a local or regional wildlife corridor, since, as described in Section 1.4.8, wildlife corridors are defined as areas that connect suitable wildlife habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. For example, natural features, such as canyon drainages, ridgelines, or areas with vegetation cover, provide corridors for wildlife travel. A local example of a corridor would be where the breaks in the border fence occur. Those areas represent a confined area where wildlife are required to travel through if they choose to move north-south across the border area.

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The Proposed Project vicinity includes undeveloped landscapes and a fence at the border of Mexico to the south that is generally impermeable to large wildlife, but allows smaller wildlife species to pass through. Aside from the fence at the border, there are few factors that limit the ability of wildlife to access and traverse the site. The existing conditions are that the Project site is not likely to be part of a regional corridor or linkage for large mammals due to the lack of constrained topography surrounding the Project site that would constrain wildlife to traverse through the Project site. In addition, the International border fence bordering the Project site is currently impermeable to larger wildlife, such that movement of larger wildlife between the United States and Mexico only occurs along breaks in the border fence east and west of the Proposed Project area (as described in Section 1.4.8 and shown on Figure 7); smaller wildlife species such as reptiles, invertebrates, birds, and smaller mammals can still travel through the border fence. In addition, the Project is unlikely to serve as a local or regional wildlife corridor, since wildlife is not constrained to travel only through the Project site. Wildlife is able to traverse lands in an east–west manner across the northern portions of the site, using all topography, to gain access between the Jacumba Mountains to the east and the Airport Mesa area to the west. The open space design of the Project complements the adjoining BLM lands and allows for continued and permanent use of those lands for connectivity purposes. Therefore, development of the site and installation of the new 9-foot-tall fencing with barbed wire around the perimeter of the property would not substantially interfere with connectivity between blocks of habitat, or potentially block or substantially interfere with a local or regional wildlife corridor or linkage, and impacts for large mammals would not be significant.

Smaller wildlife species (e.g., lizards and small mammals) will still be able to access the site through openings in the fence; however, vegetation within the solar site would be maintained at a maximum height of 4-inches above ground, thereby removing suitable on-site habitat. Smaller wildlife species would not be able to navigate through the site to access habitat on the far side since the size of the site would be insurmountable for small wildlife. Therefore, impacts to movement of small and mid-sized wildlife would be significant, absent mitigation (**Impact BI-WM-4**). This impact will be mitigated through **M-BI-4** (habitat preservation and management), which will conserve approximately 180.4 acres of equivalent function and value.

Although the Proposed Project will remove habitat suitable for wildlife it is not expected to impact an existing wildlife corridor or linkage (of either regional or local scale) and would not be considered significant.

As described in Section 2.4.2.2, the utility poles associated with the gen-tie alignment would provide perches from which avian species may forage, thereby increasing the potential risk of fatality associated with collisions and electrocutions. Therefore, impacts resulting from collision and electrocution would be significant, absent mitigation (**Impact BI-WM-5**). This impact

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would be mitigated through **M-BI-14** (implement recommendations by the Avian Power Line Interaction Committee), which requires all transmission towers and lines to implement measures that protect raptors and other birds from electrocution. As discussed in Section 2.4.2.2, glare and pseudo-lake effect were deemed to be a low risk due to a number of factors, including array design, solar unit design, and site location. In addition, although there have been reported avian fatalities at some of the solar facilities in the desert, it has only been hypothesized that the facilities appear as a water body to migrating birds; there have been no empirical studies conducted on the effects of PV solar installations on birds. Additionally, the Jacumba Solar Energy Project is substantially smaller and is located in a less likely flight path or migratory corridor than the solar projects that are reporting avian fatalities due to its location in the mountains away from the coast or Imperial Valley and not being situated between large water bodies. Nevertheless, mitigation as described under **M-BI-16** (implement a Worker Response Reporting System) would be implemented to mitigate potential collisions and electrocutions. **M-BI-16** will provide a means to collect information on incidental bird or bat species if found within the Project area.

### 6.2.3 Project Effects Relevant to Guideline 4.4.C

As described above, the Proposed Project is not considered to be a significant local or regional wildlife corridor. In addition, the on-site preservation of the Open Space Preserve would consist of a single large block of habitat and the Proposed Project would not create any artificial wildlife corridors and this impact would be less than significant.

### 6.2.4 Project Effects Relevant to Guideline 4.4.D

Minimal permanent lighting is associated with the Proposed Project. These areas include security lighting designed to minimize light pollution and preserve dark skies, while enhancing safety, security, and functionality. There would be short-term, construction-related noise as described in Section 2.6.2. Long-term noise associated with routine maintenance would not be expected to impact wildlife movement because these activities will typically occur on an as-needed basis and be within the Project footprint. The potential noise and lighting impacts as a result of the Proposed Project would be less than significant.

### 6.2.5 Project Effects Relevant to Guideline 4.4.E

The Project does not maintain an adequate width to be considered an existing wildlife corridor or linkage. Approximately 111.5 acres of the total 304 acres of Project area will be impacted by the Proposed Project. Although the Project area is not considered a local or regional wildlife corridor, it is considered a wildlife core area, with wildlife using the area. Small wildlife species

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(e.g., lizards and small mammals) will be able to access the Project area through openings in the fence; however, loss of habitat and soil compaction, combined with soil binders, will reduce the abundance of small wildlife using the Project area and the value of habitat on site to wildlife. The site would not provide good habitat for small species, and will likely preclude movement (**Impact BI-WM-4**; see above).

Larger wildlife are similarly expected to use the area frequently. Although the Proposed Project will be fenced (thereby preventing movement of large wildlife through the site), a single contiguous block of habitat will be preserved as Open Space Preserve, thereby facilitating movements of large wildlife through the area. The open space will be connected to adjacent BLM lands, thus adding to landscape-scale functional connectivity across disparate federally managed lands and internationally via direct access to the International border fence openings. The International border fence is permeable to small wildlife and birds, but not to large wildlife. Large wildlife movement across the border is facilitated by openings in the border fence near the Project site (Figure 7). These openings in the fence are located approximately 1,400 feet west of the Project site within BLM lands and approximately 3,000 feet to the east, and allow for north-south wildlife movement. Further, through design of the on-site Open Space Preserve (**M-BI-4**), it occurs in one large block in the north half of the site. This is connected to adjacent BLM lands, thus adding to landscape-scale functional connectivity across disparate federally managed lands, and internationally via direct access to the International border fence openings.

There is a potential for birds to collide with the gen-tie during migration, but that risk was assessed to be low due to the position of the gen-tie. As discussed in Section 2.4.2.2, glare and pseudo-lake effect were deemed to be a low risk due to a number of factors, including array design, solar unit design, and site location. Although the Proposed Project would remove habitat suitable for wildlife it is not expected to impact an existing wildlife corridor or linkage (of either regional or local scale) and would not be considered significant. As described in Section 2.4.2.2, the utility poles associated with the gen-tie alignment would provide perches from which avian species may forage, thereby increasing the potential risk of fatality associated with collisions and electrocutions and resulting in a potentially significant impact (**Impact WM-5**). This impact would be mitigated through **M-BI-14** (implement recommendations by the Avian Power Line Interaction Committee), which requires all transmission towers and lines to implement measures that protect raptors and other birds from electrocution.

### 6.2.6 Project Effects Relevant to Guideline 4.4.F

The fencing between the border of Mexico and the United States already creates a visual and structural barrier to north and south wildlife movement in the Project area. The Proposed Project would be situated adjacent to the border fencing, and although visual continuity within the

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Project area could be exacerbated by the addition of solar panels and fencing, wildlife can likely use a variety of local wildlife corridors outside of the Project area to move east, west, and north of the Project.

While focused wildlife corridor studies have not been completed within the vicinity, based on knowledge of the area, probable key wildlife species, and typical wildlife movement patterns the following discussion applies. Likely species of focus in the Project site vicinity include mule deer, coyote, mountain lion, and bobcat. Avian species use the area during migrations, but those movements typically are oriented in a north-south direction, are broad-fronted, and are not focused on this site. Potential regional wildlife corridors probably connect between the Laguna Mountains to the west and north, and to the east, the Anza-Borrego Desert and the eastern slope of the Peninsular Range. However, connections to the east likely occur north of the site and possibly along I-8, which provides the most direct and obvious potential corridor route between the Proposed Project and habitats east of the Peninsular Range; this is particularly true in the “I-8 Island” area, which is a known lambing area for bighorn sheep, provides undercrossings, and is linked to similar connections within Mexico along Highway 2. Much of this area is large, core blocks of habitat through which wildlife are free to move with minimal constraint. In addition, large areas of undeveloped lands surrounding the Project area provide for local wildlife movement. The site does not exist between lakes/ponds, loafing spots, foraging areas, or nesting sites that might entice local movement of birds or larger wildlife, so it is not considered to be an important local wildlife corridor for avian species; therefore, impacts would be less than significant.

### 6.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they are discussed thoroughly in Section 2.2.4 of the Proposed Project’s EIR.

### 6.4 Mitigation Measures

Mitigation for short-term, direct impacts to potential foraging and breeding habitat includes mitigation measures **M-BI-1** (biological monitoring), which prevents inadvertent disturbance to areas outside of the limits of grading; **M-BI-2** (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits), which requires a variety of BMPs to protect open space habitat and limits vehicle speeds to reduce potential collisions with wildlife species; and **M-BI-3** (preparation of a biological monitoring report), which ensures the required biological monitoring has been conducted to prevent inadvertent impacts to habitat areas, which are described in Section 3.4.

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Mitigation for long-term direct, short and long-term indirect, impacts to potential foraging and breeding habitat for wildlife species includes mitigation measures **M-BI-4** (habitat preservation and management), which includes preservation and management of more than a 1:1 mitigation ratio of suitable habitat; and **M-BI-14** (implement recommendations by the Avian Power Line Interaction Committee), which requires all transmission towers and lines to implement measures that protect raptors and other birds from electrocution, which are described in Section 3.4.

To address concerns pertaining to avian collisions, **M-BI-16** is provided:

**M-BI-16** To address avian concerns pertaining to collisions, the project ~~shall~~will conduct the following avian monitoring during construction and operations:

1. Implement a Worker Response Reporting System (WRRS). A WRRS will provide a means of recording and collecting information on incidental bird and bat species found dead or injured within the Project area by site personnel. The WRRS will be used by site personnel who discover bird and bat carcasses during construction and routine maintenance activities. Site personnel will be provided a set of standardized instructions to follow in response to wildlife incidents in the Project.
2. In accordance with the WRRS, d~~During~~ construction, site personnel will notify the Project Biologist to collect the following data on the incidentally detected avian wildlife: species, date, time, location (e.g., nearest Project structure), and how the animal died, if known. Results shall be reported to CDFW and PDS on a quarterly basis unless listed species are involved. During operations, site personnel will collect the same data, take photographs, and notify the Project's environmental manager, who will then notify CDFW and PDS on a quarterly basis unless listed species are involved. In the event of an injury, CDFW will be contacted for instruction on how to handle the situation. Workers will be trained on the WRRS during the Worker Environmental Awareness Program. The WRRS shall be used for the life of the Project. To accommodate these requirements, a Project Biologist shall be on retainer throughout the construction period, and one should be available during the life of the Project to assist in avian ~~identification~~identifications, data collection, identification of causation of death or injury, and implementing the WRRS~~and injury cases.~~

**M-BI-17** Within one year of construction, pre-construction surveys for Quino checkerspot butterfly shall be conducted in accordance with the most up to date protocol. If

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Quino checkerspot butterfly are found, the applicant shall consult with the USFWS and CDFW to ensure there is no take of the species. If take could occur, the applicant shall complete Section 7 consultation with the USFWS and obtain an Incidental Take Permit pursuant to Fish and Game Code 2081.

### 6.5 Conclusions

**Impact BI-WM-1** The significant short-term direct impacts to potential foraging and breeding habitat will be reduced to less than significant through implementation of mitigation measures **M-BI-1**, **M-BI-2**, and **M-BI-3**, which require biological monitoring, restrictions on plantings, equipment staging and storage, and construction vehicle speed limits, preparation of a biological monitoring report.

**Impact BI-WM-2** The significant permanent, direct impact to the loss of potential foraging and breeding habitat will be reduced to less than significant through implementation of mitigation measure **M-BI-4**, which provides commensurate for on-site habitat and habitat management and conservation that has been demonstrated to contain suitable foraging and breeding habitat for these species. Avoidance of direct impacts on site for the individuals would be done during construction. These impacts have been reduced to less than significant because the on-site or off-site habitat ~~and its management~~ will provide ~~and management~~ equivalent or better function and value for these species and will be managed and monitored in perpetuity.

**Impact BI-WM-3** The significant permanent, indirect impact associated with the loss of potential foraging and breeding habitat will be reduced to less than significant through implementation of mitigation measure **M-BI-4**, which provides commensurate for on-site habitat and habitat management and conservation that has been demonstrated to contain suitable foraging and breeding habitat for these species. Additionally, mitigation measure **M-N-1** (see Section 2.5.5 of the EIR) requires that Proposed Project-generated noise from the PV inverters, HVAC systems, and power inverters associated with the energy storage facilities comply with the County's Noise Ordinance. These impacts have been reduced to less than significant because the on-site or off-site habitat and its management will provide and management equivalent or better function and value for these species and

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be managed and monitored in perpetuity, and because noise generated by Project equipment would not interfere with movement in adjacent areas.

**Impact BI-WM-4** Short-term or long-term impacts to wildlife corridors and habitat linkages for larger wildlife species would be less than significant as a result of the Proposed Project and no mitigation is proposed. The significant impact to movement of small wildlife species from loss of wildlife corridors would be reduced to a level that is less than significant through implementation of mitigation measure **M-BI-4** because this measure requires on-site habitat preservation and management of equivalent or greater function and value.

**Impact BI-WM-5** Significant impacts resulting from collision and electrocution would be mitigated to less than significant through implementation of **M-BI-14** (implement recommendations by the Avian Power Line Interaction Committee). This mitigation measure requires the implementation of measures that will protect raptors and other birds from electrocution.

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## 7 LOCAL POLICIES, ORDINANCES, AND ADOPTED PLANS

### 7.1 Guidelines for the Determination of Significance

The County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a).

**Guideline 4.5** The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

- A. For lands outside of the Multiple Species Conservation Plan (MSCP), the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5% habitat loss threshold as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.
- B. The project would preclude or prevent the preparation of the subregional Natural Communities Conservation Planning Process (NCCP). For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.
- C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the Resource Protection Ordinance (RPO).
- D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the Natural Communities Conservation Planning Process (NCCP) Guidelines.
- E. The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan (HCP), Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.
- F. For lands within the Multiple Species Conservation Program (MSCP), the project would not minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the Biological Mitigation Ordinance (BMO).

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- G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.
- H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the Biological Mitigation Ordinance (BMO).
- I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.
- J. The project would reduce the likelihood of survival and recovery of listed species in the wild.
- K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).
- L. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

### 7.2 Analysis of Project Effects

#### 7.2.1 Project Effects Relevant to Guideline 4.5.A

The Project area does not support nor would it impact coastal sage scrub vegetation.

#### 7.2.2 Project Effects Relevant to Guideline 4.5.B

The Jacumba Solar Energy Project would not preclude or prevent the preparation of the subregional NCCP because the Project has been planned in accordance with the planning principles of the MSCP and in consideration of preparation of the ECMSCP Subarea Plan. The Project design has been evaluated according to the Preliminary Conservation Objectives outlined in the Planning Agreement for ECMSCP (County of San Diego 2008). These objectives and Project applicability/compliance are listed in Table 11.

**Table 11**  
**ECMSCP Planning Agreement Conservation Objectives**

| Conservation Objective                                                                           | Applicability/Compliance                                                                                                  |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Provide for the protection of species, natural communities, and ecosystems on a landscape level. | Project, with mitigation, will provide for protection and conservation of special-status species and natural communities. |
| Preserve the diversity of plant and animal communities throughout the Planning Area.             | Not applicable                                                                                                            |

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**Table 11**  
**ECMSCP Planning Agreement Conservation Objectives**

| Conservation Objective                                                                                                                                     | Applicability/Compliance                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Protect threatened, endangered, or other special status plant and animal species, and minimizes and mitigate the take or loss of proposed Covered Species. | Project, with mitigation, will provide for protection and conservation of special-status species and natural communities. |
| Identify and designate biologically sensitive habitat areas.                                                                                               | Biological studies have been conducted for the site to determine sensitive habitat areas.                                 |
| Preserve habitat and contribute to the recovery of Covered Species.                                                                                        | Project, with mitigation, will provide for protection and conservation of special-status species and natural communities. |
| Reduce the need to list additional species.                                                                                                                | Not applicable                                                                                                            |
| Set forth species-specific goals and objectives.                                                                                                           | Not applicable                                                                                                            |
| Set forth specific habitat-based goals and objectives expressed in terms of amount, quality, and connectivity of habitat.                                  | Not applicable                                                                                                            |

### 7.2.3 Project Effects Relevant to Guideline 4.5.C

No wetlands or sensitive habitat lands under the jurisdiction of the County, as outlined in the RPO (County of San Diego 2007) were identified within the Proposed Project site. Sensitive habitat lands identified in the RPO include unique vegetation communities, land that supports endangered species, lands essential to a natural ecosystem and wildlife corridors. Therefore, no impacts will occur to RPO wetlands or sensitive habitats as a result of the Proposed Project.

### 7.2.4 Project Effects Relevant to Guideline 4.5.D

The Jacumba Solar Energy Project does not support nor would it impact coastal sage scrub vegetation; therefore, no impacts would occur.

### 7.2.5 Project Effects Relevant to Guideline 4.5.E

The Jacumba Solar Energy Project conforms to the goals and requirements as outlined in all applicable regional planning efforts; therefore, no impacts would occur.

### 7.2.6 Project Effects Relevant to Guideline 4.5.F

The Jacumba Solar Energy Project is located approximately 32 miles east of the approved South County MSCP.

Since there is no approved ECMSCP and no associated BMO, this guideline does not apply to the Jacumba Solar Energy Project and therefore no impacts would occur.

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### 7.2.7 Project Effects Relevant to Guideline 4.5.G

The Jacumba Solar Energy Project is not expected to preclude habitat connectivity as discussed in Section 6.2.2; therefore, no impacts would occur.

### 7.2.8 Project Effects Relevant to Guideline 4.5.H

Since there is no approved ECMSCP and no associated BMO, this guideline does not apply to the Jacumba Solar Energy Project; therefore, no impacts would occur.

### 7.2.9 Project Effects Relevant to Guideline 4.5.I

Narrow endemic species are evaluated under the County Guidelines for Determining Significance for Biological Resources. There are none on the Project site; therefore, no impacts would occur.

### 7.2.10 Project Effects Relevant to Guideline 4.5.J

No federally or state-listed plant or wildlife species have been observed in the Project area; therefore, no impacts would occur.

### 7.2.11 Project Effects Relevant to Guideline 4.5.K

Short-term, temporary, or construction-related impacts to migratory birds and active migratory bird nests and/or eggs protected under the Migratory Bird Treaty Act (MBTA) would be significant, absent mitigation (**Impact BI-P-1**). This impact will be mitigated through mitigation measure **M-BI-6** (preconstruction surveys for nesting birds and setbacks), which prevents direct loss of active nests and indirect disturbance to active nests.

### 7.2.12 Project Effects Relevant to Guideline 4.5.L

Impacts to 111.5 acres of suitable foraging habitat for eagles would be significant, absent mitigation (included with raptor foraging impacts, **Impact BI-W-7**). The Project, including the gen-tie site, would not have site-specific impacts on golden eagle nesting. This impact will be mitigated through mitigation measure **M-BI-4** (habitat preservation and management), which conserves 180.4 acres (60%) of suitable raptor foraging habitat through an on-site open space conservation easement. However, no take of eagles would occur from the Proposed Project.

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### 7.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they are discussed thoroughly in Section 2.2.4 of the Proposed Project's EIR.

### 7.4 Mitigation Measures

Project construction will be phased, where appropriate, to avoid work during the bird breeding season (i.e., January through August). If construction activity is to commence during the breeding season, a biological survey for nesting bird species must be conducted within the proposed impact area 72 hours prior to construction, as described in mitigation measure **M-BI-7**, which prevents direct loss of active nests and indirect disturbance to active nests. No other mitigation is proposed for impacts to local policies, ordinances, and plans because the Proposed Project remains consistent with all approved planning documents/plans.

### 7.5 Conclusions

Application of the currently established local policies, ordinances, and plans to the Proposed Project and implementation of appropriate mitigation have not resulted in any conflicts or inconsistencies. Therefore, impacts would be reduced to less than significant.

**Impact BI-P-1** The significant short-term direct impacts to active nests or the young protected by the federal MBTA would be reduced to less than significant through implementation of mitigation measure **M-BI-7**, which requires preconstruction surveys for nesting birds and setbacks for avoiding impacts to active nests.

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### **8 SUMMARY OF PROJECT IMPACTS AND MITIGATION**

#### **Habitat Types/Vegetation Communities**

Implementation of the proposed development would result in direct impacts to approximately 111.5 acres of vegetation communities and land covers (Table 4). Of these direct impacts, approximately 103.2 acres of vegetation impacts would require mitigation (Table 10) based on the County of San Diego's mitigation requirements (County of San Diego 2010b, Table 5). Required mitigation ratios range from 1:1 to 3:1. Mitigation of approximately 180.4 acres of native vegetation is required, which averages out to an approximately 1.7:1 mitigation ratio.

There would be direct impacts to potential foraging and breeding habitat for wildlife species, discussed in Section 6. No impacts to local policies, ordinances, and adopted plans are anticipated to result from implementation of the Proposed Project. Impacts associated with the MBTA are discussed in both Section 3 and Section 7.

#### **Special-Status Plant Species**

The Proposed Project would result in potential short-term and long-term direct impacts to suitable habitat for County List A and B special-status species, including Jacumba milk-vetch (CRPR 1B.2), pygmy lotus (CRPR 1B.3), Mountain Springs bush lupine (CRPR 1B.3), Parry's tetracoccus (CRPR 1B.2), southern jewelflower (CRPR 1B.3), tecate tarplant (CRPR 1B.2), sticky geraea (CRPR 2.3), slender-leaved ipomopsis (CRPR 2.3), desert beauty (CRPR 2.3), pink fairy-duster (CRPR 2.3), Parish's desert-thorn (CRPR 2.3), and Fremont barberry (CRPR 2.3). Additionally, the Proposed Project would result in potential short-term and long-term indirect impacts to suitable habitat for suitable habitat for County List A and B special-status species. A summary of the aforementioned significance criteria, references to their locations within this document, and the significance determination is provided in Table 12.

#### **Special-Status Wildlife Species**

There would be potentially significant impacts to special-status species that have been observed or have potential to occur in the Project area (see Table 12). Impacts would occur to suitable habitat and/or individual species, discussed in Chapter 3. Species-based mitigation shall be provided for Group 1 animal species. The mitigation site shall directly benefit the species (presence verified) and provide greater benefit to the species than that impacted. The mitigation shall propose measures above normal habitat mitigation and may propose occupation by an equal or greater number of Group 1 individuals. Adequate mitigation includes preservation and management of the mitigation site, construction limitations during breeding season, and measures to minimize edge effects (including biological monitoring and implementation of the Fire Protection Plan). Species-based

## Biological Resources Report for the Jacumba Solar Energy Project

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mitigation land may also satisfy the habitat/vegetation community mitigation requirements of the same Project. Therefore, on-site preservation of 180.4 acres of native habitats will provide mitigation for impacts to special-status species equal to the total acreage of impacts on the Project site and greater than the Project impacts to 103.2 acres of special-status upland vegetation communities. A summary of the aforementioned significance criteria, references to their locations within this document, and the significance determination is provided in Table 12.

### Wetlands/Jurisdictional Waters

Implementation of the proposed development would result in direct impacts to approximately 0.21 acre (4,261 linear feet) of non-wetland ephemeral waters under the jurisdiction of ACOE/RWQCB/CDFW. Impacts to 0.21 acre of non-wetland waters would be mitigated to a less than significant level through implementation of mitigation measure **M-BI-4** (habitat preservation and management), which conserves 180.4 acres of habitat in open space, including 94%, or 3.14 acres (20,205 linear feet), of non-wetland waters that help maintain the natural flow of water across the landscape and downstream to Carrizo Creek; and **M-BI-15** (require permits from ACOE, RWQCB, and CDFW), which requires the Applicant to obtain permits from ACOE, RWQCB, and CDFW, as required under federal and state law, and to demonstrate avoidance and minimization of impacts to jurisdictional resources to the extent feasible.

A summary of the aforementioned significance criteria, references to their locations within this document, and the significance determination is provided in Table 12.

### Wildlife Movement and Nursery Sites

There would be direct impacts to potential foraging and breeding habitat for wildlife species, discussed in Chapter 6. Impacts associated with the MBTA are discussed in Chapters 3 and 7.

There would be potentially significant impacts to wildlife movement through core habitat, primarily for small and medium sized wildlife. Mitigation shall be provided to directly benefit the affected species (presence verified) and provide greater benefit to the species than that impacted. Adequate mitigation includes preservation and management of the mitigation site and measures to minimize edge effects (including biological monitoring and implementation of the Fire Protection Plan). The wildlife movement and nursery sites mitigation land also satisfy the habitat/vegetation community mitigation requirements of the same Project. Therefore, on-site preservation of 180.4 acres of native habitats will provide compensatory mitigation for impacts to wildlife movement.

A summary of the aforementioned significance criteria, references to their locations within this document, and the significance determination is provided in Table 12. A summary of the mitigation measures and the guideline they relate to is provided in Table 13.

## Biological Resources Report for the Jacumba Solar Energy Project

**Table 12**  
**Summary of Significant Impacts**

| Section of Report Analysis Is Described                                                                                                                                                                                                                                                                                               | Impact Number  | Impacted Resource                                                                                                                                                                                                                                                                                                                                    | Impact Type       | Proposed Mitigation                                                                                                                                                                                                        | Level of Significance After Mitigation | Guideline Number and Letter |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|
| <b>Guideline 4.1:</b> <i>The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.</i> |                |                                                                                                                                                                                                                                                                                                                                                      |                   |                                                                                                                                                                                                                            |                                        |                             |
| 3.2.2.1/3.2.3.1                                                                                                                                                                                                                                                                                                                       | Impact BI-SP-1 | <b>Special-Status Plants</b> , County List A and B:<br>Jacumba milk-vetch<br>Pygmy lotus<br>Mountain Springs bush lupine<br>Parry's tetracoccus<br>Southern jewelflower<br>Tecate tarplant<br>Sticky geraea<br>Slender-leaved ipomopsis<br>Desert beauty<br>Pink fairy-duster<br>Parish's desert-thorn<br><br>List C (CRPR 2.3):<br>Fremont barberry | Short-term direct | M-BI-1 (biological monitoring)<br>M-BI-2 (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits)<br>M-BI-3 (preparation of a biological monitoring report) | Less than significant                  | 4.1, B/<br>4.1, C           |
| 3.2.2.1/3.2.3.1                                                                                                                                                                                                                                                                                                                       | Impact BI-SP-2 | <b>Special-Status Plants</b> , County List A and B:<br>Jacumba milk-vetch<br>Pygmy lotus<br>Mountain Springs bush lupine<br>Parry's tetracoccus<br>Southern jewelflower<br>Tecate tarplant<br>Sticky geraea                                                                                                                                          | Long-term direct  | M-BI-4 (on-site or off-site habitat preservation and management)<br>M-BI-5 (rare plant surveys and relocation of rare plants to the on-site Open Space Preserve)                                                           | Less than significant                  | 4.1, B/<br>4.1, C           |

## Biological Resources Report for the Jacumba Solar Energy Project

**Table 12**  
**Summary of Significant Impacts**

| Section of Report Analysis Is Described | Impact Number | Impacted Resource                                                                                                                                                                   | Impact Type       | Proposed Mitigation                                                                                                                                                                                                                                                                                                                                                                                                       | Level of Significance After Mitigation | Guideline Number and Letter |
|-----------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|
|                                         |               | Slender-leaved ipomopsis<br>Desert beauty<br>Pink fairy-duster<br>Parish's desert-thorn<br><br>List C (CRPR 2.3):<br>Fremont barberry                                               |                   |                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                             |
| 3.2.2.2                                 | Impact BI-W-1 | <b>Special-Status Wildlife</b> , County Group 1                                                                                                                                     | Short-term direct | M-BI-1 (biological monitoring)<br>M-BI-2 (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits)<br>M-BI-3 (preparation of a biological monitoring report)<br>M-BI-6 (restrictions on operation and maintenance personnel activity)<br>M-BI-7 (breeding season avoidance)<br>M-BI-8 (cover trenches and holes; monitoring excavated areas and soil piles) | Less than significant                  | 4.1, B                      |
| 3.2.2.2                                 | Impact BI-W-2 | <b>Special-Status Wildlife</b> , County Group 1 or CDFW Species of Special Concern<br>Impacts to active nests or young of nesting County Group 1 or CDFW Species of Special Concern | Short-term direct | M-BI-7 (preconstruction surveys for nesting birds and setbacks)                                                                                                                                                                                                                                                                                                                                                           | Less than significant                  | 4.1, B                      |

## Biological Resources Report for the Jacumba Solar Energy Project

**Table 12**  
**Summary of Significant Impacts**

| Section of Report Analysis Is Described | Impact Number  | Impacted Resource                                                                                                                                                                           | Impact Type         | Proposed Mitigation                                                                                                                                                                                                                                                | Level of Significance After Mitigation | Guideline Number and Letter |
|-----------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|
| 3.2.2.2                                 | Impact BI-W-3  | <b>Special-Status Wildlife</b> , County Group 1 or CDFW Species of Special Concern Removal of suitable habitat of County Group 1 wildlife species (see Table 6 for details).                | Long-term direct    | M-BI-4 (on-site or off-site habitat preservation and management)                                                                                                                                                                                                   | Less than significant                  | 4.1, B                      |
| 3.2.3.2                                 | Impact BI-W-4  | <b>Special-Status Wildlife</b> , County Group 2 Species (see Section 3.2.3.2 for details)                                                                                                   | Short-term direct   | M-BI-1 (biological monitoring)<br>M-BI-3 (preparation of a biological monitoring report)<br>M-BI-8 (cover trenches and holes; monitoring excavated areas and soil piles)                                                                                           | Less than significant                  | 4.1, C                      |
| 3.2.3.2                                 | Impact BI-W-5  | <b>Special-Status Wildlife</b> , County Group 2 Impacts to active nests or young of nesting County Group 1 or CDFW Species of Special Concern                                               | Short-term direct   | M-BI-7 (preconstruction surveys for nesting birds and setbacks)                                                                                                                                                                                                    | Less than significant                  | 4.1, C                      |
| 3.2.6                                   | Impact BI-W-6  | <b>Special-Status Wildlife</b> , Loss of foraging habitat for raptors                                                                                                                       | Long-term direct    | M-BI-4 (off-site habitat preservation and management)                                                                                                                                                                                                              | Less than significant                  | 4.1, F                      |
| 3.2.7/7.2.12                            | Impact BI-W-7  | <b>Loss of Core Wildlife Area, Loss of habitat</b>                                                                                                                                          | Long-term direct    | M-BI-4 (off-site habitat preservation and management)                                                                                                                                                                                                              | Less than significant                  | 4.1, G/4.5, L9-             |
| 3.2.8.1                                 | Impact BI-SP-3 | <b>Special-Status Plants</b> , County List A and B:<br>Jacumba milk-vetch<br>Pygmy lotus<br>Mountain Springs bush lupine<br>Parry's tetradleucos<br>Southern jewelflower<br>Tecate tarplant | Short-term indirect | M-BI-1 (biological monitoring)<br>M-BI-2 (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits)<br>M-BI-3 (preparation of a biological monitoring report)<br>M-BI-9 (implementation of a Fugitive | Less than significant                  | 4.1, H                      |

## Biological Resources Report for the Jacumba Solar Energy Project

**Table 12**  
**Summary of Significant Impacts**

| Section of Report Analysis Is Described | Impact Number  | Impacted Resource                                                                                                                                                                                                                                                                                                                                     | Impact Type         | Proposed Mitigation                                                                                                                                                                                                                                                                                                                            | Level of Significance After Mitigation | Guideline Number and Letter |
|-----------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|
|                                         |                | Sticky geraea<br>Slender-leaved ipomopsis<br>Desert beauty<br>Pink fairy-duster<br>Parish's desert-thorn<br><br>List C (CRPR 2.3):<br>Fremont barberry                                                                                                                                                                                                |                     | Dust Control Plan)                                                                                                                                                                                                                                                                                                                             |                                        |                             |
| 3.2.8.1                                 | Impact BI-SP-4 | <b>Special-Status Plants</b> , County List A and B:<br>Jacumba milk-vetch<br>Pygmy lotus<br>Mountain Springs bush lupine<br>Parry's tetraococcus<br>Southern jewelflower<br>Tecate tarplant<br>Sticky geraea<br>Slender-leaved ipomopsis<br>Desert beauty<br>Pink fairy-duster<br>Parish's desert-thorn<br><br>List C (CRPR 2.3):<br>Fremont barberry | Long-term indirect  | M-BI-4 (off-site habitat preservation and management)<br>M-BI-6 (restrictions on operation and maintenance personnel activity)<br>M-BI-7 (implementation of a Fugitive Dust Control Plan)<br>M-BI-10 (biological review of landscape plans)<br>M-BI-11 (implementation of a Fire Protection Plan)<br>M-BI-12 (regulated herbicide application) | Less than significant                  | 4.1, H                      |
| 3.2.8.2                                 | Impact W-8     | <b>Special-Status Wildlife Detected or Potentially Occurring (Appendix F)</b>                                                                                                                                                                                                                                                                         | Short-term indirect | M-BI-1 (biological monitoring)<br>M-BI-2 (SWPPP BMPs, including restrictions on plantings, equipment                                                                                                                                                                                                                                           | Less than significant                  | 4.1, H                      |

## Biological Resources Report for the Jacumba Solar Energy Project

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**Table 12**  
**Summary of Significant Impacts**

| Section of Report Analysis Is Described | Impact Number | Impacted Resource                                                             | Impact Type        | Proposed Mitigation                                                                                                                                                                                                                                                                                                                                                                                                                            | Level of Significance After Mitigation | Guideline Number and Letter |
|-----------------------------------------|---------------|-------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|
|                                         |               |                                                                               |                    | staging and storage, and construction vehicle speed limits)<br>M-BI-3 (preparation of a biological monitoring report)<br>M-BI-7 (preconstruction surveys for nesting birds and setbacks)<br>M-BI-9 (implementation of a Fugitive Dust Control Plan)<br>M-BI-13 (minimize night lighting)                                                                                                                                                       |                                        |                             |
| 3.2.8.2                                 | Impact BI-W-9 | <b>Special-Status Wildlife Detected or Potentially Occurring (Appendix F)</b> | Long-term indirect | M-BI-4 (off-site habitat preservation and management)<br>M-BI-6 (restrictions on operation and maintenance personnel activity)<br>M-BI-7 (implementation of a Fugitive Dust Control Plan)<br>M-BI-10 (biological review of landscape plans)<br>M-BI-11 (implementation of a Fire Protection Plan)<br>M-BI-14 (implement recommendations by the Avian Power Line Interaction Committee)<br>M-N-1 (compliance with the County's Noise Ordinance) | Less than significant                  | 4.1, H                      |

## Biological Resources Report for the Jacumba Solar Energy Project

**Table 12**  
**Summary of Significant Impacts**

| Section of Report Analysis Is Described                                                                                                                                                                                                                                                   | Impact Number | Impacted Resource                                   | Impact Type         | Proposed Mitigation                                                                                                                                                                                                        | Level of Significance After Mitigation | Guideline Number and Letter |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|
| <b>Guideline 4.2:</b> <i>The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.</i> |               |                                                     |                     |                                                                                                                                                                                                                            |                                        |                             |
| 4.2.1                                                                                                                                                                                                                                                                                     | Impact BI-V-1 | <b>Special-Status Upland Vegetation Communities</b> | Short-term direct   | M-BI-1 (biological monitoring)<br>M-BI-2 (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits)<br>M-BI-3 (preparation of a biological monitoring report) | Less than significant                  | 4.2, A                      |
| 4.2.1                                                                                                                                                                                                                                                                                     | Impact BI-V-2 | <b>Special-Status Upland Vegetation Communities</b> | Long-term direct    | M-BI-4 (off-site habitat preservation and management)                                                                                                                                                                      | Less than significant                  | 4.2, A                      |
| 4.2.2                                                                                                                                                                                                                                                                                     | Impact BI-V-3 | <b>Jurisdictional Resources</b>                     | Long-term direct    | M-BI-4 (off-site habitat preservation and management)<br>M-BI-15 (require permits from ACOE, RWQCB, and CDFW)                                                                                                              |                                        |                             |
| 4.2.2                                                                                                                                                                                                                                                                                     | Impact BI-V-4 | <b>Jurisdictional Resources</b>                     | Short-term indirect | M-BI-1 (biological monitoring)<br>M-BI-2 (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits)<br>M-BI-3 (preparation of a biological monitoring report) |                                        |                             |
| 4.2.2                                                                                                                                                                                                                                                                                     | Impact BI-V-5 | <b>Jurisdictional Resources</b>                     | Long-term indirect  | M-BI-4 (off-site habitat preservation and management)<br>M-BI-6 (restrictions on operation and maintenance personnel activity)<br>M-BI-9 (implementation of a Fugitive                                                     |                                        |                             |

## Biological Resources Report for the Jacumba Solar Energy Project

**Table 12**  
**Summary of Significant Impacts**

| Section of Report Analysis Is Described | Impact Number | Impacted Resource                                   | Impact Type         | Proposed Mitigation                                                                                                                                                                                                                                                                                                                            | Level of Significance After Mitigation | Guideline Number and Letter |
|-----------------------------------------|---------------|-----------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|
|                                         |               |                                                     |                     | Dust Control Plan)<br>M-BI-11 (implementation of a Fire Protection Plan)<br>M-BI-12 (regulated herbicide application)<br>M-BI-15 (require permits from ACOE, RWQCB, and CDFW)                                                                                                                                                                  |                                        |                             |
| 4.2.4                                   | Impact BI-V-6 | <b>Special-Status Upland Vegetation Communities</b> | Short-term indirect | M-BI-1 (biological monitoring)<br>M-BI-2 (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits)<br>M-BI-3 (preparation of a biological monitoring report)<br>M-BI-9 (implementation of a Fugitive Dust Control Plan)                                                          | Less than significant                  | 4.2, D                      |
| 4.2.4                                   | Impact BI-V-7 | <b>Special-Status Upland Vegetation Communities</b> | Long-term indirect  | M-BI-4 (off-site habitat preservation and management)<br>M-BI-6 (restrictions on operation and maintenance personnel activity)<br>M-BI-9 (implementation of a Fugitive Dust Control Plan)<br>M-BI-10 (biological review of landscape plans)<br>M-BI-11 (implementation of a Fire Protection Plan)<br>M-BI-12 (regulated herbicide application) | Less than significant                  | 4.2, D                      |

## Biological Resources Report for the Jacumba Solar Energy Project

**Table 12**  
**Summary of Significant Impacts**

| Section of Report Analysis Is Described                                                                                                                                                                                                                                                                         | Impact Number         | Impacted Resource                                      | Impact Type                       | Proposed Mitigation                                                                                                                                                                                                        | Level of Significance After Mitigation | Guideline Number and Letter |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|
| <b>Guideline 4.3:</b> <i>The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.</i> |                       |                                                        |                                   |                                                                                                                                                                                                                            |                                        |                             |
| 5.2.1                                                                                                                                                                                                                                                                                                           | No significant impact | <b>Jurisdictional Wetlands and Waterways</b>           | No significant impact             | None                                                                                                                                                                                                                       | No Significant Impact                  | 4.3                         |
| <b>Guideline 4.4:</b> <i>The project would interfere substantially with the movement of a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.</i>                                   |                       |                                                        |                                   |                                                                                                                                                                                                                            |                                        |                             |
| 6.2.1                                                                                                                                                                                                                                                                                                           | Impact BI-WM-1        | <b>Foraging and Breeding Habitat</b>                   | Short-term direct                 | M-BI-1 (biological monitoring)<br>M-BI-2 (SWPPP BMPs, including restrictions on plantings, equipment staging and storage, and construction vehicle speed limits)<br>M-BI-3 (preparation of a biological monitoring report) | Less than significant                  | 4.4, A                      |
| 6.2.1                                                                                                                                                                                                                                                                                                           | Impact BI-WM-2        | <b>Foraging and Breeding Habitat</b>                   | Long-term direct                  | M-BI-4 (off-site habitat preservation and management)                                                                                                                                                                      | Less than significant                  | 4.4, A                      |
| 6.2.1                                                                                                                                                                                                                                                                                                           | Impact BI-WM-3        | <b>Foraging and Breeding Habitat</b>                   | Short-term and long-term indirect | M-BI-4 (off-site habitat preservation and management)<br>M-N-1 (compliance with the County's Noise Ordinance)                                                                                                              | Less than significant                  | 4.4, A                      |
| 6.2.2                                                                                                                                                                                                                                                                                                           | Impact BI-WM-4        | <b>Wildlife Movement</b> , small and mid-sized animals | Long-term direct                  | M-BI-4 (off-site habitat preservation and management)                                                                                                                                                                      | Less than significant                  | 4.4, B; 4.4, E              |
| 6.2.2                                                                                                                                                                                                                                                                                                           | Impact BI-WM-5        | <b>Collision and Electrocution</b>                     | Long-term direct                  | M-BI-14 (implement recommendations by the Avian Power Line Interaction Committee)<br>M-BI-16 (implement at WRRS)                                                                                                           | Less than significant                  | 4.4, B; 4.4, E              |

## Biological Resources Report for the Jacumba Solar Energy Project

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**Table 12**  
**Summary of Significant Impacts**

| Section of Report Analysis Is Described                                                                                                                                                                                                                                                                                                                         | Impact Number | Impacted Resource                | Impact Type       | Proposed Mitigation                                             | Level of Significance After Mitigation | Guideline Number and Letter |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------|-------------------|-----------------------------------------------------------------|----------------------------------------|-----------------------------|
| <b>Guideline 4.5:</b> <i>The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state HCP.</i> |               |                                  |                   |                                                                 |                                        |                             |
| 7.2.11                                                                                                                                                                                                                                                                                                                                                          | Impact BI-P-1 | <b>Migratory Bird Treaty Act</b> | Short-term direct | M-BI-7 (preconstruction surveys for nesting birds and setbacks) | Less than significant                  | 4.5, K                      |

## Biological Resources Report for the Jacumba Solar Energy Project

**Table 13**  
**Summary of Mitigation Measures**

| Proposed Mitigation                                                                                                                                                                                                                                                     | Level of Significance After Mitigation | Guideline Number(s)                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------|
| M-BI-1: A Project Biologist shall provide biological monitoring during all grading, clearing, grubbing, trenching, and construction activities.                                                                                                                         | Less than significant                  | 4.1(B), 4.1(C), 4.1(H), 4.2(A), 4.2(B), 4.2(D), 4.4(A)                                 |
| M-BI-2: If required, the SWPPP will include BMPs to minimize impacts to special-status species, vegetation communities, and jurisdictional resources.                                                                                                                   | Less than significant                  | 4.1(B), 4.1(C), 4.1(H), 4.2(A), 4.2(B), 4.2(D), 4.4(A)                                 |
| M-BI-3: The Project Biologist shall prepare a final biological monitoring report to be submitted to the County Department of Planning and Development Services (PDS).                                                                                                   | Less than significant                  | 4.1(B), 4.1(C), 4.1(H), 4.2(A), 4.2(B), 4.2(D), 4.4(A)                                 |
| M-BI-4: The Proposed Project shall preserve approximately 183.5 acres, including 180.4 acres of native vegetation communities, in an Open Space Preserve area.                                                                                                          | Less than significant                  | 4.1(B), 4.1(C), 4.1(F), 4.1(G), 4.1(H), 4.2(A), 4.2(B), 4.2(D), 4.4(A), 4.4(E), 4.4(L) |
| M-BI-5: Prior to construction, rare plant surveys will be conducted and if found, mitigated through preservation and/or relocation to on-site Open Space.                                                                                                               | Less than significant                  | 4.1(B)                                                                                 |
| M-BI-6: Restrictions for operations and maintenance personnel to avoid and minimize impacts to special-status species, vegetation communities, and jurisdictional resources.                                                                                            | Less than significant                  | 4.1(B), 4.1(H), 4.2(B), 4.2(D)                                                         |
| M-BI-7: Preconstruction nesting bird surveys shall be conducted if construction work must occur during the avian nesting season (February 1 to August 31, and as early as January 1 for some raptors), and appropriate setbacks established until nesting is completed. | Less than significant                  | 4.1(B), 4.1(C), 4.1(H), 4.5(J)                                                         |
| M-BI-8: Excavated areas shall be covered or escape routes provided for wildlife; and soil piles and steep trenches shall be covered at night to prevent wildlife from accessing them.                                                                                   | Less than significant                  | 4.1(B), 4.1(C)                                                                         |
| M-BI-9: The Applicant shall develop a Fugitive Dust Control Plan.                                                                                                                                                                                                       | Less than significant                  | 4.1(H), 4.2(B), 4.2(D)                                                                 |
| M-BI-10: Plant palettes shall be reviewed by the Project Biologist prior to landscape installation to ensure no invasive species are included.                                                                                                                          | Less than significant                  | 4.1(H), 4.2(D)                                                                         |
| M-BI-11: To minimize fire hazards, measures provided in the Jacumba Solar Energy Project Fire Protection Plan shall be implemented.                                                                                                                                     | Less than significant                  | 4.1(H), 4.2(B), 4.2(D)                                                                 |
| M-BI-12: Weed control treatments shall be in compliance with local, state and federal laws.                                                                                                                                                                             | Less than significant                  | 4.1(H), 4.2(B), 4.2(D)                                                                 |
| M-BI-13: Construction lighting at night shall be minimized and directed away from adjacent native habitats.                                                                                                                                                             | Less than significant                  | 4.1(H)                                                                                 |
| M-BI-14: All transmission towers and lines shall implement recommendations by APLIC.                                                                                                                                                                                    | Less than significant                  | 4.1(H), 4.4(A), 4.4(E)                                                                 |
| M-BI-15: All impacts to jurisdictional resources shall comply with state and federal agencies, including ACOE, CDFW, and RWQCB.                                                                                                                                         | Less than significant                  | 4.2(B)                                                                                 |
| M-BI-16: A Worker Response Reporting System shall be implemented to address concerns of avian collisions.                                                                                                                                                               | Less than significant                  | 4.4(A)                                                                                 |

## Biological Resources Report for the Jacumba Solar Energy Project

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### 9 REFERENCES

- 14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.
- 16 U.S.C. 1531–1544. Endangered Species Act, as amended.
- 16 U.S.C. 703–712. Migratory Bird Treaty Act, as amended.
- 16 U.S.C. 668–668d. Bald and Golden Eagle Protection Act. June 8, 1940, as amended 1959, 1962, 1972, and 1978.
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This report was prepared by Dudek biologists Melissa Blundell, Britney Strittmater, and Callie Ford. Dudek senior biologists Brock Ortega and Jeff Priest provided review assistance and coordination with the client and County as the County Approved biologists. Graphics and GIS mapping and analyses were provided by Randy Deodat. Laurel Porter, Anne McDonnell, and Holly Zynda provided editorial support. Devin Brookhart, Ellie Choa, David Mueller and Lindsey Messner provided formatting.

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# **APPENDIX A**

## *List of Plant Species Observed*



## APPENDIX A

### List of Plant Species Observed

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#### VASCULAR SPECIES

##### DICOTS

##### ***ASTERACEAE—SUNFLOWER FAMILY***

- Ericameria brachylepis*—chaparral goldenbush
- Ericameria linearifolia*—narrowleaf goldenbush
- Lasthenia californica*—California goldfields
- Ericameria* sp.—goldenbush sp.
- Gutierrezia* sp.—snakeweed sp.
- Lasthenia* sp.—goldfields

##### ***BORAGINACEAE—BORAGE FAMILY***

- Amsinckia menziesii*—Menzies' fiddleneck
- Amsinckia* sp.—fiddleneck species
- Cryptantha* sp.—Popcorn flower
- Phacelia* sp.—phacelia

##### ***FABACEAE—LEGUME FAMILY***

- Acmispon glaber*—common deerweed
- Senegalia greggii*—catclaw acacia

##### ***GERANIACEAE—GERANIUM FAMILY***

- \* *Erodium cicutarium*—redstem stork's bill
- \* *Erodium* sp.—stork's bill

##### ***ONAGRACEAE—EVENING PRIMROSE FAMILY***

- Camissonia* sp.—evening primrose

##### ***OROBANCHACEAE—BROOM-RAPE FAMILY***

- Castilleja* sp.—indian paintbrush

##### ***POLEMONIACEAE—PHLOX FAMILY***

- Leptosiphon lemmonii*—Lemmon's linanthus

##### ***POLYGONACEAE—BUCKWHEAT FAMILY***

- Eriogonum fasciculatum* var. *polifolium*—Eastern Mojave buckwheat
- Eriogonum* sp.—buckwheat sp.

## APPENDIX A (Continued)

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### ***SIMMONDSIACEAE—JOJOBA FAMILY***

*Simmondsia chinensis*—jojoba

### ***ZYGOPHYLLACEAE—CALTROP FAMILY***

*Larrea tridentata*—creosote bush

## **GYMNOSPERMS AND GNETOPHYTES**

### ***CUPRESSACEAE—CYPRESS FAMILY***

*Juniperus californica*—California juniper

### ***EPHEDRACEAE—EPHEDRA FAMILY***

*Ephedra* sp.—jointfir sp.

## **MONOCOTS**

### ***AGAVACEAE—AGAVE FAMILY***

*Hesperoyucca whipplei*—chaparral yucca

*Yucca schidigera*—Mojave yucca

*Agave* sp —agave species

### ***POACEAE—GRASS FAMILY***

\* *Schismus barbatus*—common Mediterranean grass

*Hilaria rigida*—big galleta

*Bromus* sp.—brome

\* signifies introduced (non-native) species

# **APPENDIX B**

## *List of Wildlife Species Observed*



## APPENDIX B

### List of Wildlife Species Observed

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#### BIRD

#### BLACKBIRDS, ORIOLES AND ALLIES

##### ***ICTERIDAE—BLACKBIRDS***

- Icterus parisorum*—Scott's oriole
- Quiscalus mexicanus*—Great-tailed grackle
- \* *Molothrus ater*—Brown-headed cowbird
- Icterus cucullatus*—Hooded oriole

#### BUSHTITS

##### ***AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS***

- Psaltiriparus minimus*—Bushtit

#### EMBERIZINES

##### ***EMBERIZIDAE—EMBERIZIDS***

- Amphispiza bilineata*—Black-throated sparrow
- Chondestes grammacus*—Lark sparrow
- Melospiza crissalis*—California towhee
- Pipilo maculatus*—Spotted towhee
- Spizella breweri*—Brewer's sparrow
- Zonotrichia leucophrys*—White-crowned sparrow
- Junco hyemalis*—Dark-eyed junco
- Spizella passerina*—Chipping sparrow
- Artemisiospiza belli belli*—Bell's sage sparrow
- Artemisiospiza nevadensis*—Sagebrush sparrow

#### FALCONS

##### ***FALCONIDAE—CARACARAS AND FALCONS***

- Falco sparverius*—American kestrel

#### FINCHES

##### ***FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES***

- Carpodacus mexicanus*—House finch

## APPENDIX B (Continued)

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### FLYCATCHERS

#### ***TYRANNIDAE—TYRANT FLYCATCHERS***

*Myiarchus cinerascens*—Ash-throated flycatcher

*Tyrannus vociferans*—Cassin's kingbird

### GOATSUCKERS

#### ***CAPRIMULGIDAE—GOATSUCKERS***

*Chordeiles acutipennis*—Lesser nighthawk

### HAWKS

#### ***ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES***

*Accipiter striatus*—Sharp-shinned hawk

*Buteo jamaicensis*—Red-tailed hawk

### HUMMINGBIRDS

#### ***TROCHILIDAE—HUMMINGBIRDS***

*Calypte anna*—Anna's hummingbird

*Calypte costae*—Costa's hummingbird

### JAYS, MAGPIES AND CROWS

#### ***CORVIDAE—CROWS AND JAYS***

*Aphelocoma californica*—Western scrub-jay

*Corvus corax*—Common raven

### LARKS

#### ***ALAUDIDAE—LARKS***

*Eremophila alpestris actia*—California horned lark

### MOCKINGBIRDS AND THRASHERS

#### ***MIMIDAE—MOCKINGBIRDS AND THRASHERS***

*Mimus polyglottos*—Northern mockingbird

*Toxostoma redivivum*—California thrasher

## APPENDIX B (Continued)

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### NEW WORLD QUAIL

#### ***ODONTOPHORIDAE—NEW WORLD QUAIL***

*Callipepla californica*—California quail

### NEW WORLD VULTURES

#### ***CATHARTIDAE—CARDINALS AND ALLIES***

*Cathartes aura*—Turkey vulture

### OLD WORLD WARBLERS AND GNATCATCHERS

#### ***SYLVIIDAE—SYLVIID WARBLERS***

*Polioptila caerulea*—Blue-gray gnatcatcher

*Polioptila melanura*—Black-tailed gnatcatcher

### OWLS

#### ***TYTONIDAE—BARN OWLS***

*Tyto alba*—Barn owl

### PIGEONS AND DOVES

#### ***COLUMBIDAE—PIGEONS AND DOVES***

*Patagioenas fasciata*—Band-tailed pigeon

*Zenaida macroura*—Mourning dove

### ROADRUNNERS AND CUCKOOS

#### ***CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS***

*Geococcyx californianus*—Greater roadrunner

### SHOREBIRDS

#### ***CHARADRIIDAE—LAPWINGS AND PLOVERS***

*Charadrius vociferus*—Killdeer

### SHRIKES

#### ***LANIIDAE—SHRIKES***

*Lanius ludovicianus*—Loggerhead shrike

## APPENDIX B (Continued)

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### SILKY FLYCATCHERS

#### ***PTILOGONATIDAE—SILKY-FLYCATCHERS***

*Phainopepla nitens*—Phainopepla

### SWALLOWS

#### ***HIRUNDINIDAE—SWALLOWS***

*Petrochelidon pyrrhonota*—Cliff swallow

### SWIFTS

#### ***APODIDAE—SWIFTS***

*Aeronautes saxatalis*—White-throated swift

### THRUSHES

#### ***TURDIDAE—THRUSHES***

*Sialia mexicana*—Western bluebird

*Turdus migratorius*—American robin

### VERDIN

#### ***REMIZIDAE—PENDULINE TITS AND VERDINS***

*Auriparus flaviceps*—Verdin

### WOOD WARBLERS AND ALLIES

#### ***PARULIDAE—WOOD-WARBLERS***

*Setophaga nigrescens*—Black-throated gray warbler

### WOODPECKERS

#### ***PICIDAE—WOODPECKERS AND ALLIES***

*Picoides nuttallii*—Nuttall's woodpecker

### WRENS

#### ***TROGLODYTIDAE—WRENS***

*Salpinctes obsoletus*—Rock wren

*Thryomanes bewickii*—Bewick's wren

*Campylorhynchus brunneicapillus*—Cactus wren

## APPENDIX B (Continued)

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### WRENTITS

#### ***TIMALIIDAE—BABBLERS***

*Chamaea fasciata*—Wrentit

### INVERTEBRATE

### BUTTERFLIES

#### ***LYCAENIDAE—BLUES, HAIRSTREAKS, AND COPPERS***

*Callophrys dumetorum*—Bramble hairstreak

*Callophrys gryneus loki*—Loki juniper hairstreak

*Callophrys gryneus thornei*—Thorne's juniper hairstreak

*Callophrys gryneus*—Juniper hairstreak

*Glaucopsyche lygdamus australis*—Southern blue

*Plebejus acmon*—Acmon blue

*Brephidium exile*—Western pygmy-blue

*Callophrys dumetorum perplexa*—Perplexing (green) hairstreak

*Glaucopsyche lygdamus*—Southern blue

#### ***NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES***

*Danaus plexippus*—Monarch

*Junonia coenia*—Common buckeye

*Vanessa annabella*—West coast lady

*Vanessa cardui*—Painted lady

*Euphydryas chalcedona*—Chalcedon checkerspot

#### ***RIODINIDAE—METALMARKS***

*Apodemia mormo virgulti*—Behr's metalmark

#### ***HESPERIIDAE—SKIPPERS***

*Erynnis funeralis*—Funereal duskywing

#### ***PAPILIONIDAE—SWALLOWTAILS***

*Papilio polyxenes coloro*—Desert black swallowtail

*Papilio rutulus*—Western tiger swallowtail

*Papilio zelicaon*—Anise swallowtail

#### ***PIERIDAE—WHITES AND SULFURS***

*Anthocharis cethura*—Desert orangetip

*Colias eurydice*—California dogface

## APPENDIX B (Continued)

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*Colias eurytheme*—Orange sulphur  
*Colias harfordii*—Harford's sulphur  
*Euchloe hyantis lotta*—Desert pearly marble  
*Pontia protodice*—Checkered white  
*Anthocharis* sp.—orangetip sp.  
*Euchloe hyantis*—Pearly marble  
*Anthocharis sara*—Sara orangetip

### ***EREBIDAE—MOTHS AND ALLIES***

*Notarctia proxima*—Mexican tiger moth

### **ANTS, BEES, WASPS, AND HORNETS**

### ***FORMICIDAE—ANTS***

*Pogonomyrmex* sp.—harvester ant

### **MAMMAL**

### **CANIDS**

### ***CANIDAE—WOLVES AND FOXES***

*Canis latrans*—Coyote

### **CATS**

### ***FELIDAE—CATS***

*Lynx rufus*—Bobcat

### **DOMESTIC**

### ***EQUIDAE—HORSES AND BURROS***

\* *Equus caballus*—Domestic horse

### **HARES AND RABBITS**

### ***LEPORIDAE—HARES AND RABBITS***

*Sylvilagus audubonii*—Desert cottontail  
*Sylvilagus bachmani*—Brush rabbit  
*Lepus californicus*—Black-tailed jackrabbit

## APPENDIX B (Continued)

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### KANGAROO RATS

#### ***HETEROMYIDAE—POCKET MICE AND KANGAROO RATS***

*Dipodomys* sp.—kangaroo rat

### MUSTELIDS

#### ***MUSTELIDAE—WEASELS, SKUNKS, AND OTTERS***

*Mustela frenata*—Long-tailed weasel

### POCKET GOPHERS

#### ***GEOMYIDAE—POCKET GOPHERS***

*Thomomys bottae*—Botta's pocket gopher

### RATS AND MICE

#### ***MURIDAE—RATS AND MICE***

*Neotoma* sp.—woodrat (middens)

### SQUIRRELS

#### ***SCIURIDAE—SQUIRRELS***

*Ammospermophilus leucurus*—White-tailed antelope squirrel

*Spermophilus*(*Otospermophilus*) *beecheyi*—California ground squirrel

*Tamias* sp.—chipmunk

### REPTILE

### LIZARDS

#### ***PHRYNOSOMATIDAE—IGUANID LIZARDS***

*Callisaurus draconoides*—Zebra-tailed lizard

*Petrosaurus mearnsi*—Banded rock lizard

*Sceloporus occidentalis*—Western fence lizard

*Sceloporus orcutti*—Granite spiny lizard

*Uta stansburiana*—Common side-blotched lizard

#### ***TEIIDAE—WHIPTAIL LIZARDS***

*Aspidoscelis tigris*—Tiger whiptail

## APPENDIX B (Continued)

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### SNAKES

#### ***VIPERIDAE—VIPERS***

*Crotalus oreganus helleri* —Southern pacific diamondback

\* signifies introduced (non-native) species

# **APPENDIX C**

*Special-Status Plant Species Detected or  
Potentially Occurring on the Project Site*



## APPENDIX C

### Special-Status Plant Species Detected or Potentially Occurring in Project Area

| Scientific Name/<br>Common Name                                                      | Sensitivity Code<br>and Status<br>(Federal/State/CRPR/<br>County/ECMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                     | Verified on<br>Site<br>(direct/indirect<br>evidence) | Potential to Occur<br>on Site   | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Acmispon<br/>haydonii</i><br>pygmy lotus                                          | None/ None/ 1B.3<br>/List A /MSCP                                                     | Pinyon and juniper woodland,<br>Sonoran desert scrub/rocky/<br>perennial herb/ Jan-Jun/ 1706-<br>3937                                                                | No                                                   | Moderate potential<br>to occur. | The project site is located within the species' known<br>elevation range and suitable vegetation and soils are<br>present. Species is known to occur within the vicinity <sup>2</sup> .<br>The closest occurrences are approximately 1.5 miles<br>east and north of the project site (CDFW 2014a;<br>Jepson eFlora 2014; SDNHM 2012a). Therefore, there<br>is a moderate potential for this species to occur on site.                                    |
| <i>Astragalus<br/>douglasii</i> var.<br><i>perstrictus</i><br>Jacumba milk-<br>vetch | None/ None/ 1B.2<br>/List A /MSCP                                                     | Chaparral, Cismontane<br>woodland, Pinyon and juniper<br>woodland, Riparian scrub, Valley<br>and foothill grassland/rocky/<br>perennial herb/ Apr-Jun/ 2953-<br>4495 | No                                                   | High potential to<br>occur.     | The project site is located within the species' known<br>elevation range and suitable vegetation and soils are<br>present. One CNDDDB occurrence overlaps with the<br>northwest corner of project site and additional<br>occurrences occur within the vicinity <sup>2</sup> . Species also<br>observed during surveys for ECO Substation project<br>site (CPUC and BLM 2011). Therefore, there is a high<br>potential for this species to occur on site. |
| <i>Berberis fremontii</i><br>Fremont barberry                                        | None/ None/ 2.3 /List<br>C /MSCP                                                      | Chaparral, Joshua tree<br>"woodland", Pinyon and juniper<br>woodland/rocky/ perennial<br>evergreen shrub/ Apr-Jun/ 2756-<br>6070                                     | No                                                   | Moderate potential<br>to occur. | The project site is located within the species' known<br>elevation range and suitable vegetation and soils are<br>present. Species is known to occur within the vicinity <sup>2</sup> .<br>The closest occurrences are approximately 1.8 and 3.0<br>miles west of the project site (CDFW 2014a).<br>Therefore, there is a moderate potential for this species<br>to occur on site.                                                                       |
| <i>Caulanthus<br/>simulans</i><br>Payson's jewel-<br>flower                          | None/ None/ 4.2 /List<br>D /MSCP                                                      | Chaparral, Coastal scrub/sandy,<br>granitic/ annual herb/ (Feb),Mar-<br>May(Jun),/ 295-7218                                                                          | No                                                   | Moderate potential<br>to occur. | The project site is located within the species' known<br>elevation range and suitable vegetation and soils are<br>present. Species known to occur within the vicinity <sup>2</sup> .<br>Several occurrences are located approximately 6 miles<br>(and greater) west of the project site (CDFW 2014a,<br>Jepson eFlora 2014). Therefore, there is a moderate<br>potential for this species to occur on site.                                              |
| <i>Deinandra<br/>floribunda</i><br>Tecate tarplant                                   | None/ None/ 1B.2<br>/List A /MSCP                                                     | Chaparral, Coastal scrub/ annual<br>herb/ Aug-Oct/ 230-4003                                                                                                          | No                                                   | High potential to<br>occur.     | The project site is located within the species' known<br>elevation range and suitable vegetation and soils are<br>present. Species is known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                                  |

## APPENDIX C (Continued)

| Scientific Name/<br>Common Name                                                | Sensitivity Code<br>and Status<br>(Federal/State/CRPR/<br>County/ECMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                      | Verified on<br>Site<br>(direct/indirect<br>evidence) | Potential to Occur<br>on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                |                                                                                       |                                                                                                                       |                                                      |                               | The closest occurrence is approximately 1.8 miles west of project site (CDFW 2014a). In addition, this species is known to occur within drainages and there are numerous drainages present on site, therefore, there is a high potential for this species to occur on site.                                                                                                                                                                                    |
| <i>Delphinium parishii</i> ssp. <i>subglobosum</i><br>Colorado Desert larkspur | None/ None/ 4.3 /List D                                                               | Chaparral, Cismontane woodland, Pinyon and juniper woodland, Sonoran desert scrub/ perennial herb/ Mar-Jun/ 1969-5906 | No                                                   | Moderate potential to occur   | The project site is located within the species' known elevation range and suitable vegetation is present. Species observed during surveys for ECO Substation project (CPUC and BLM 2011) and several potential occurrences in the vicinity <sup>2</sup> with the nearest occurrence approximately 0.4 miles north and northwest of the project site (Jepson eFlora 2014).                                                                                      |
| <i>Geraea viscida</i><br>sticky geraea                                         | None/ None/ 2.3 /List B /MSCP                                                         | Chaparral(often in disturbed areas)/ perennial herb/ May-Jun/ 1476-5577                                               | No                                                   | Moderate potential to occur.  | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species has many occurrences within the vicinity <sup>2</sup> , nearest occurrences approximately 1.3 miles north and 2 miles east of the project (CDFW 2014a). In addition, this species was observed during surveys for ECO Substation (CPUC and BLM 2011). Therefore, there is a moderate potential for this species to occur on site. |
| <i>Harpagonella palmeri</i><br>Palmer's grapplinghook                          | None/ None/ 4.2 /List D /MSCP                                                         | Chaparral, Coastal scrub, Valley and foothill grassland/clay/ annual herb/ Mar-May/ 66-3133                           | No                                                   | Moderate potential to occur.  | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur within the vicinity <sup>2</sup> of the project site (Jepson eFlora 2014; SDNHM 2014a) and was observed at ECO Substation project site (RBC 2009a). Therefore, there is a moderate potential for this species to occur on site.                                                                                 |
| <i>Ipomopsis tenuifolia</i><br>slender-leaved ipomopsis                        | None/ None/ 2.3 /List B                                                               | Chaparral, Pinyon and juniper woodland, Sonoran desert scrub/gravelly or rocky/ perennial herb/ Mar-May/ 328-3937     | No                                                   | Moderate potential to occur.  | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species has many known occurrences within the vicinity <sup>2</sup> . There are approximately 32 occurrences within 5 miles of the project site. The closest occurrences occur approximately 0.3 miles northwest and southeast of the project site (CDFW 2014a). In                                                                       |

## APPENDIX C (Continued)

| Scientific Name/<br>Common Name                                                   | Sensitivity Code<br>and Status<br>(Federal/State/CRPR/<br>County/ECMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)       | Verified on<br>Site<br>(direct/indirect<br>evidence) | Potential to Occur<br>on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                   |                                                                                       |                                                                                        |                                                      |                               | addition, this species was also observed during surveys for ECO Substation (CPUC and BLM 2011). Therefore, there is a high potential for this species to occur on site.                                                                                                                                                                                                                                                                                                               |
| <i>Lathyrus splendens</i><br>pride-of-California                                  | None/ None/ 4.3 /List D /MSCP                                                         | Chaparral/ perennial herb/ Mar-Jun/ 656-5003                                           | No                                                   | Moderate potential to occur.  | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur in the vicinity <sup>2</sup> . In addition, this species was observed during surveys for ECO Substation (CPUC and BLM 2011). Therefore, there is a moderate potential for this species to occur on site.                                                                                                                               |
| <i>Linanthus bellus</i><br>desert beauty                                          | None/ None/ 2.3 /List B /MSCP                                                         | Chaparral(sandy)/ annual herb/ Apr-May/ 3281-4593                                      | No                                                   | High potential to occur.      | The project site is located slightly below the species' known elevation range; however, there is suitable vegetation and soils present. One known occurrence overlaps with project site; however, exact location of occurrence unknown (CDFW 2014a). In addition, this species was also observed during surveys for ECO Substation (CPUC and BLM 2011). Several additional occurrences in the vicinity <sup>2</sup> . Therefore, there is a high potential for this species to occur. |
| <i>Lupinus excubitus</i><br>var. <i>medius</i><br>Mountain Springs<br>bush lupine | None/ None/ 1B.3 /List A /MSCP                                                        | Pinyon and juniper woodland, Sonoran desert scrub/ perennial shrub/ Mar-May/ 1394-4495 | No                                                   | Moderate potential to occur.  | The project site is located within the species' known elevation range and suitable vegetation and soils are present. One known occurrence is directly outside the northwest corner of project boundary (CDFW 2014a). Approximately 20 additional occurrences within 5 miles of project site (CDFW 2014a) and additional occurrences are known to occur within the vicinity <sup>2</sup> . Therefore, there is a moderate potential for this species to occur.                         |
| <i>Mimulus aurantiacus</i> var. <i>aridus</i><br>low bush<br>monkeyflower         | None/ None/ 4.3 /List D                                                               | Chaparral(rocky), Sonoran desert scrub/ perennial evergreen shrub/ Apr-Jul/ 2461-3937  | No                                                   | Moderate potential to occur.  | The project site is located within the species' known elevation range and suitable vegetation and rocky soils are present. Species was observed during surveys for ECO Substation project (CPUC and BLM 2011) and many occurrences are known to occur within the vicinity <sup>2</sup> (Jepson eFlora 2014). Therefore, there is a moderate potential for this species to occur on site.                                                                                              |

## APPENDIX C (Continued)

| Scientific Name/<br>Common Name                                 | Sensitivity Code<br>and Status<br>(Federal/State/CRPR/<br>County/ECMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                     | Verified on<br>Site<br>(direct/indirect<br>evidence) | Potential to Occur<br>on Site   | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Streptanthus<br/>campestris</i><br>southern jewel-<br>flower | None/ None/ 1B.3<br>/List A                                                           | Chaparral, Lower montane<br>coniferous forest, Pinyon and<br>juniper woodland/rocky/<br>perennial herb/ (Apr), May-Jul/<br>2953-7546 | No                                                   | Moderate potential<br>to occur. | The project site is located within the species' known<br>elevation range and suitable vegetation and soils are<br>present. Species is known to occur within the vicinity <sup>2</sup><br>with the nearest occurrence occurring approximately 2<br>miles northeast and 4.8 miles northwest of the project<br>site (CDFW 2014a). Additional occurrences<br>approximately 2 miles east of the site (Jepson eFlora<br>2014). Therefore, there is a moderate potential for this<br>species to occur on site. |
| <i>Tetracoccus<br/>dioicus</i><br>Parry's<br>tetracoccus        | None/ None/ 1B.2<br>/List A                                                           | Chaparral, Coastal scrub/<br>perennial deciduous shrub/ Apr-<br>May/ 541-3281                                                        | No                                                   | Moderate potential<br>to occur. | Suitable vegetation is present; the project site is<br>located within the species' known elevation range and<br>the nearest known occurrence is approximately 2.5<br>miles west of the project site (CDFW 2014a).<br>Therefore, there is a moderate potential for this species<br>to occur on site.                                                                                                                                                                                                     |

<sup>1</sup> Status:

CE: Candidate for federally listed as endangered.  
 FT: Federally listed as threatened.  
 SE: State-listed as endangered.  
 SR: State-listed as rare.  
 MSCP: Draft Covered Species under the ECMSCP

CRPR: California Rare Plant Rank

1A (formerly List 1A): Plants Presumed Extinct in California

1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere

2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3 (formerly List 3): Plants About Which We Need More Information—A Review List

4 (formerly List 4): Plants of Limited Distribution—A Watch List

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% occurrences threatened/moderate degree and immediacy of threat)

0.3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

<sup>2</sup> "Vicinity" is based on a search of the CNDDB and CNPS databases for the Jacumba quad and the six surrounding quads (Carrizo Mtn, Sweeney Pass, Sombrero Peak, In-ko-pah Gorge, Live Oak Springs, and Tierra del Sol) conducted in July 2014. Also includes a search of species detected within 5 miles from the project site (Jepson eflora 2014) and species within the U28, U29, T28, and T29 grids (SDNHM 2014a) conducted in July 201

# **APPENDIX D**

*Special-Status Plant Species Not Expected to  
Occur or Rarely Occurring in the Project Area*



## APPENDIX D

### Special-Status Plant Species Not Expected to Occur or Rarely Occur in the Project Area

| Scientific Name<br>Common Name                                             | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                          | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Abronia maritima</i><br>red sand-verbena                                | None/ None/ 4.2<br>/List D                                                                | Coastal dunes/ perennial herb/ Feb-Nov/<br>0-328                                                                          | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>site is located outside of the species' known<br>elevation range. Species is not known to<br>occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                                                                     |
| <i>Abronia villosa</i> var.<br><i>aurita</i><br>chaparral sand-<br>verbena | None/ None/ 1B.1<br>/List A                                                               | Chaparral, Coastal scrub, Desert<br>dunes/sandy/ annual herb/ Jan-Sep/ 246-<br>5249                                       | No                                                           | Low potential to<br>occur     | Although suitable vegetation (semi-desert<br>chaparral) and soils are present and the site<br>is located within the species' known elevation<br>range, species is not known to occur within<br>the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                             |
| <i>Acanthomintha</i><br><i>ilicifolia</i><br>San Diego thorn-mint          | FT/ SE/ 1B.1 /List<br>A /MSCP                                                             | Chaparral, Coastal scrub, Valley and<br>foothill grassland, Vernal pools/clay,<br>openings/ annual herb/ Apr-Jun/ 33-3150 | No                                                           | Not expected to<br>occur.     | Although soils are present and the project<br>site is located within the species' known<br>elevation range, the species is not known to<br>occur within the vicinity <sup>2</sup> and the site lacks<br>suitable vernal pools. This species is known<br>to occur in coastal San Diego County and<br>south to San Telmo in northern Baja<br>California (73 FR 50454–50496). The<br>nearest known occurrence is approximately<br>35 miles northwest of the project site<br>(CDFW 2014a). |
| <i>Acmispon prostratus</i><br>Nuttall's acmispon                           | None/ None/ 1B.1<br>/List A                                                               | Coastal dunes, Coastal scrub(sandy)/<br>annual herb/ Mar-Jun(Jul)/ 0-33                                                   | No                                                           | Not expected to<br>occur.     | Species not known to occur in the vicinity <sup>2</sup> .<br>Additionally, the project site is located<br>outside of the species' known elevation<br>range and there is no suitable vegetation<br>present.                                                                                                                                                                                                                                                                             |
| <i>Adolphia californica</i><br>California adolphia                         | None/ None/ 2.3<br>/List B                                                                | Chaparral, Coastal scrub, Valley and<br>foothill grassland/clay/ perennial deciduous<br>shrub/ Dec-May/ 148-2428          | No                                                           | Not expected to<br>occur.     | Although suitable vegetation (chaparral) and<br>soils are present, species not known to occur<br>in the vicinity <sup>2</sup> . Additionally, the site is outside<br>of the species' known elevation range.                                                                                                                                                                                                                                                                            |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                       | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                                                 | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Agave shawii</i> var.<br><i>shawii</i><br>Shaw's agave                            | None/ None/ 2.3<br>/List B                                                                | Coastal bluff scrub, Coastal scrub/<br>perennial leaf succulent/ Sep-May/ 33-394                                                                                                                 | No                                                           | Not expected to<br>occur.     | Species not known to occur in the vicinity <sup>2</sup> of<br>the project. Additionally, the site is outside<br>of the species' known elevation range and<br>there is no suitable vegetation present.                                                                                            |
| <i>Ambrosia<br/>chenopodiifolia</i><br>San Diego bur-sage                            | None/ None/ 2.3<br>/List B                                                                | Coastal scrub/ perennial shrub/ Apr-Jun/<br>180-509                                                                                                                                              | No                                                           | Not expected to<br>occur.     | Species not known to occur in the vicinity <sup>2</sup> of<br>the project. Additionally, the site is outside<br>of the species' known elevation range and<br>there is no suitable vegetation present.                                                                                            |
| <i>Ambrosia pumila</i><br>San Diego ambrosia                                         | FE/ None/ 1B.1<br>/List A                                                                 | Chaparral, Coastal scrub, Valley and<br>foothill grassland, Vernal pools/sandy loam<br>or clay, often in disturbed areas,<br>sometimes alkaline/ perennial rhizomatous<br>herb/ Apr-Oct/ 66-1362 | No                                                           | Not expected to<br>occur.     | Although suitable habitat and soils are<br>present, the site is located outside of the<br>species' known elevation range. Species is<br>not known to occur within the vicinity <sup>2</sup> .<br>Nearest known occurrence is approximately<br>50 miles west of the project site (CDFW<br>2014a). |
| <i>Androsace elongata</i><br>ssp. <i>acuta</i><br>California androsace               | None/ None/ 4.2<br>/List D                                                                | Chaparral, Cismontane woodland, Coastal<br>scrub, Meadows and seeps, Pinyon and<br>juniper woodland, Valley and foothill<br>grassland/ annual herb/ Mar-Jun/ 492-<br>3937                        | No                                                           | Low potential to<br>occur.    | Although suitable vegetation (semi-desert<br>chaparral, pinyon and juniper woodland) are<br>present and site is within species' known<br>elevation range, species not known to occur<br>in the vicinity <sup>2</sup> .                                                                           |
| <i>Aphanisma blitoides</i><br><i>aphanisma</i>                                       | None/ None/ 1B.2<br>/List A                                                               | Coastal bluff scrub, Coastal dunes,<br>Coastal scrub/sandy/ annual herb/ Mar-<br>Jun/ 3-1001                                                                                                     | No                                                           | Not expected to<br>occur.     | Species not known to occur in the vicinity <sup>2</sup> .<br>Additionally, the project site is located<br>outside of the species' known elevation<br>range and there is no suitable vegetation<br>present.                                                                                       |
| <i>Arctostaphylos<br/>glandulosa</i> ssp.<br><i>crassifolia</i><br>Del Mar manzanita | FE/ None/ 1B.1<br>/List A                                                                 | Chaparral(maritime, sandy)/ perennial<br>evergreen shrub/ Dec-Jun/ 0-1198                                                                                                                        | No                                                           | Not expected to<br>occur.     | Although suitable vegetation is present,<br>species not known to occur in the vicinity <sup>2</sup> .<br>Additionally, the site is outside of the<br>species' known elevation range.                                                                                                             |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                        | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                      | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site            | Factual Basis for Determination                                                                                                                                                                                                   |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Arctostaphylos<br/>otayensis</i><br>Otay manzanita                 | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral, Cismontane<br>woodland/metavolcanic/ perennial<br>evergreen shrub/ Jan-Apr/ 902-5577                                                       | No                                                           | Low potential to<br>occur.               | Although the project site is located within<br>the species' known elevation range and<br>there is suitable vegetation (semi-desert<br>chaparral), and soils present, species not<br>known to occur in the vicinity <sup>2</sup> . |
| <i>Arctostaphylos<br/>rainbowensis</i><br>Rainbow manzanita           | None/ None/ 1B.1<br>/List A                                                               | Chaparral/ perennial evergreen shrub/<br>Dec-Mar/ 673-2198                                                                                            | No                                                           | Not expected to<br>occur.                | Although suitable vegetation is present,<br>species not known to occur in the vicinity <sup>2</sup> .<br>Additionally, the site is outside of the<br>species' known elevation range.                                              |
| <i>Artemisia palmeri</i><br>San Diego sagewort                        | None/ None/ 4.2<br>/List D                                                                | Chaparral, Coastal scrub, Riparian forest,<br>Riparian scrub, Riparian woodland/sandy,<br>mesic/ perennial deciduous shrub/<br>(Feb),May-Sep/ 49-3002 | No                                                           | Not expected to<br>occur. The site<br>is | Although suitable vegetation is present,<br>species not known to occur in the vicinity <sup>2</sup> of<br>the project. Additionally, the site is outside<br>of the species' known elevation range.                                |
| <i>Asplenium<br/>vespertinum</i><br>western spleenwort                | None/ None/ 4.2<br>/List D                                                                | Chaparral, Cismontane woodland, Coastal<br>scrub/rocky/ perennial rhizomatous herb/<br>Feb-Jun/ 591-3281                                              | No                                                           | Low potential to<br>occur.               | Although the project site is located within<br>the species' known elevation range and<br>there is suitable vegetation (semi-desert<br>chaparral= and soils present, species not<br>known to occur in the vicinity.                |
| <i>Astragalus crotalariae</i><br>Salton milk-vetch                    | None/ None/ 4.3<br>/List D /MSCP                                                          | Sonoran desert scrub(sandy or gravelly)/<br>perennial herb/ Jan-Apr/ -197-820                                                                         | No                                                           | Not expected to<br>occur.                | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range.                                                                                                         |
| <i>Astragalus deanei</i><br>Dean's milk-vetch                         | None/ None/ 1B.1<br>/List A /MSCP                                                         | Chaparral, Cismontane woodland, Coastal<br>scrub, Riparian forest/ perennial herb/ Feb-<br>May/ 246-2280                                              | No                                                           | Not expected to<br>occur.                | Although suitable vegetation is present,<br>species not known to occur in the vicinity <sup>2</sup> .<br>Additionally, the project site is located<br>outside of the species' known elevation<br>range.                           |
| <i>Astragalus insularis</i><br>var. harwoodii<br>Harwood's milk-vetch | None/ None/ 2.3<br>/List B /MSCP                                                          | Desert dunes, Mojavean desert<br>scrub/sandy or gravelly/ annual herb/ Jan-<br>May/ 0-2329                                                            | No                                                           | Not expected to<br>occur.                | Species is known to occur within the vicinity <sup>2</sup><br>and suitable desert scrub and soils are present;<br>however, the project site is located outside of<br>the species' known elevation range.                          |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                             | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                    | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Astragalus lentiginos</i> var. borreganus<br>Borrogo milk-vetch         | None/ None/ 4.3<br>/List D /MSCP                                                          | Mojavean desert scrub, Sonoran desert scrub/sandy/ annual herb/ Feb-May/ 98-1050                                                    | No                                                           | Not expected to occur.        | Although suitable vegetation is present, species not known to occur in the vicinity <sup>2</sup> . Additionally, the project site is located outside of the species' known elevation range.    |
| <i>Astragalus magdalenae</i> var. <i>peirsonii</i><br>Peirson's milk-vetch | FT/ SE/ 1B.2 /List A                                                                      | Desert dunes/ perennial herb/ Dec-Apr/ 197-738                                                                                      | No                                                           | Not expected to occur.        | Species not known to occur in the vicinity <sup>2</sup> . Additionally, the project site is located outside of the species' known elevation range and there is no suitable vegetation present. |
| <i>Astragalus oocarpus</i><br>San Diego milk-vetch                         | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral(openings), Cismontane woodland/ perennial herb/ May-Aug/ 1001-5000                                                        | No                                                           | Low potential to occur.       | Suitable vegetation is present and the project site is located within the species' known elevation range; however, the species is not known to occur within the vicinity <sup>2</sup> .        |
| <i>Astragalus pachypus</i> var. <i>jaegeri</i><br>Jaeger's bush milk-vetch | None/ None/ 1B.1<br>/List A                                                               | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/sandy or rocky/ perennial shrub/ Dec-Jun/ 1198-3002    | No                                                           | Not expected to occur.        | Although suitable vegetation is present, species not known to occur in the vicinity <sup>2</sup> . Additionally, the site is outside of the species' known elevation range and.                |
| <i>Astragalus tener</i> var. <i>titi</i><br>coastal dunes milk-vetch       | FE/ SE/ 1B.1 /List A                                                                      | Coastal bluff scrub(sandy), Coastal dunes, Coastal prairie(mesic)/often vernally mesic areas/ annual herb/ Mar-May/ 3-164           | No                                                           | Not expected to occur.        | Although suitable vegetation and soils are present, the site is outside of the species' known elevation range. Additionally, no known occurrences in the vicinity <sup>2</sup> .               |
| <i>Atriplex coulteri</i><br>Coulter's saltbush                             | None/ None/ 1B.2<br>/List A                                                               | Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland/alkaline or clay/ perennial herb/ Mar-Oct/ 10-1509 | No                                                           | Not expected to occur.        | Species not known to occur in the vicinity <sup>2</sup> . Additionally, the site is outside of the species' known elevation range and there is no suitable vegetation present.                 |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                             | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                       | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Atriplex pacifica</i><br>South Coast saltscale                          | None/ None/ 1B.2<br>/List A                                                               | Coastal bluff scrub, Coastal dunes,<br>Coastal scrub, Playas/ annual herb/ Mar-<br>Oct/ 0-459          | No                                                           | Not expected to<br>occur.     | Species not known to occur in the vicinity <sup>2</sup> .<br>Additionally, the project site is outside of the<br>species' known elevation range and there is<br>no suitable vegetation present.                                                                                                                                                                                               |
| <i>Atriplex parishii</i><br>Parish's brittlescale                          | None/ None/ 1B.1<br>/List A                                                               | Chenopod scrub, Playas, Vernal<br>pools/alkaline/ annual herb/ Jun-Oct/ 82-<br>6234                    | No                                                           | Not expected to<br>occur.     | The project site is located within the<br>species' known elevation range; however,<br>there is no suitable vegetation or vernal<br>pools present and the species is not known<br>to occur within the vicinity <sup>2</sup> .                                                                                                                                                                  |
| <i>Atriplex serenana</i> var.<br><i>davidsonii</i><br>Davidson's saltscale | None/ None/ 1B.2<br>/List A                                                               | Coastal bluff scrub, Coastal scrub/alkaline/<br>annual herb/ Apr-Oct/ 33-656                           | No                                                           | Not expected to<br>occur.     | Species not known to occur in the vicinity <sup>2</sup> of<br>the project. Additionally, the site is outside<br>of the species' known elevation range and<br>there is no suitable vegetation present.                                                                                                                                                                                         |
| <i>Ayenia compacta</i><br>California ayenia                                | None/ None/ 2.3<br>/List B                                                                | Mojavean desert scrub, Sonoran desert<br>scrub/rocky/ perennial herb/ Mar-Apr/ 492-<br>3593            | No                                                           | Low potential to<br>occur.    | The project site is located within the<br>species' known elevation range and suitable<br>vegetation and soils are present. Species is<br>known to occur within the vicinity <sup>2</sup> . The<br>nearest known occurrence is approximately<br>11 miles north of the project and due to the<br>limited amount of suitable desert scrub, this<br>species has a low potential to occur on site. |
| <i>Azolla microphylla</i><br>Mexican mosquito<br>fern                      | None/ None/ 4.2<br>/List D                                                                | Marshes and swamps(ponds, slow water)/<br>annual/perennial herb/ Aug/ 98-328                           | No                                                           | Not expected to<br>occur.     | Species not known to occur in the vicinity <sup>2</sup> of<br>the project. Additionally, the site is outside<br>of the species' known elevation range and<br>there is no suitable vegetation present.                                                                                                                                                                                         |
| <i>Baccharis vanessae</i><br>Encinitas baccharis                           | FT/ SE/ 1B.1 /List<br>A                                                                   | Chaparral(maritime), Cismontane<br>woodland/sandstone/ perennial deciduous<br>shrub/ Aug-Nov/ 197-2362 | No                                                           | Not expected to<br>occur.     | Although suitable vegetation is present, the<br>site is outside of the species' known<br>elevation range. Additionally, no known<br>occurrences in the vicinity <sup>2</sup> of the project<br>site.                                                                                                                                                                                          |

## Appendix D (Continued)

| Scientific Name<br>Common Name                         | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                      | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Berberis nevinii</i><br>Nevin's barberry            | FE/ SE/ 1B.1 /List<br>A                                                                   | Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub/sandy or gravelly/ perennial evergreen shrub/ Mar-Jun/ 899-2707                                         | No                                                           | Not expected to occur.        | Although suitable vegetation and soils are present, the site is outside of the species' known elevation range. Additionally, there are no known occurrences in the vicinity <sup>2</sup> of the project site.                                                                                                                                                                                                                                                                                                                                               |
| <i>Bergerocactus emoryi</i><br>golden-spined cereus    | None/ None/ 2.3<br>/List B                                                                | Closed-cone coniferous forest, Chaparral, Coastal scrub/sandy/ perennial stem succulent/ May-Jun/ 10-1296                                                             | No                                                           | Not expected to occur.        | Although suitable vegetation and soils are present, the site is outside of the species' known elevation range. Additionally, there are no known occurrences in the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                                                                                                                                  |
| <i>Bloomeria clevelandii</i><br>San Diego goldenstar   | None/ None/ 1B.1<br>/List A                                                               | Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/clay/ perennial bulbiferous herb/ Apr-May/ 164-1526                                             | No                                                           | Not expected to occur.        | Although suitable vegetation and soils are present, the site is outside of the species' known elevation range. Additionally, there are no known occurrences in the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                                                                                                                                  |
| <i>Boechera hirshbergiae</i><br>Hirshberg's rockcress  | None/ None/ 1B.2<br>/List A /MSCP                                                         | Pebble plain/ perennial herb/ Mar-May/ 4593-4642                                                                                                                      | No                                                           | Not expected to occur.        | Species not known to occur in the vicinity <sup>2</sup> of the project. Additionally, the site is outside of the species' known elevation range and there is no suitable vegetation present.                                                                                                                                                                                                                                                                                                                                                                |
| <i>Brodiaea filifolia</i><br>thread-leaved<br>brodiaea | FT/ SE/ 1B.1 /List<br>A                                                                   | Chaparral(openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools/often clay/ perennial bulbiferous herb/ Mar-Jun/ 82-3675 | No                                                           | Not expected to occur.        | Although the project site is located within the species' known elevation range and there are clay soils present, the species is not known to occur within the vicinity <sup>2</sup> and the site lacks mesic conditions and suitable vernal pools. This species commonly occurs within mesic grassland and alkali grassland communities with clay or alkaline soils ranging in elevation from 100 to 2,500 feet, depending on soil series (FR 64930-64982). The nearest occurrence is located approximately 57 miles northeast of the project (CDFW 2014a). |

## Appendix D (Continued)

| Scientific Name<br>Common Name                          | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                                                             | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Brodiaea orcuttii</i><br>Orcutt's brodiaea           | None/ None/ 1B.1<br>/List A /MSCP                                                         | Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools/mesic, clay, sometimes serpentine/perennial bulbiferous herb/ May-Jul/ 98-5551 | No                                                           | Not expected to occur.        | Although the project site is located within the species' known elevation range and there is suitable vegetation and soils present, the species is not known to occur within the vicinity <sup>2</sup> and the site lacks suitable vernal pools and mesic conditions.                                                                                                                                                                            |
| <i>Bursera microphylla</i><br>little-leaf elephant tree | None/ None/ 2.3<br>/List B /MSCP                                                          | Sonoran desert scrub(rocky)/ perennial deciduous tree/ Jun-Jul/ 656-2297                                                                                                                                     | No                                                           | Not expected to occur.        | Suitable vegetation and soils are present; however, the project site is located outside of the species' known elevation range.                                                                                                                                                                                                                                                                                                                  |
| <i>Calandrinia breweri</i><br>Brewer's calandrinia      | None/ None/ 4.2<br>/List D                                                                | Chaparral, Coastal scrub/sandy or loamy, disturbed sites and burns/ annual herb/ Mar-Jun/ 33-4003                                                                                                            | No                                                           | Low potential to occur.       | Although the project site is located within the species' known elevation range and there is suitable vegetation (semi-desert chaparral, disturbed and soils present, the species is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                       |
| <i>California macrophylla</i><br>round-leaved filaree   | None/ None/ 1B.1<br>/List B                                                               | Cismontane woodland, Valley and foothill grassland/clay/ annual herb/ Mar-May/ 49-3937                                                                                                                       | No                                                           | Not expected to occur         | Although the project site is located within the species' known elevation range, this species is not known to occur within the vicinity <sup>2</sup> and no suitable vegetation is present.                                                                                                                                                                                                                                                      |
| <i>Calliandra eriophylla</i><br>pink fairy-duster       | None/ None/ 2.3<br>/List B /MSCP                                                          | Sonoran desert scrub(sandy or rocky)/ perennial deciduous shrub/ Jan-Mar/ 394-4921                                                                                                                           | No                                                           | Low potential to occur.       | The project site is located within the species' known elevation range, suitable vegetation and soils are present and the species is known to occur within the vicinity <sup>2</sup> with two occurrences approximately 6.5 miles east of the project site (CDFW 2014a, Jepson eFlora 2014). However, there is a limited amount of suitable habitat present (3.23 acres); therefore, there is a low potential for this species to occur on site. |

## Appendix D (Continued)

| Scientific Name<br>Common Name                           | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                                                                      | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Calochortus catalinae</i><br>Catalina mariposa lily   | None/ None/ 4.2<br>/List D                                                                | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/ perennial bulbiferous herb/ (Feb),Mar-Jun/ 49-2297                                                                                      | No                                                           | Not expected to occur.        | Although suitable vegetation is present, no known occurrences in the vicinity <sup>2</sup> . Additionally, the site is outside of the species' known elevation range.                                                          |
| <i>Calochortus dunnii</i><br>Dunn's mariposa lily        | None/ SR/ 1B.2<br>/List A /MSCP                                                           | Closed-cone coniferous forest, Chaparral, Valley and foothill grassland/gabbroic or metavolcanic, rocky/ perennial bulbiferous herb/ (Feb),Apr-Jun/ 607-6004                                                          | No                                                           | Low potential to occur.       | Although the project site is located within the species' known elevation range and suitable vegetation (semi-desert chaparral) and soils are present, species is not known to occur within the vicinity <sup>2</sup> .         |
| <i>Camissoniopsis lewisii</i><br>Lewis' evening-primrose | None/ None/ 3<br>/List C                                                                  | Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland/sandy or clay/ annual herb/ Mar-May(Jun),/ 0-984                                                                | No                                                           | Not expected to occur.        | Although suitable sandy soils are present, the species is not known to occur within the vicinity <sup>2</sup> . The project site is outside of the species' known elevation range and there is no suitable vegetation present. |
| <i>Carex obispoensis</i><br>San Luis Obispo sedge        | None/ None/ 1B.2<br>/None /MSCP                                                           | Closed-cone coniferous forest, Chaparral, Coastal prairie, Coastal scrub, Valley and foothill grassland/often serpentinite seeps, sometimes gabbro; often on clay soils/ perennial rhizomatous herb/ Apr-Jun/ 33-2690 | No                                                           | Not expected to occur.        | Although suitable vegetation and soils are present, the site is outside of the species' known elevation range. Additionally, there are no known occurrences within the vicinity <sup>2</sup> .                                 |
| <i>Carlwrightia arizonica</i><br>Arizona carlwrightia    | None/ None/ 2.3<br>/List B /MSCP                                                          | Sonoran desert scrub(sandy, granitic alluvium)/ perennial deciduous shrub/ Mar-May/ 935-1411                                                                                                                          | No                                                           | Not expected to occur.        | Species is known to occur within the vicinity <sup>2</sup> and suitable vegetation and soils are present; however, the site is located outside of the species' known elevation range.                                          |
| <i>Ceanothus cyaneus</i><br>Lakeside ceanothus           | None/ None/ 1B.2<br>/List A /MSCP                                                         | Closed-cone coniferous forest, Chaparral/ perennial evergreen shrub/ Apr-Jun/ 771-2477                                                                                                                                | No                                                           | Not expected to occur.        | Although suitable vegetation is present, the site is outside of the species' known elevation range. Additionally, the species is not known to occur within the vicinity <sup>2</sup> .                                         |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                  | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                            | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Ceanothus verrucosus</i><br>wart-stemmed<br>ceanothus                        | None/ None/ 2.3<br>/List B                                                                | Chaparral/ perennial evergreen shrub/<br>Dec-May/ 3-1247                                                                                    | No                                                           | Not expected to<br>occur.     | Although suitable vegetation is present, the<br>site is outside of the species' known<br>elevation range. Additionally, the species is<br>not known to occur within the vicinity <sup>2</sup> .                                    |
| <i>Centromadia parryi</i><br>ssp. <i>australis</i><br>southern tarplant         | None/ None/ 1B.1<br>/List A                                                               | Marshes and swamps(margins), Valley<br>and foothill grassland(vernally mesic),<br>Vernal pools/ annual herb/ May-Nov/ 0-<br>1575            | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range. Species is not<br>known to occur within the vicinity <sup>2</sup> .                                         |
| <i>Centromadia pungens</i><br>ssp. <i>laevis</i><br>smooth tarplant             | None/ None/ 1B.1<br>/List A                                                               | Chenopod scrub, Meadows and seeps,<br>Playas, Riparian woodland, Valley and<br>foothill grassland/alkaline/ annual herb/<br>Apr-Sep/ 0-2100 | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range. Species is not<br>known to occur within the vicinity <sup>2</sup> .                                         |
| <i>Chaenactis carphoclinia</i> var.<br><i>peirsonii</i><br>Peirson's pincushion | None/ None/ 1B.3<br>/List A                                                               | Sonoran desert scrub(sandy)/ annual herb/<br>Mar-Apr/ 10-1640                                                                               | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present;<br>however, the site is located outside of the<br>species' known elevation range. Species is<br>not known to occur within the vicinity <sup>2</sup> .                                   |
| <i>Chaenactis glabriuscula</i> var.<br><i>orcuttiana</i><br>Orcutt's pincushion | None/ None/ 1B.1<br>/List A                                                               | Coastal bluff scrub(sandy), Coastal dunes/<br>annual herb/ Jan-Aug/ 0-328                                                                   | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range. Species is not<br>known to occur within the vicinity <sup>2</sup> .                                         |
| <i>Chaenactis parishii</i><br>Parish's chaenactis                               | None/ None/ 1B.3<br>/List A /MSCP                                                         | Chaparral(rocky)/ perennial herb/ May-Jul/<br>4265-8202                                                                                     | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present;<br>however, the site is located outside of the<br>species' known elevation range. Species is<br>not known to occur within the vicinity <sup>2</sup> .                                   |
| <i>Chamaebatia australis</i><br>southern mountain<br>misery                     | None/ None/ 4.2<br>/List D /MSCP                                                          | Chaparral(gabbroic or metavolcanic)/<br>perennial evergreen shrub/ Nov-May/ 984-<br>3346                                                    | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation (semi-desert chaparral)<br>and soils are present, species is not known<br>to occur within the vicinity <sup>2</sup> . |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                      | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                       | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Chamaesyce<br/>abramsiana</i><br>Abrams' spurge                                  | None/ None/ 2.3<br>/None                                                                  | Mojavean desert scrub, Sonoran desert<br>scrub/sandy/ annual herb/ (Aug),Sep-Nov/<br>16-3002                           | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present and the<br>species is known to occur within the<br>vicinity <sup>2</sup> ; however, the project site is located<br>outside of the species' known elevation<br>range.                                                                                                      |
| <i>Chamaesyce<br/>arizonica</i> (Euphorbia<br>arizonica)<br>Arizona spurge          | None/ None/ 2.3<br>/List B                                                                | Sonoran desert scrub(sandy)/ perennial<br>herb/ Mar-Apr/ 164-984                                                       | No                                                           | Not expected to<br>occur.     | Suitable habitat and soils exist and the<br>species is known to occur within the vicinity <sup>2</sup> ;<br>however, the project site is located outside<br>of the species' known elevation range.<br>Nearest known occurrence approximately<br>0.7 miles northeast of the project site<br>(CDFW 2014a). |
| <i>Chamaesyce<br/>platysperma</i><br>flat-seeded spurge                             | None/ None/ 1B.2<br>/List A                                                               | Desert dunes, Sonoran desert<br>scrub(sandy)/ annual herb/ Feb-Sep/ 213-<br>328                                        | No                                                           | Not expected to<br>occur.     | Suitable habitat and soils are present;<br>however, the project site is located outside<br>of the species' known elevation range and<br>the species is not known to occur within the<br>vicinity <sup>2</sup> .                                                                                          |
| <i>Chamaesyce revoluta</i><br>revolute spurge                                       | None/ None/ 4.3<br>/List D                                                                | Mojavean desert scrub(rocky)/ annual<br>herb/ Aug-Sep/ 3593-10171                                                      | No                                                           | Not expected to<br>occur.     | The project site is located outside of the<br>species' known elevation range and the<br>species is not known to occur within the<br>vicinity <sup>2</sup> .                                                                                                                                              |
| <i>Chloropyron<br/>maritimum</i> ssp.<br><i>maritimum</i><br>salt marsh bird's-beak | FE/ SE/ 1B.2 /List<br>A                                                                   | Coastal dunes, Marshes and<br>swamps(coastal salt)/ annual herb<br>hemiparasitic/ May-Oct/ 0-98                        | No                                                           | Not expected to<br>occur.     | The project site is located outside of the<br>species' known elevation range, there is no<br>suitable vegetation present and the species<br>is not known to occur within the vicinity <sup>2</sup> .                                                                                                     |
| <i>Chorizanthe<br/>leptotheca</i><br>Peninsular<br>spineflower                      | None/ None/ 4.2<br>/List D                                                                | Chaparral, Coastal scrub, Lower montane<br>coniferous forest/alluvial fan, granitic/<br>annual herb/ May-Aug/ 984-6234 | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation (semi-desert chaparral)<br>and soils are present, species is not known<br>to occur within the vicinity <sup>2</sup> .                                                                       |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                              | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                             | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Chorizanthe<br/>orcuttiana</i><br>Orcutt's spineflower                                   | FE/ SE/ 1B.1 /List<br>A                                                                   | Closed-cone coniferous forest,<br>Chaparral(maritime), Coastal scrub/sandy<br>openings/ annual herb/ Mar-May/ 10-410                         | No                                                           | Not expected to<br>occur.     | Suitable soils are present; however, the<br>project site is located outside of the species'<br>known elevation range and the site lacks<br>maritime chaparral. Additionally, the species<br>is not known to occur within the vicinity <sup>2</sup> .                                                                                                 |
| <i>Chorizanthe parryi</i><br>var. <i>fernandina</i><br>San Fernando Valley<br>spineflower   | FC/ SE/ 1B.1 /List<br>A                                                                   | Coastal scrub(sandy), Valley and foothill<br>grassland/ annual herb/ Apr-Jul/ 492-4003                                                       | No                                                           | Not expected to<br>occur      | Although the project is located within the<br>species' known elevation range, there is no<br>suitable vegetation present and the species<br>not known to occur within the vicinity <sup>2</sup> . This<br>species is known from two localities;<br>southeastern Ventura County and within<br>southwestern Los Angeles County (77 FR<br>70103-70162). |
| <i>Chorizanthe<br/>polygonoides</i> var.<br><i>longispina</i><br>long-spined<br>spineflower | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral, Coastal scrub, Meadows and<br>seeps, Valley and foothill grassland, Vernal<br>pools/often clay/ annual herb/ Apr-Jul/ 98-<br>5020 | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation and soils are present,<br>species is not known to occur within the<br>vicinity <sup>2</sup> and site lacks suitable vernal pools.                                                                                                       |
| <i>Cistanthe maritima</i><br>seaside cistanthe                                              | None/ None/ 4.2<br>/List D                                                                | Coastal bluff scrub, Coastal scrub, Valley<br>and foothill grassland/sandy/ annual herb/<br>(Feb),Mar-Jun(Aug),/ 16-984                      | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range. Species is not<br>known to occur within the vicinity <sup>2</sup> .                                                                                                                                                           |
| <i>Clarkia delicata</i><br>delicate clarkia                                                 | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral, Cismontane woodland/often<br>gabbroic/ annual herb/ Apr-Jun/ 771-3281                                                             | No                                                           | Low potential to<br>occur.    | Suitable vegetation is present, the project<br>site is located within the species' known<br>elevation range and the species is known to<br>occur within the vicinity <sup>2</sup> ; however, the<br>nearest known occurrence is approximately<br>15 miles northwest of the project (CDFW<br>2014a).                                                  |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                               | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                    | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Clinopodium<br/>chandleri</i><br>San Miguel savory                                        | None/ None/ 1B.2<br>/List A                                                               | Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland/Rocky, gabbroic or metavolcanic/ perennial shrub/ Mar-Jul/ 394-3527 | No                                                           | Low potential to occur.       | Although the project site is located within the species' known elevation range and suitable vegetation (semi-desert chaparral) and soils are present, species is not known to occur within the vicinity <sup>2</sup> . |
| <i>Colubrina californica</i><br>Las Animas colubrina                                         | None/ None/ 2.3<br>/List B                                                                | Mojavean desert scrub, Sonoran desert scrub/ perennial deciduous shrub/ Apr-Jun/ 33-3281                                                                            | No                                                           | Low potential to occur.       | Although the project site is located within the species' known elevation range and suitable vegetation (semi-desert chaparral) is present, species is not known to occur within the vicinity <sup>2</sup> .            |
| <i>Comarostaphylis<br/>diversifolia</i> ssp.<br><i>diversifolia</i><br>summer holly          | None/ None/ 1B.2<br>/List A                                                               | Chaparral, Cismontane woodland/<br>perennial evergreen shrub/ Apr-Jun/ 98-2592                                                                                      | No                                                           | Not expected to occur.        | Although suitable vegetation is present, the project site is located outside of the species' known elevation range. Additionally, species is not known to occur within the vicinity <sup>2</sup> .                     |
| <i>Convolvulus simulans</i><br>small-flowered<br>morning-glory                               | None/ None/ 4.2<br>/List D                                                                | Chaparral(openings), Coastal scrub, Valley and foothill grassland/clay, serpentinite seeps/ annual herb/ Mar-Jul/ 98-2297                                           | No                                                           | Not expected to occur.        | Although suitable vegetation and soils are present, the project site is located outside of the species' known elevation range. . Additionally, species is not known to occur within the vicinity <sup>2</sup> .        |
| <i>Corethrogyne<br/>filaginifolia</i> var. <i>incana</i><br>San Diego sand aster             | None/None/1B.1<br>/List A                                                                 | Coastal bluff scrub, chaparral, coastal scrub/perennial herb/Jun-Sept/ 10-377                                                                                       | No                                                           | Not expected to occur.        | Although suitable vegetation is present, the project site is located outside of the species' known elevation range. Additionally, species is not known to occur within the vicinity <sup>2</sup> .                     |
| <i>Corethrogyne<br/>filaginifolia</i> var.<br><i>linifolia</i><br>Del Mar Mesa sand<br>aster | None/ None/ 1B.1<br>/List A                                                               | Coastal bluff scrub, Chaparral(maritime, openings), Coastal scrub/sandy/ perennial herb/ May-Sep/ 49-492                                                            | No                                                           | Not expected to occur.        | No suitable vegetation is present and the project site is located outside of the species' known elevation range. Additionally, species is not known to occur within the vicinity <sup>2</sup> .                        |
| <i>Cryptantha costata</i><br>ribbed cryptantha                                               | None/ None/ 4.3<br>/List D /MSCP                                                          | Desert dunes, Mojavean desert scrub, Sonoran desert scrub/sandy/ annual herb/                                                                                       | No                                                           | Not expected to occur.        | Although suitable vegetation is present, the project site is located outside of the species'                                                                                                                           |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                            | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet) | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                           |                                                                                           | Feb-May/ 197-1640                                                                |                                                              |                               | known elevation range. Additionally, species is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                                                                                                                 |
| <i>Cryptantha ganderi</i><br>Gander's cryptantha                          | None/ None/ 1B.1<br>/List A /MSCP                                                         | Desert dunes, Sonoran desert scrub(sandy)/ annual herb/ Feb-May/ 525-1312        | No                                                           | Not expected to occur.        | Although suitable vegetation is present, the project site is located outside of the species' known elevation range. Additionally, species is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                    |
| <i>Cryptantha holoptera</i><br>winged cryptantha                          | None/ None/ 4.3<br>/List D                                                                | Mojavean desert scrub, Sonoran desert scrub/ annual herb/ Mar-Apr/ 328-5545      | No                                                           | Low potential to occur.       | Although the project site is located within the species' known elevation range and suitable vegetation is present, species not known to occur within the vicinity <sup>2</sup> . Closest occurrence is approximately 11 miles east of the project site (Jepson eFlora 2014).                                                                                                                                                                          |
| <i>Cylindropuntia californica</i> var. <i>californica</i><br>snake cholla | None/ None/ 1B.1<br>/List A                                                               | Chaparral, Coastal scrub/ perennial stem succulent/ Apr-May/ 98-492              | No                                                           | Not expected to occur.        | Although suitable vegetation is present, the project site is located outside of the species' known elevation range. Additionally, species is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                    |
| <i>Cylindropuntia fosbergii</i><br>pink teddy-bear cholla                 | None/ None/ 1B.3<br>/None /MSCP                                                           | Sonoran desert scrub/ perennial stem succulent/ Mar-May/ 279-2789                | No                                                           | Not expected to occur.        | Suitable vegetation is present and the species is known to occur within the vicinity <sup>2</sup> ; however, the project site is located outside of the species' known elevation range.                                                                                                                                                                                                                                                               |
| <i>Cylindropuntia wolfii</i><br>Wolf's cholla                             | None/ None/ 4.3<br>/List D /MSCP                                                          | Sonoran desert scrub/ perennial stem succulent/ Mar-May/ 328-3937                | No                                                           | Low potential to occur.       | The project site is located within the species' known elevation range, suitable vegetation and soils are present and the species is known to occur within the vicinity <sup>2</sup> with multiple occurrences approximately 2 miles northeast of the project site (Jepson eFlora 2014; SDNHM 2014a). However, due to the limited amount of suitable habitat present on site (3.23 acres), there is a low potential for this species to occur on site. |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                               | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                           | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Deinandra conjugens</i><br>Otay tarplant                                  | FT/ SE/ 1B.1 /List<br>A                                                                   | Coastal scrub, Valley and foothill<br>grassland/clay/ annual herb/ May-Jun/ 82-<br>984                                                     | No                                                           | Not expected to<br>occur.     | The project site is located outside of the<br>species' known elevation range, no suitable<br>vegetation is present, and the species is not<br>known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                              |
| <i>Deinandra<br/>mohavensis</i><br>Mojave tarplant                           | None/ SE/ 1B.3<br>/List A /MSCP                                                           | Chaparral, Coastal scrub, Riparian<br>scrub/mesic/ annual herb/ (May),Jun-<br>Oct(Jan),/ 2100-5249                                         | No                                                           | Not expected to<br>occur.     | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation (semi-desert chaparral)<br>is present, species is not known to occur<br>within the vicinity <sup>2</sup> . Mesic soils are also<br>absent from the project site and the nearest<br>known occurrence is approximately 58 miles<br>northwest of the project site. |
| <i>Deinandra paniculata</i><br>paniculate tarplant                           | None/ None/ 4.2<br>/List D                                                                | Coastal scrub, Valley and foothill<br>grassland, Vernal pools/usually vernal<br>mesic, sometimes sandy/ annual herb/<br>Apr-Nov/ 82-3084   | No                                                           | Not expected to<br>occur      | The project site is located slightly above the<br>species' known elevation range, no suitable<br>vegetation or soils are present on site and<br>the species not known to occur within the<br>vicinity <sup>2</sup> . Mesic soils and vernal pools are<br>also absent from the project site.                                                                                  |
| <i>Delphinium<br/>hesperium</i> ssp.<br><i>cuyamaca</i><br>Cuyamaca larkspur | None/ SR/ 1B.2<br>/List A                                                                 | Lower montane coniferous forest,<br>Meadows and seeps, Vernal pools/mesic/<br>perennial herb/ May-Jul/ 4003-5351                           | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present; the<br>project site is located outside of the species'<br>known elevation range and species is not<br>known to occur within the vicinity <sup>2</sup>                                                                                                                                                                                     |
| <i>Dichondra<br/>occidentalis</i><br>western dichondra                       | None/ None/ 4.2<br>/List D                                                                | Chaparral, Cismontane woodland, Coastal<br>scrub, Valley and foothill grassland/<br>perennial rhizomatous herb/ (Jan),Mar-Jul/<br>164-1640 | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                         |
| <i>Dicranostegia<br/>orcuttiana</i><br>Orcutt's bird's-beak                  | None/ None/ 2.3<br>/List B                                                                | Coastal scrub/ annual herb hemiparasitic/<br>(Mar),Apr-Jul(Sep),/ 33-1148                                                                  | No                                                           | Not expected to<br>occur.     | The project site is located outside of the<br>species' known elevation range, species is<br>not known to occur within the vicinity <sup>2</sup> and<br>there is no suitable vegetation present.                                                                                                                                                                              |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                 | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                          | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                    |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Dieteria asteroides</i><br>var. <i>lagunensis</i><br>Mount Laguna aster     | None/ SR/ 2.3<br>/List B                                                                  | Cismontane woodland, Lower montane<br>coniferous forest/ perennial herb/ Jul-Aug/<br>2625-7874                                                            | No                                                           | Not expected to<br>occur.     | Although the project site is located within<br>the species' known elevation range and the<br>species is known to occur within the<br>vicinity <sup>2</sup> , there is no suitable vegetation<br>present.           |
| <i>Ditaxis serrata</i> var.<br><i>californica</i><br>California ditaxis        | None/ None/ 3.2<br>/List C                                                                | Sonoran desert scrub/ perennial herb/ Mar-<br>Dec/ 98-3281                                                                                                | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation is present; however, the<br>species is not known to occur within the<br>vicinity <sup>2</sup> .       |
| <i>Downingia concolor</i><br>var. <i>brevior</i><br>Cuyamaca Lake<br>downingia | None/ SE/ 1B.1<br>/List A /MSCP                                                           | Meadows and seeps(vernally mesic),<br>Vernal pools/ annual herb/ May-Jul/ 4528-<br>4921                                                                   | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range. Species is not<br>known to occur within the vicinity <sup>2</sup> .                         |
| <i>Dudleya alainae</i><br>Banner dudleya                                       | None/ None/ 3.2<br>/List C                                                                | Chaparral, Lower montane coniferous<br>forest, Sonoran desert scrub/rocky/<br>perennial herb/ Apr-Jul/ 2428-3937                                          | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation and soils are present,<br>species is not known to occur within the<br>vicinity <sup>2</sup> .         |
| <i>Dudleya attenuata</i><br>ssp. <i>attenuata</i><br>Orcutt's dudleya          | None/ None/ 2.3<br>/List B                                                                | Coastal bluff scrub, Chaparral, Coastal<br>scrub/rocky or gravelly/ perennial herb/<br>May-Jul/ 10-164                                                    | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present;<br>however, the site is located outside of the<br>species' known elevation range and the<br>species is not known to occur within the<br>vicinity <sup>2</sup> .         |
| <i>Dudleya blochmaniae</i><br>ssp. <i>blochmaniae</i><br>Blochman's dudleya    | None/ None/ 1B.1<br>/List A                                                               | Coastal bluff scrub, Chaparral, Coastal<br>scrub, Valley and foothill grassland/rocky,<br>often clay or serpentinite/ perennial herb/<br>Apr-Jun/ 16-1476 | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present;<br>however, the project site is located outside<br>of the species' known elevation range and<br>the species is not known to occur within the<br>vicinity <sup>2</sup> . |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                          | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Dudleya brevifolia</i><br>short-leaved dudleya                                       | None/ SE/ 1B.1<br>/List A                                                                 | Chaparral(maritime, openings), Coastal scrub/Torrey sandstone/ perennial herb/ Apr-May/ 98-820                                                  | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .                     |
| <i>Dudleya multicaulis</i><br>many-stemmed dudleya                                      | None/ None/ 1B.2<br>/List A                                                               | Chaparral, Coastal scrub, Valley and foothill grassland/often clay/ perennial herb/ Apr-Jul/ 49-2592                                            | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .                     |
| <i>Dudleya variegata</i><br>variegated dudleya                                          | None/ None/ 1B.2<br>/List A                                                               | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools/clay/ perennial herb/ Apr-Jun/ 10-1903               | No                                                           | Not expected to occur.        | Suitable chaparral is present; however, the project site is located outside of the species' known elevation range, lacks vernal pools, and the species is not known to occur within the vicinity <sup>2</sup> . |
| <i>Dudleya viscida</i><br>sticky dudleya                                                | None/ None/ 1B.2<br>/List A /MSCP                                                         | Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub/rocky/ perennial herb/ May-Jun/ 33-1804                                      | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .                     |
| <i>Ericameria cuneata</i><br>var. <i>macrocephala</i><br>Laguna Mountains<br>goldenbush | None/ None/ 1B.3<br>/List A /MSCP                                                         | Chaparral(granitic)/ perennial shrub/ Sep-Dec/ 3921-6070                                                                                        | No                                                           | Not expected to occur.        | Suitable vegetation and soils are present; however, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .          |
| <i>Ericameria palmeri</i><br>var. <i>palmeri</i><br>Palmer's goldenbush                 | None/ None/ 1B.1<br>/List B /MSCP                                                         | Chaparral, Coastal scrub/mesic/ perennial evergreen shrub/ (Jul),Sep-Nov/ 98-1969                                                               | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .                     |
| <i>Eriogonum evanidum</i><br>vanishing wild<br>buckwheat                                | None/ None/ 1B.1<br>/List A                                                               | Chaparral, Cismontane woodland, Lower montane coniferous forest, Pinyon and juniper woodland/sandy or gravelly/ annual herb/ Jul-Oct/ 3609-7300 | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .                     |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                     | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                            | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Eryngium aristulatum</i><br>var. <i>parishii</i><br>San Diego button-<br>celery | FE/ SE/ 1B.1 /List<br>A                                                                   | Coastal scrub, Valley and foothill<br>grassland, Vernal pools/mesic/<br>annual/perennial herb/ Apr-Jun/ 66-2034                                             | No                                                           | Not expected to<br>occur.     | Species is known to occur approximately<br>3.5 miles northeast of project site (CDFW<br>2014); however, the project site is located<br>outside of the species' known elevation<br>range and lacks suitable vegetation and<br>vernal pools. |
| <i>Eryngium</i><br><i>pendletonense</i><br>Pendleton button-<br>celery             | None/ None/ 1B.1<br>/List A                                                               | Coastal bluff scrub, Valley and foothill<br>grassland, Vernal pools/clay, vernal<br>mesic/ perennial herb/ Apr-Jun(Jul),/ 49-<br>361                        | No                                                           | Not expected to<br>occur.     | No suitable vegetation or vernal pools are<br>present, the project site is located outside of the<br>species' known elevation range and the species<br>is not known to occur within the vicinity <sup>2</sup> .                            |
| <i>Eucnide rupestris</i><br>annual rock-nettle                                     | None/ None/ 2.3<br>/List B                                                                | Sonoran desert scrub/ annual herb/ Dec-<br>Apr/ 1640-1969                                                                                                   | No                                                           | Not expected to<br>occur.     | Suitable habitats are present; however, the<br>project site is located outside of the species'<br>known elevation range.                                                                                                                   |
| <i>Euphorbia misera</i><br>cliff spurge                                            | None/ None/ 2.3<br>/List B                                                                | Coastal bluff scrub, Coastal scrub,<br>Mojavean desert scrub/rocky/ perennial<br>shrub/ Dec-Aug(Oct),/ 33-1640                                              | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                             |
| <i>Ferocactus</i><br><i>viridescens</i><br>San Diego barrel<br>cactus              | None/ None/ 2.3<br>/List B                                                                | Chaparral, Coastal scrub, Valley and<br>foothill grassland, Vernal pools/ perennial<br>stem succulent/ May-Jun/ 10-1476                                     | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however,<br>vernal pools are absent, the project site is<br>located outside of the species' known<br>elevation range, and the species is not<br>known to occur within the vicinity <sup>2</sup> .          |
| <i>Frankenia palmeri</i><br>Palmer's frankenia                                     | None/ None/ 2.3<br>/List B                                                                | Coastal dunes, Marshes and<br>swamps(coastal salt), Playas/ perennial<br>herb/ May-Jul/ 0-33                                                                | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                             |
| <i>Fremontodendron</i><br><i>mexicanum</i><br>Mexican flannelbush                  | FE/ SR/ 1B.1 /List<br>A                                                                   | Closed-cone coniferous forest, Chaparral,<br>Cismontane woodland/gabbroic,<br>metavolcanic, or serpentinite/ perennial<br>evergreen shrub/ Mar-Jun/ 33-2349 | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                       |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                             | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                         | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Fritillaria biflora</i><br>chocolate lily                                               | None/None/ None<br>/List D                                                                | Valley grassland, foothill woodland/<br>perennial herb/Mar-Apr/ 0 -3937                                                                  | No                                                           | Not expected to<br>occur      | Although the project site is located within<br>the species' known elevation range, there is<br>no suitable vegetation present on site and<br>the species is not known to occur within the<br>vicinity <sup>2</sup> . |
| <i>Funastrum utahense</i><br>Utah vine milkweed                                            | None/ None/ 4.2<br>/List D                                                                | Mojavean desert scrub, Sonoran desert<br>scrub/sandy or gravelly/ perennial herb/<br>(Mar),Apr-Jun(Sep),(Oct),/ 328-4708                 | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation and soils are present,<br>species is not known to occur within the<br>vicinity <sup>2</sup> .           |
| <i>Galium angustifolium</i><br>ssp. <i>borregoense</i><br>Borrego bedstraw                 | None/ SR/ 1B.3<br>/List A /MSCP                                                           | Sonoran desert scrub(rocky)/ perennial<br>herb/ Mar/ 1148-4101                                                                           | No                                                           | Low potential to<br>occur.    | The project site is located within the<br>species' known elevation range and there<br>are suitable soils and vegetation present;<br>however, the species is not known to occur<br>within the vicinity <sup>2</sup> . |
| <i>Galium angustifolium</i><br>ssp. <i>jacinticum</i><br>San Jacinto<br>Mountains bedstraw | None/ None/ 1B.3<br>/List A                                                               | Lower montane coniferous forest/<br>perennial herb/ Jun-Aug/ 4429-6890                                                                   | No                                                           | Not expected to<br>occur.     | This species is known to occur within the<br>vicinity <sup>2</sup> ; however, the project site is located<br>outside of the species' known elevation<br>range and no suitable vegetation is present.                 |
| <i>Grindelia hallii</i><br>San Diego gumplant                                              | None/ None/ 1B.2<br>/List A                                                               | Chaparral, Lower montane coniferous<br>forest, Meadows and seeps, Valley and<br>foothill grassland/ perennial herb/ May-Oct/<br>607-5725 | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation is present, species is not<br>known to occur within the vicinity <sup>2</sup> .                         |
| <i>Galium johnstonii</i><br>Johnston's bedstraw                                            | None/ None/ 4.3<br>/List D                                                                | Chaparral, Lower montane coniferous<br>forest, Pinyon and juniper woodland,<br>Riparian woodland/ perennial herb/ Jun-<br>Jul/ 4003-7546 | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present and the<br>species is known to occur within the<br>vicinity <sup>2</sup> ; however, the project site is located<br>outside of the species' known elevation<br>range.                  |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                                    | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                          | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Githopsis diffusa</i> ssp.<br><i>filicaulis</i><br>Mission Canyon<br>bluecup                   | None/ None/ 3.1<br>/List C                                                                | Chaparral(mesic, disturbed areas)/ annual<br>herb/ Apr-Jun/ 1476-2297                                                                     | No                                                           | Not expected to<br>occur.     | The site lacks suitable mesic chaparral, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                                                                                                                            |
| <i>Hazardia orcuttii</i><br>Orcutt's hazardia                                                     | FC/ ST/ 1B.1 /List<br>A                                                                   | Chaparral(maritime), Coastal scrub/often<br>clay/ perennial evergreen shrub/ Aug-Oct/<br>262-279                                          | No                                                           | Not expected to<br>occur.     | The site lacks suitable maritime chaparral,<br>the project site is located outside of the<br>species' known elevation range and the<br>species is not known to occur within the<br>vicinity <sup>2</sup> .                                                                                                                                      |
| <i>Herissantia crispa</i><br>curly herissantia                                                    | None/ None/ 2.3<br>/List B                                                                | Sonoran desert scrub/ annual/perennial<br>herb/ (Apr),Aug-Sep/ 2297-2379                                                                  | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present and the<br>species is known to occur within the vicinity <sup>2</sup> ;<br>however, the project site is located outside<br>of the species' known elevation range. One<br>known occurrence approximately 2.3 miles<br>northeast of the project site (CDFW 2014a).<br>No additional known occurrences in vicinity. |
| <i>Hesperocyparis<br/>forbesii</i><br>Tecate cypress                                              | None/ None/ 1B.1<br>/List A /MSCP                                                         | Closed-cone coniferous forest,<br>Chaparral/clay, gabbroic or metavolcanic/<br>perennial evergreen tree/ NA/ 262-4921                     | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation and soils are present,<br>species is not known to occur within the<br>vicinity <sup>2</sup> .                                                                                                                                      |
| <i>Hesperocyparis<br/>stephensonii</i><br>Cuyamaca cypress                                        | None/ None/ 1B.1<br>/List A                                                               | Closed-cone coniferous forest, Chaparral,<br>Cismontane woodland, Riparian<br>forest/gabbroic/ perennial evergreen tree/<br>NA/ 3396-5594 | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                                                                                                                            |
| <i>Heterotheca<br/>sessiliflora</i> ssp.<br><i>sanjacintensis</i><br>San Jacinto golden-<br>aster | None/None/1B.3<br>/List D                                                                 | Woodlands/1200-4560/unresolved in<br>Jepson                                                                                               | No                                                           | Not expected to<br>occur      | Although the project site is located within<br>the species' known elevation range, there is<br>no suitable vegetation present and species<br>is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                           |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                      | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Heuchera<br/>brevistaminea</i><br>Laguna Mountains<br>alumroot                   | None/ None/ 1B.3<br>/List A /MSCP                                                         | Broadleafed upland forest, Chaparral,<br>Cismontane woodland, Riparian<br>forest/rocky/ perennial rhizomatous herb/<br>Apr-Jul(Sep),/ 4495-6562 | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                          |
| <i>Heuchera rubescens</i><br>var. <i>versicolor</i><br>San Diego County<br>alumroot | None/ None/ 3.3<br>/List B                                                                | Chaparral, Lower montane coniferous<br>forest/rocky/ perennial rhizomatous herb/<br>May-Jun/ 4921-13123                                         | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however,<br>species is not known to occur within the<br>vicinity <sup>2</sup> and the project site is located<br>outside of the species' known elevation<br>range.                      |
| <i>Holocarpha virgata</i><br>ssp. <i>elongata</i><br>graceful tarplant              | None/ None/ 4.2<br>/List D /MSCP                                                          | Chaparral, Cismontane woodland, Coastal<br>scrub, Valley and foothill grassland/ annual<br>herb/ May-Nov/ 197-3609                              | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation is present, species is not<br>known to occur within the vicinity <sup>2</sup> .                            |
| <i>Hordeum intercedens</i><br>vernal barley                                         | None/ None/ 3.2<br>/List C                                                                | Coastal dunes, Coastal scrub, Valley and<br>foothill grassland(saline flats and<br>depressions), Vernal pools/ annual herb/<br>Mar-Jun/ 16-3281 | No                                                           | Not expected to<br>occur      | Although the project site is located within<br>the species' known elevation range, no<br>suitable vegetation or vernal pools are<br>present and the species is not known to<br>occur within the vicinity <sup>2</sup> . |
| <i>Horkelia cuneata</i> var.<br><i>puberula</i><br>mesa horkelia                    | None/ None/ 1B.1<br>/List A                                                               | Chaparral(maritime), Cismontane<br>woodland, Coastal scrub/sandy or gravelly/<br>perennial herb/ Feb-Jul(Sep),/ 230-2657                        | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                          |
| <i>Horkelia truncata</i><br>Ramona horkelia                                         | None/ None/ 1B.3<br>/List A /MSCP                                                         | Chaparral, Cismontane woodland/clay,<br>gabbroic/ perennial herb/ May-Jun/ 1312-<br>4265                                                        | No                                                           | Low potential to<br>occur.    | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation and soils are present,<br>species is not known to occur within<br>vicinity <sup>2</sup> .                  |
| <i>Horsfordia newberryi</i><br>Newberry's velvet-<br>mallow                         | None/ None/ 4.3<br>/List D                                                                | Sonoran desert scrub(rocky)/ perennial<br>shrub/ Feb-Dec/ 10-2625                                                                               | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present;<br>however, the project site is located outside<br>of the species' known elevation range.                                                                                    |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                               | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                          | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Hosackia crassifolia</i><br>var. <i>otayensis</i><br>Otay Mountain lotus  | None/ None/ 1B.1<br>/List A                                                               | Chaparral(metavolcanic, often in disturbed areas)/ perennial herb/ May-Aug/ 1247-3297                                                     | No                                                           | Low potential to occur.       | Although the project site is located within the species' known elevation range and suitable vegetation and soils are present species is not known to occur within the vicinity <sup>2</sup> .                                                                                            |
| <i>Hulsea californica</i><br>San Diego sunflower                             | None/ None/ 1B.3<br>/List A /MSCP                                                         | Chaparral, Lower montane coniferous forest, Upper montane coniferous forest/openings and burned areas/ perennial herb/ Apr-Jun/ 3002-9564 | No                                                           | Low potential to occur.       | The project site is located within the species' known elevation range, suitable vegetation is present, and the species is known to occur within the vicinity <sup>2</sup> ; however, the nearest known occurrence is approximately 17 miles northwest of the project site.               |
| <i>Hulsea mexicana</i><br>Mexican hulsea                                     | None/ None/ 2.3<br>/List B /MSCP                                                          | Chaparral(volcanic, often on burns or disturbed areas)/ annual/perennial herb/ Apr-Jun/ 3937-3937                                         | No                                                           | Not expected to occur.        | Suitable vegetation is present and the species is known to occur within the vicinity <sup>2</sup> ; however, the project site is located outside of the species' known elevation range. Nearest known occurrences are approximately 1.3 and 3.8 miles north of project site (CDFW 2014). |
| <i>Hulsea vestita</i> ssp.<br><i>callicarpa</i><br>beautiful hulsea          | None/ None/ 4.2<br>/List D                                                                | Chaparral, Lower montane coniferous forest/rocky or gravelly, granitic/ perennial herb/ May-Oct/ 3002-10007                               | No                                                           | Low potential to occur.       | Although the project site is located within the species' known elevation range and suitable vegetation and soils are present species is not known to occur within the vicinity <sup>2</sup> .                                                                                            |
| <i>Hymenothrix wrightii</i><br>Wright's hymenothrix                          | None/ None/ 4.3<br>/List D                                                                | Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland/ perennial herb/ Jun-Oct/ 4593-5085                   | No                                                           | Not expected to occur.        | The project site is located outside of the species' known elevation range, there is no suitable vegetation present and the species is not known to occur within the vicinity <sup>2</sup> .                                                                                              |
| <i>Isocoma menziesii</i><br>var. <i>decumbens</i><br>decumbent<br>goldenbush | None/ None/ 1B.2<br>/List A                                                               | Chaparral, Coastal scrub(sandy, often in disturbed areas)/ perennial shrub/ Apr-Nov/ 33-443                                               | No                                                           | Not expected to occur.        | Suitable vegetation and soils are present; however, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .                                                                                   |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                              | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                              | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Iva hayesiana</i><br>San Diego marsh-<br>elder                           | None/ None/ 2.3<br>/List B                                                                | Marshes and swamps, Playas/ perennial<br>herb/ Apr-Oct/ 33-1640                                                                                               | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range. Species is not<br>known to occur within the vicinity <sup>2</sup> .                                                                                                |
| <i>Juglans californica</i><br>Southern California<br>black walnut           | None/ None/ 4.2<br>/List D                                                                | Chaparral, Cismontane woodland, Coastal<br>scrub/alluvial/ perennial deciduous tree/<br>Mar-Aug/ 164-2953                                                     | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Species is not<br>known to occur within the vicinity <sup>2</sup> .                                                                                             |
| <i>Juncus acutus</i> ssp.<br><i>leopoldii</i><br>southwestern spiny<br>rush | None/ None/ 4.2<br>/List D                                                                | Coastal dunes(mesic), Meadows and<br>seeps(alkaline seeps), Marshes and<br>swamps(coastal salt)/ perennial<br>rhizomatous herb/ (Mar),May-Jun/ 10-2953        | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range.                                                                                                                                                                    |
| <i>Juncus cooperi</i><br>Cooper's rush                                      | None/ None/ 4.3<br>/List D                                                                | Meadows and seeps(mesic, alkaline or<br>saline)/ perennial herb/ Apr-May(Aug),/<br>853-5807                                                                   | No                                                           | Not expected to<br>occur      | Although the project site is located within<br>the species' known elevation range and the<br>species is known to occur within the vicinity <sup>2</sup><br>(SDNHM 2014a); no suitable vegetation or<br>soils are present on site.                                                         |
| <i>Lasthenia glabrata</i><br>ssp. <i>coulteri</i><br>Coulter's goldfields   | None/ None/ 1B.1<br>/List A                                                               | Marshes and swamps (coastal salt),<br>Playas, Vernal pools/ annual herb/ Feb-<br>Jun/ 3-4003                                                                  | No                                                           | Not expected to<br>occur      | No suitable vegetation present on site.<br>Species not known to occur within the<br>vicinity <sup>2</sup> .                                                                                                                                                                               |
| <i>Lepechinia</i><br><i>cardiophylla</i><br>heart-leaved pitcher<br>sage    | None/ None/ 1B.2<br>/List A                                                               | Closed-cone coniferous forest, Chaparral,<br>Cismontane woodland/ perennial shrub/<br>Apr-Jul/ 1706-4495                                                      | No                                                           | Not expected to<br>occur      | Although the project site is located within<br>the species' known elevation range and<br>chaparral vegetation is present, species not<br>known to occur from vicinity <sup>2</sup> . Nearest<br>known occurrence is approximately 53 miles<br>northwest of the project site (CDFW 2014a). |
| <i>Lepechinia ganderi</i><br>Gander's pitcher sage                          | None/ None/ 1B.3<br>/List A                                                               | Closed-cone coniferous forest, Chaparral,<br>Coastal scrub, Valley and foothill<br>grassland/Gabbroic or metavolcanic/<br>perennial shrub/ Jun-Jul/ 1001-3297 | No                                                           | Not expected to<br>occur.     | Although the project site is located within<br>the species' known elevation range and<br>suitable vegetation and soils are present,<br>species not known to occur from vicinity <sup>2</sup> .                                                                                            |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                                        | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)               | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                       |                                                                                           |                                                                                                |                                                              |                               | Nearest known occurrence is approximately 37 miles west of the project site (CDFW 2014a).                                                                                                                                                                                                          |
| <i>Lepidium flavum</i> var. <i>felipense</i><br>Borrego Valley<br>pepper-grass                        | None/ None/ 1B.2<br>/List A /MSCP                                                         | Pinyon and juniper woodland, Sonoran<br>desert scrub/sandy/ annual herb/ Mar-May/<br>1493-2756 | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, no<br>the project site is located outside of the<br>species' known elevation range and the<br>species is not known to occur within the<br>vicinity <sup>2</sup> .                                                                                         |
| <i>Lepidium virginicum</i><br>var. <i>robinsonii</i><br>Robinson's pepper-<br>grass                   | None/ None/ 4.3<br>/List A                                                                | Chaparral, Coastal scrub/ annual herb/<br>Jan-Jul/ 3-2904                                      | No                                                           | Not expected to<br>occur.     | Although suitable habitats are present and<br>species is known to occur within the<br>vicinity <sup>2</sup> , the project site is located outside of<br>the species' known elevation range.                                                                                                        |
| <i>Leptosiphon</i><br><i>floribundus</i> ssp. <i>hallii</i><br>Santa Rosa<br>Mountains<br>leptosiphon | None/ None/ 1B.3<br>/List A                                                               | Pinyon and juniper woodland, Sonoran<br>desert scrub/ perennial herb/ May-Jul/<br>3281-6562    | No                                                           | Not expected to<br>occur.     | Although suitable vegetation is present, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                                                                               |
| <i>Leptosyne maritima</i><br>sea dahlia                                                               | None/ None/ 2.3<br>/List B                                                                | Coastal bluff scrub, Coastal scrub/<br>perennial herb/ Mar-May/ 16-492                         | No                                                           | Not expected to<br>occur.     | The project site is located outside of the<br>species' known elevation range and there is<br>no suitable vegetation present. Species is<br>not known to occur within the vicinity <sup>2</sup> .                                                                                                   |
| <i>Lessingia glandulifera</i><br>var. <i>tomentosa</i><br>Warner Springs<br>lessingia                 | None/ None/ 1B.3<br>/List A /MSCP                                                         | Chaparral(sandy)/ annual herb/ Aug-Oct/<br>2854-4003                                           | No                                                           | Not expected to<br>occur.     | The project site is located within the<br>species' known elevation range and suitable<br>vegetation and soils are present; however,<br>species not known to occur from vicinity <sup>2</sup> .<br>Nearest known occurrence is approximately<br>46 miles north of the project site (CDFW<br>2014a). |
| <i>Lewisia brachycalyx</i><br>short-sepaled lewisia                                                   | None/ None/ 2.3<br>/List B /MSCP                                                          | Lower montane coniferous forest,<br>Meadows and seeps/mesic/ perennial                         | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'                                                                                                                                                                                                       |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                  | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                               | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                 |                                                                                           | herb/ Feb-Jun(Jul),/ 4495-7546                                                                                                                                 |                                                              |                               | known elevation range. Species is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                                                   |
| <i>Lilium humboldtii</i> ssp.<br><i>ocellatum</i><br>ocellated Humboldt<br>lily | None/ None/ 4.2<br>/List D /MSCP                                                          | Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland/openings/ perennial bulbiferous herb/ Mar-Jul(Aug),/ 98-5906 | No                                                           | Low potential to occur.       | The project site is located within the species' known elevation range and suitable vegetation is present; however, the species is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                   |
| <i>Lilium parryi</i><br>lemon lily                                              | None/ None/ 1B.2<br>/List A /MSCP                                                         | Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest/mesic/ perennial bulbiferous herb/ Jul-Aug/ 4003-9006     | No                                                           | Not expected to occur.        | No suitable vegetation is present and the project site is located outside of the species' known elevation range. Species is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                         |
| <i>Limnanthes alba</i> ssp.<br><i>parishii</i><br>Parish's meadowfoam           | None/ SE/ 1B.2<br>/List A                                                                 | Lower montane coniferous forest, Meadows and seeps, Vernal pools/vernally mesic/ annual herb/ Apr-Jun/ 1969-6562                                               | No                                                           | Not expected to occur.        | The project site is located within the species' known elevation range however, the species is not known to occur within the vicinity <sup>2</sup> and there is no suitable vegetation present.                                                                                                                                                                            |
| <i>Linanthus maculatus</i><br>Little San Bernardino<br>Mtns. linanthus          | None/ None/ 1B.2<br>/None                                                                 | Desert dunes, Joshua tree "woodland", Mojavean desert scrub, Sonoran desert scrub/sandy/ annual herb/ Mar-May/ 640-6808                                        | No                                                           | Low potential to occur.       | The project site is located within the species' known elevation range, suitable soils and vegetation present and the species is known to occur within the vicinity <sup>2</sup> . There are no occurrences known within San Diego County and only one occurrence is known within Imperial County which is approximately 7.5 miles north of the project site (CDFW 2014a). |
| <i>Linanthus orcuttii</i><br>Orcutt's linanthus                                 | None/ None/ 1B.3<br>/List A /MSCP                                                         | Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland/openings/ annual herb/ May-Jun/ 3002-7037                                              | No                                                           | Low potential to occur.       | The project site is located within the species' known elevation range and suitable vegetation is present; however, the species is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                   |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                       | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                          | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Lycium californicum</i><br>California box-thorn                   | None/ None/ 4.2<br>/List D                                                                | Coastal bluff scrub, Coastal scrub/<br>perennial shrub/ (Dec),Mar-Aug/ 16-492                                             | No                                                           | Not expected to<br>occur.     | Species not known to occur in the vicinity <sup>2</sup> of<br>the project. Additionally, the site is outside<br>of the species' known elevation range and<br>there is no suitable vegetation present.                                                                                                                                                                                                                                                |
| <i>Lycium parishii</i><br>Parish's desert-thorn                      | None/ None/ 2.3<br>/List B /MSCP                                                          | Coastal scrub, Sonoran desert scrub/<br>perennial shrub/ Mar-Apr/ 443-3281                                                | No                                                           | Low potential to<br>occur.    | The project site is located within the<br>species' known elevation range, suitable<br>vegetation and soils are present and the<br>species is known to occur within the<br>vicinity <sup>2</sup> . Nearest known occurrence is<br>approximately 5.5 miles northeast of the<br>project (CDFW 2014a). However, due to the<br>limited amount of suitable habitat on site<br>(3.23 acres), there is a low potential for this<br>species to occur on site. |
| <i>Lyrocarpa coulteri</i><br>Palmer's lyreped                        | None/ None/ 4.3<br>/List D                                                                | Sonoran desert scrub(gravelly or rocky)/<br>perennial herb/ Dec-Apr/ 394-2608                                             | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                                                                 |
| <i>Malacothamnus<br/>aboriginum</i><br>Indian Valley bush-<br>mallow | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral, Cismontane woodland/Rocky,<br>granitic, often in burned areas/ perennial<br>deciduous shrub/ Apr-Oct/ 492-5577 | No                                                           | Low potential to<br>occur.    | Suitable vegetation and soils are present<br>and the project site is located within the<br>species' known elevation range; however,<br>species not known to occur within the<br>vicinity <sup>2</sup> .                                                                                                                                                                                                                                              |
| <i>Malperia tenuis</i><br>brown turbans                              | None/ None/ 2.3<br>/List B                                                                | Sonoran desert scrub(sandy, gravelly)/<br>annual herb/ (Feb),Mar-Apr/ 49-1099                                             | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present<br>and the species is known to occur within the<br>vicinity <sup>2</sup> ; however, the project site is located<br>outside of the species' known elevation<br>range.                                                                                                                                                                                                                                       |
| <i>Matelea parvifolia</i><br>spearleaf                               | None/ None/ 2.3<br>/List B                                                                | Mojavean desert scrub, Sonoran desert<br>scrub/rocky/ perennial herb/ Mar-May/                                            | No                                                           | Low potential to<br>occur.    | Suitable vegetation and soils are present,<br>the project site is located within the species'                                                                                                                                                                                                                                                                                                                                                        |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                        | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                          | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                       |                                                                                           | 1444-3593                                                                                                                 |                                                              |                               | known elevation range and the species is known to occur approximately 3.7 miles northeast of the project site (CDFW 2014a); however, due to the limited amount of suitable desert scrub present, this species has a low potential to occur.                                                                                            |
| <i>Mentzelia hirsutissima</i><br>hairy stickleaf                                      | None/ None/ 2.3<br>/List B                                                                | Sonoran desert scrub(rocky)/ annual herb/<br>Mar-May/ 0-2297                                                              | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present and the species is known to occur within the vicinity <sup>2</sup> ; however, the project site is located outside of the species' known elevation range.                                                                                                                                     |
| <i>Mentzelia tricuspis</i><br>spiny-hair blazing star                                 | None/ None/ 2.3<br>/None                                                                  | Mojavean desert scrub/sandy, gravelly,<br>slopes, and washes/ annual herb/ Mar-<br>May/ 492-4199                          | No                                                           | Low potential to<br>occur.    | Suitable vegetation and soils are present, the project site is located within the species' known elevation range and the species is known to occur approximately 3.5 miles northeast of the project site (CDFW 2014a); however, due to the limited amount of suitable desert scrub present, this species has a low potential to occur. |
| <i>Mentzelia tridentata</i><br>creamy blazing star                                    | None/ None/ 1B.3<br>/None                                                                 | Mojavean desert scrub/rocky, gravelly,<br>sandy/ annual herb/ Mar-May/ 2297-3806                                          | No                                                           | Low potential to<br>occur.    | Suitable vegetation and soils are present and the project site is located within the species' known elevation range; however, the species is not known to occur within the vicinity <sup>2</sup> and there is a limited amount of suitable desert scrub present.                                                                       |
| <i>Microseris douglasii</i><br>ssp. <i>platycarpa</i><br>small-flowered<br>microseris | None/ None/ 4.2<br>/List D                                                                | Cismontane woodland, Coastal scrub,<br>Valley and foothill grassland, Vernal<br>pools/clay/ annual herb/ Mar-May/ 49-3510 | No                                                           | Not expected to<br>occur      | No suitable vegetation present. Additionally, species not known to occur within vicinity <sup>2</sup> .                                                                                                                                                                                                                                |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                                      | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Mimulus clevelandii</i><br>Cleveland's bush<br>monkeyflower                | None/ None/ 4.2<br>/List D /MSCP                                                          | Chaparral, Cismontane woodland, Lower<br>montane coniferous forest/Gabbroic, often<br>in disturbed areas, openings, rocky/<br>perennial rhizomatous herb/ Apr-Jul/ 1476-<br>6562      | No                                                           | Low potential to<br>occur.    | Although suitable vegetation, soils and<br>elevation is present, species not known to<br>occur in vicinity <sup>2</sup> .                                                                                                                                                                                 |
| <i>Mimulus diffusus</i><br>Palomar<br>monkeyflower                            | None/ None/ 4.3<br>/List D /MSCP                                                          | Chaparral, Lower montane coniferous<br>forest/sandy or gravelly/ annual herb/ Apr-<br>Jun/ 4003-6004                                                                                  | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present;<br>however, the project site is located outside of<br>the species' known elevation range and the<br>species is not known to occur within the<br>vicinity <sup>2</sup> .                                                                                        |
| <i>Mimulus latidens</i><br>Vernal pool<br>monkeyflower                        | None/None/<br>considered but<br>rejected /List A                                          | Valley grassland, foothill woodland,<br>wetland-riparian/ annual herb/ Apr-Jun/ 0-<br>8202                                                                                            | No                                                           | Not expected to<br>occur      | No suitable vegetation present and species not<br>known to occur in vicinity <sup>2</sup> of the project site.                                                                                                                                                                                            |
| <i>Mirabilis tenuiloba</i><br>slender-lobed four<br>o'clock                   | None/ None/ 4.3<br>/List D                                                                | Sonoran desert scrub/ perennial herb/<br>(Feb),Mar-May/ 984-3593                                                                                                                      | No                                                           | Low potential to<br>occur.    | Suitable vegetation is present, the project site<br>is located within the species' known elevation<br>range and the species is known to occur within<br>the vicinity <sup>2</sup> ; however, due to the limited<br>amount of suitable desert scrub present, this<br>species has a low potential to occur. |
| <i>Monardella hypoleuca</i><br>ssp. <i>lanata</i><br>felt-leaved monardella   | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral, Cismontane woodland/<br>perennial rhizomatous herb/ Jun-Aug/ 984-<br>5167                                                                                                  | No                                                           | Low potential to<br>occur.    | Although suitable vegetation is present,<br>species not known to occur in vicinity <sup>2</sup> of the<br>project site.                                                                                                                                                                                   |
| <i>Monardella</i><br><i>macrantha</i> ssp. <i>hallii</i><br>Hall's monardella | None/ None/ 1B.3<br>/List A                                                               | Broadleafed upland forest, Chaparral,<br>Cismontane woodland, Lower montane<br>coniferous forest, Valley and foothill<br>grassland/ perennial rhizomatous herb/<br>Jun-Oct/ 2395-7201 | No                                                           | Low potential to<br>occur.    | Suitable vegetation is present and the<br>project is located within the species' known<br>elevation range; however, species not<br>known to occur in vicinity <sup>2</sup> .                                                                                                                              |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                             | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Monardella nana</i> ssp.<br><i>leptosiphon</i><br>San Felipe monardella | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral, Lower montane coniferous forest/ perennial rhizomatous herb/ Jun-Jul/ 3937-6086                                                      | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, no the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> . |
| <i>Monardella stoneana</i><br>Jennifer's monardella                        | None/ None/ 1B.2<br>/List A                                                               | Closed-cone coniferous forest, Chaparral, Coastal scrub, Riparian scrub/usually rocky intermittent streambeds/ perennial herb/ Jun-Sep/ 33-2592 | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, no the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> . |
| <i>Monardella viminea</i><br>willow monardella                             | FE/ SE/ 1B.1 /List<br>A                                                                   | Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland/alluvial ephemeral washes/ perennial herb/ Jun-Aug/ 164-738        | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, no the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> . |
| <i>Mucronea californica</i><br>California spineflower                      | None/ None/ 4.2<br>/List D                                                                | Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland/sandy/ annual herb/ Mar-Jul(Aug),/ 0-4593           | No                                                           | Low potential to occur.       | Suitable vegetation is present and the project site is located within the species' known elevation range; however, species not known to occur within the vicinity <sup>2</sup> .               |
| <i>Myosurus minimus</i><br>ssp. <i>apus</i><br>little mouseltail           | None/ None/ 3.1<br>/List C                                                                | Valley and foothill grassland, Vernal pools(alkaline)/ annual herb/ Mar-Jun/ 66-2100                                                            | No                                                           | Not expected to occur.        | No suitable vegetation is present, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .          |
| <i>Nama stenocarpa</i><br>mud nama                                         | None/ None/ 2.3<br>/List B                                                                | Marshes and swamps(lake margins, riverbanks)/ annual/perennial herb/ Jan-Jul/ 16-1640                                                           | No                                                           | Not expected to occur.        | No suitable vegetation is present, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .          |
| <i>Nasturtium gambelii</i><br>Gambel's water cress                         | FE/ ST/ 1B.1 /List<br>A                                                                   | Marshes and swamps(freshwater or brackish)/ perennial rhizomatous herb/ Apr-Oct/ 16-1083                                                        | No                                                           | Not expected to occur.        | No suitable vegetation is present, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .          |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                            | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                     | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Navarretia fossalis</i><br>spreading navarretia                        | FT/ None/ 1B.1<br>/List A                                                                 | Chenopod scrub, Marshes and<br>swamps(assorted shallow freshwater),<br>Playas, Vernal pools/ annual herb/ Apr-<br>Jun/ 98-2149                       | No                                                           | Not expected to<br>occur.     | No suitable vegetation or vernal pools are<br>present, the project site is located outside of<br>the species' known elevation range and the<br>species is not known to occur within the<br>vicinity <sup>2</sup> .                                                                                                  |
| <i>Navarretia<br/>peninsularis</i><br>Baja navarretia                     | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral(openings), Lower montane<br>coniferous forest, Meadows and seeps,<br>Pinyon and juniper woodland/mesic/<br>annual herb/ Jun-Aug/ 4921-7546 | No                                                           | Not expected to<br>occur.     | Although suitable habitats are present, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                                                                                                 |
| <i>Navarretia prostrata</i><br>prostrate vernal pool<br>navarretia        | None/ None/ 1B.1<br>/List A                                                               | Coastal scrub, Meadows and seeps, Valley<br>and foothill grassland(alkaline), Vernal<br>pools/Mesic/ annual herb/ Apr-Jul/ 49-3970                   | No                                                           | Not expected to<br>occur      | No suitable vegetation, vernal pools, or<br>mesic conditions are present. Species is not<br>known to occur within vicinity <sup>2</sup> .                                                                                                                                                                           |
| <i>Nemacaulis denudata</i><br>var. <i>denudata</i><br>coast woolly-heads  | None/ None/ 1B.2<br>/List A                                                               | Coastal dunes/ annual herb/ Apr-Sep/ 0-<br>328                                                                                                       | No                                                           | Not expected to<br>occur.     | The project site is located outside of the<br>species' known elevation range, there is no<br>suitable vegetation present, and the species<br>is not known to occur within vicinity <sup>2</sup> .                                                                                                                   |
| <i>Nemacaulis denudata</i><br>var. <i>gracilis</i><br>slender cottonheads | None/ None/ 2.3<br>/List B                                                                | Coastal dunes, Desert dunes, Sonoran<br>desert scrub/ annual herb/ (Mar),Apr-May/<br>164-1312                                                        | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present and the<br>species is known to occur within the vicinity;<br>however, the project site is located outside<br>of the species' known elevation range.                                                                                                                                  |
| <i>Nolina cismontana</i><br>chaparral nolina                              | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral, Coastal scrub/sandstone or<br>gabbro/ perennial evergreen shrub/<br>(Mar),May-Jul/ 459-4183                                               | No                                                           | Not expected to<br>occur.     | The project site is located within the<br>species' known elevation range and suitable<br>soils and vegetation are present; however,<br>the species is not known to occur within the<br>vicinity <sup>2</sup> . Nearest known occurrence is<br>approximately 37 miles northwest of the<br>project site (CDFW 2014a). |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                           | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                     | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Nolina interrata</i><br>Dehesa nolina                                                 | None/ SE/ 1B.1<br>/List A                                                                 | Chaparral(gabbroic, metavolcanic, or<br>serpentine)/ perennial herb/ Jun-Jul/ 607-<br>2805                                           | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present;<br>however, the project site is located outside<br>of the species' known elevation range.<br>Additionally, species is not known to occur<br>within the vicinity <sup>2</sup> .            |
| <i>Ophioglossum<br/>californicum</i><br>California adder's-<br>tongue                    | None/ None/ 4.2<br>/List D                                                                | Chaparral, Valley and foothill grassland,<br>Vernal pools(margins)/mesic/ perennial<br>rhizomatous herb/ (Dec),Jan-Jun/ 197-<br>1722 | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>site lacks vernal pools, the project site is<br>located outside of the species' known<br>elevation range and the species is not<br>known to occur within the vicinity <sup>2</sup> . |
| <i>Opuntia wigginsii</i><br>( <i>Cylindropuntia<br/>echinocarpa</i> )<br>Wiggins' cholla | None/ None/ 3.3<br>/List C                                                                | Sonoran desert scrub(sandy)/ perennial<br>stem succulent/ Mar/ 98-2904                                                               | No                                                           | Not expected to<br>occur.     | Although suitable vegetation and soils are<br>present, the project site is located outside of<br>the species' known elevation range.                                                                                                 |
| <i>Orcuttia californica</i><br>California Orcutt<br>grass                                | FE/ SE/ 1B.1 /List<br>A                                                                   | Vernal pools/ annual herb/ Apr-Aug/ 49-<br>2165                                                                                      | No                                                           | Not expected to<br>occur.     | The project site is located outside of the<br>species' known elevation range and there<br>are no suitable vernal pools present.<br>Species is not known to occur within the<br>vicinity <sup>2</sup> .                               |
| <i>Ornithostaphylos<br/>oppositifolia</i><br>Baja California<br>birdbush                 | None/ SE/ 2.3<br>/List B                                                                  | Chaparral/ perennial evergreen shrub/ Jan-<br>Apr/ 180-2625                                                                          | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                 |
| <i>Orobanche parishii</i><br>ssp. <i>brachyloba</i><br>short-lobed<br>broomrape          | None/ None/ 4.2<br>/List D                                                                | Coastal bluff scrub, Coastal dunes,<br>Coastal scrub/sandy/ perennial herb<br>parasitic/ Apr-Oct/ 10-1001                            | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                       |
| <i>Packera ganderi</i><br>Gander's ragwort                                               | None/ SR/ 1B.2<br>/List A /MSCP                                                           | Chaparral(burns, gabbroic outcrops)/<br>perennial herb/ Apr-Jun/ 1312-3937                                                           | No                                                           | Not expected to<br>occur.     | The project site is located within the<br>species' known elevation range and suitable<br>soils and vegetation are present; however,                                                                                                  |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                               | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                 | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                          |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                              |                                                                                           |                                                                                                                                                                  |                                                              |                               | the species is not known to occur within the vicinity <sup>2</sup> . Nearest known occurrence is approximately 28 miles west of the project site (CDFW 2014a).                                                           |
| <i>Pectocarya peninsularis</i><br>Baja California bur-comb                   | None/None/ None<br>/List D                                                                | Sonoran desert; washes, roadsides, clearings/ annual herb/ Feb-Apr/ 98-984                                                                                       | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .                              |
| <i>Penstemon clevelandii</i> var. <i>connatus</i><br>San Jacinto beardtongue | None/ None/ 4.3<br>/List D                                                                | Chaparral, Pinyon and juniper woodland, Sonoran desert scrub/rocky/ perennial herb/ Mar-May/ 1312-4921                                                           | No                                                           | Low potential to occur.       | Suitable vegetation, soils, and elevation is present. However, closest occurrence approximately 12 miles northwest of the project site (Jepson eFlora 2014).                                                             |
| <i>Penstemon thurberi</i><br>Thurber's beardtongue                           | None/ None/ 4.2<br>/List D                                                                | Chaparral, Joshua tree "woodland", Pinyon and juniper woodland, Sonoran desert scrub/ perennial herb/ May-Jul/ 1640-4003                                         | No                                                           | Low potential to occur.       | Suitable vegetation is present and the project site is located within the species' known elevation range; however, the species is not known to occur within the vicinity <sup>2</sup> .                                  |
| <i>Pentachaeta aurea</i> ssp. <i>aurea</i><br>golden-rayed pentachaeta       | None/ None/ 4.2<br>/List D                                                                | Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/ annual herb/ Mar-Jul/ 262-6070 | No                                                           | Low potential to occur.       | Suitable vegetation is present and the project site is located within the species' known elevation range; however, the species is not known to occur within the vicinity <sup>2</sup> .                                  |
| <i>Perideridia gairdneri</i> ssp. <i>gairdneri</i><br>Gairdner's yampah      | None/ None/ 4.2<br>/List D                                                                | Broadleafed upland forest, Chaparral, Coastal prairie, Valley and foothill grassland, Vernal pools/vernally mesic/ perennial herb/ Jun-Oct/ 0-2001               | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, the site lacks vernal pools, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> . |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                            | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                    | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                              |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Phacelia nashiana</i><br>Charlotte's phacelia                          | None/ None/ 1B.2<br>/None /MSCP                                                           | Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland/usually granitic, sandy/ annual herb/ Mar-Jun/ 1969-7218 | No                                                           | Low potential to occur.       | Suitable vegetation is present and the project site is located within the species' known elevation range; however, the species is not known to occur within the vicinity <sup>2</sup> .      |
| <i>Phacelia stellaris</i><br>Brand's star phacelia                        | FC/ None/ 1B.1<br>/List A                                                                 | Coastal dunes, Coastal scrub/ annual herb/ Mar-Jun/ 3-1312                                                                          | No                                                           | Not expected to occur.        | The project site is located outside of the species' known elevation range, there is no suitable vegetation present and the species' is not known to occur within the vicinity <sup>2</sup> . |
| <i>Pholistoma auritum</i><br>var. <i>arizonicum</i><br>Arizona pholistoma | None/ None/ 2.3<br>/None /MSCP                                                            | Mojavean desert scrub/ annual herb/ Mar/ 902-2740                                                                                   | No                                                           | Not expected to occur.        | Although the species is known to occur within the vicinity <sup>2</sup> , the project site is located outside of the species' known elevation range.                                         |
| <i>Pilostyles thurberi</i><br>Thurber's pilostyles                        | None/ None/ 4.3<br>/List D                                                                | Sonoran desert scrub/ perennial herb parasitic/ Dec-Apr/ 0-1198                                                                     | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, the project site is located outside of the species' known elevation range.                                                                          |
| <i>Pinus torreyana</i> ssp. <i>torreyana</i><br>Torrey pine               | None/ None/ 1B.2<br>/List A                                                               | Closed-cone coniferous forest, Chaparral/Sandstone/ perennial evergreen tree/ NA/ 246-525                                           | No                                                           | Not expected to occur.        | Suitable vegetation is present; however, the project site is located outside of the species' known elevation range and the species is not known to occur within the vicinity <sup>2</sup> .  |
| <i>Piperia cooperi</i><br>chaparral rein orchid                           | None/ None/ 4.2<br>/List D /MSCP                                                          | Chaparral, Cismontane woodland, Valley and foothill grassland/ perennial herb/ Mar-Jun/ 49-5200                                     | No                                                           | Low potential to occur.       | The project site is located within the species' known elevation range and suitable vegetation is present; however, the species is not known to occur within the vicinity <sup>2</sup> .      |
| <i>Piperia leptopetala</i><br>narrow-petaled rein orchid                  | None/ None/ 4.3<br>/List D /MSCP                                                          | Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest/ perennial herb/ May-Jul/ 1247-7300           | No                                                           | Not expected to occur.        | No suitable vegetation present and species not known to occur in the vicinity <sup>2</sup> of the project site                                                                               |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                          | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                           | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Poa atropurpurea</i><br>San Bernardino blue<br>grass                 | FE/ None/ 1B.2<br>/List A /MSCP                                                           | Meadows and seeps(mesic)/ perennial<br>rhizomatous herb/ (Apr),May-Jul(Aug),/<br>4462-8054                 | No                                                           | Not expected to<br>occur.     | No suitable habitat is present, the project<br>site is located outside of the species' known<br>elevation range and the species is not<br>known to occur within the vicinity <sup>2</sup> .                    |
| <i>Pogogyne abramsii</i><br>San Diego mesa mint                         | FE/ SE/ 1B.1 /List<br>A                                                                   | Vernal pools/ annual herb/ Mar-Jul/ 295-<br>656                                                            | No                                                           | Not expected to<br>occur.     | The project site is located outside of the<br>species' known elevation range and there<br>are no suitable vernal pools present.<br>Species is not known to occur within the<br>vicinity <sup>2</sup> .         |
| <i>Pogogyne nudiuscula</i><br>Otay Mesa mint                            | FE/ SE/ 1B.1 /List<br>A                                                                   | Vernal pools/ annual herb/ May-Jul/ 295-<br>820                                                            | No                                                           | Not expected to<br>occur.     | The project site is located outside of the<br>species' known elevation range and there<br>are no suitable vernal pools present.<br>Species is not known to occur within the<br>vicinity <sup>2</sup> .         |
| <i>Polygala cornuta</i> var.<br><i>fishiae</i><br>Fish's milkwort       | None/ None/ 4.3<br>/List D                                                                | Chaparral, Cismontane woodland, Riparian<br>woodland/ perennial deciduous shrub/<br>May-Aug/ 328-3281      | No                                                           | Low potential to<br>occur.    | The project site is located within the<br>species' known elevation range and suitable<br>vegetation is present; however, the species<br>is not known to occur within the vicinity <sup>2</sup> .               |
| <i>Proboscidea</i><br><i>althaeifolia</i><br>desert unicorn-plant       | None/ None/ 4.3<br>/List D                                                                | Sonoran desert scrub(sandy)/ perennial<br>herb/ May-Aug(Sep),(Oct),/ 279-3281                              | No                                                           | Low potential to<br>occur.    | The project site is located within the<br>species' known elevation range and suitable<br>vegetation is present; however, the species<br>is not known to occur within the vicinity <sup>2</sup> .               |
| <i>Pseudorontium</i><br><i>cyathiferum</i><br>Deep Canyon<br>snapdragon | None/ None/ 2.3<br>/None                                                                  | Sonoran desert scrub(rocky)/ annual herb/<br>Feb-Apr/ 0-2625                                               | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present<br>and the species is known to occur within the<br>vicinity <sup>2</sup> ; however, the project site is located<br>outside of the species' known elevation<br>range. |
| <i>Quercus cedrosensis</i><br>Cedros Island oak                         | None/ None/ 2.3<br>/List B                                                                | Closed-cone coniferous forest, Chaparral,<br>Coastal scrub/ perennial evergreen tree/<br>Apr-May/ 837-3150 | No                                                           | Not expected to<br>occur.     | The project site is located within the<br>species' known elevation range and suitable<br>vegetation is present; however, the species                                                                           |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                    | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                        | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                             |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                   |                                                                                           |                                                                                                                                         |                                                              |                               | is not known to occur within the vicinity <sup>2</sup> .<br>Nearest known occurrence is approximately<br>33 miles west of the project site (CDFW<br>2014a).                                                 |
| <i>Quercus dumosa</i><br>Nuttall's scrub oak                                      | None/ None/ 1B.1<br>/List A                                                               | Closed-cone coniferous forest, Chaparral,<br>Coastal scrub/sandy, clay loam/ perennial<br>evergreen shrub/ Feb-Apr(Aug)/ 49-1312        | No                                                           | Not expected to<br>occur.     | Although suitable vegetation is present, the<br>project site is located outside of the species'<br>known elevation range.                                                                                   |
| <i>Quercus engelmannii</i><br>Engelmann oak                                       | None/ None/ 4.2<br>/List D /MSCP                                                          | Chaparral, Cismontane woodland, Riparian<br>woodland, Valley and foothill grassland/<br>perennial deciduous tree/ Mar-Jun/ 164-<br>4265 | No                                                           | Low potential to<br>occur.    | Although suitable vegetation and elevations<br>are present, species not known to occur in<br>vicinity <sup>2</sup> .                                                                                        |
| <i>Rhus aromatica</i> var.<br><i>simplicifolia</i><br>single-leaved<br>skunkbrush | None/ None/ 2.3<br>/List B                                                                | Pinyon and juniper woodland/Usually<br>granitic./ perennial deciduous shrub/ Mar-<br>Apr/ 4003-4495                                     | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range.                                                                                   |
| <i>Ribes canthariforme</i><br>Moreno currant                                      | None/ None/ 1B.3<br>/List A /MSCP                                                         | Chaparral, Riparian scrub/ perennial<br>deciduous shrub/ Feb-Apr/ 1115-3937                                                             | No                                                           | Low potential to<br>occur.    | Suitable vegetation is present and the<br>project is located within the species' known<br>elevation range; however, species is not<br>known to occur within the vicinity <sup>2</sup> .                     |
| <i>Ribes viburnifolium</i><br>Santa Catalina Island<br>currant                    | None/ None/ 1B.2<br>/List A                                                               | Chaparral, Cismontane woodland/<br>perennial evergreen shrub/ Feb-Apr/ 98-<br>1148                                                      | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Species is not<br>known to occur within the vicinity <sup>2</sup> .               |
| <i>Romneya coulteri</i><br>Coulter's matilija<br>poppy                            | None/ None/ 4.2<br>/List D                                                                | Chaparral, Coastal scrub/Often in burns/<br>perennial rhizomatous herb/ Mar-Jul/ 66-<br>3937                                            | No                                                           | Low potential to<br>occur.    | Although suitable vegetation and elevations<br>are present, species not known to occur in<br>vicinity <sup>2</sup> .                                                                                        |
| <i>Rosa minutifolia</i><br>small-leaved rose                                      | None/ SE/ 2.3<br>/List B                                                                  | Chaparral, Coastal scrub/ perennial<br>deciduous shrub/ Jan-Jun/ 492-525                                                                | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Additionally, species<br>is not known to occur within the vicinity <sup>2</sup> . |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                              | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                                 | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Rubus glaucifolius</i><br>var. <i>ganderi</i><br>Cuyamaca raspberry                      | None/ None/ 3.1<br>/List A /MSCP                                                          | Lower montane coniferous<br>forest(gabbroic)/ perennial evergreen<br>shrub/ May-Jun/ 3937-5495                                                                                   | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                                    |
| <i>Rupertia rigida</i><br>Parish's rupertia                                                 | None/ None/ 4.3<br>/List D /MSCP                                                          | Chaparral, Cismontane woodland, Lower<br>montane coniferous forest, Meadows and<br>seeps, Pebble plain, Valley and foothill<br>grassland/ perennial herb/ Jun-Aug/ 2297-<br>8202 | No                                                           | Low potential to<br>occur.    | Although suitable vegetation and elevations<br>are present, species is not known to occur<br>within the vicinity <sup>2</sup> .                                                                                                                   |
| <i>Saltugilia caruifolia</i><br>caraway-leaved<br>woodland-gilia                            | None/ None/ 4.3<br>/List D                                                                | Chaparral, Lower montane coniferous<br>forest/Sandy, openings/ annual herb/ May-<br>Aug/ 2756-7546                                                                               | No                                                           | Low potential to<br>occur.    | Suitable vegetation and soils are present, the<br>project site is located within the species' known<br>elevation range; however, the species is not<br>known to occur within the vicinity <sup>2</sup> .                                          |
| <i>Salvia eremostachya</i><br>desert sage                                                   | None/ None/ 4.3<br>/List D                                                                | Sonoran desert scrub(rocky or gravelly)/<br>perennial evergreen shrub/ Mar-May/<br>2297-4593                                                                                     | No                                                           | Low potential to<br>occur.    | Suitable vegetation is present and the<br>project site is located within the species'<br>known elevation range; however, species is<br>not known to occur within the vicinity <sup>2</sup> .                                                      |
| <i>Salvia munzii</i><br>Munz's sage                                                         | None/ None/ 2.3<br>/List B                                                                | Chaparral, Coastal scrub/ perennial<br>evergreen shrub/ Feb-Apr/ 394-3494                                                                                                        | No                                                           | Low potential to<br>occur.    | Suitable vegetation is present and the<br>project site is located within the species'<br>known elevation range; however, species is<br>not known to occur within the vicinity <sup>2</sup> .                                                      |
| <i>Scutellaria bolanderi</i><br>ssp. <i>austromontana</i><br>southern mountains<br>skullcap | None/ None/ 1B.2<br>/List A                                                               | Chaparral, Cismontane woodland, Lower<br>montane coniferous forest/mesic/ perennial<br>rhizomatous herb/ Jun-Aug/ 1394-6562                                                      | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present and the<br>project site is located within the species'<br>known elevation range; however, suitable<br>soils (mesic) are not present and the<br>species is not known to occur within the<br>vicinity <sup>2</sup> . |
| <i>Selaginella asprella</i><br>bluish spike-moss                                            | None/ None/ 4.3<br>/List D                                                                | Cismontane woodland, Lower montane<br>coniferous forest, Pinyon and juniper<br>woodland, Subalpine coniferous forest,                                                            | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Additionally, species                                                                                                   |

## Appendix D (Continued)

| Scientific Name<br>Common Name                         | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                             |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                        |                                                                                           | Upper montane coniferous forest/granitic,<br>rocky/ perennial rhizomatous herb/ Jul/<br>5249-8858               |                                                              |                               | is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                    |
| <i>Selaginella<br/>cinerascens</i><br>ashy spike-moss  | None/ None/ 4.1<br>/List D                                                                | Chaparral, Coastal scrub/ perennial<br>rhizomatous herb/ NA/ 66-2100                                            | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Additionally, species<br>is not known to occur within the vicinity <sup>2</sup> . |
| <i>Selaginella<br/>eremophila</i><br>desert spike-moss | None/ None/ 2.3<br>/List B                                                                | Chaparral, Sonoran desert scrub(gravelly<br>or rocky)/ perennial rhizomatous herb/<br>(May),Jun(Jul),/ 656-2953 | No                                                           | Not expected to<br>occur.     | Suitable vegetation and soils are present;<br>however, the project site is located outside<br>of the species' known elevation range.                                                                        |
| <i>Senecio aphanactis</i><br>chaparral ragwort         | None/ None/ 2.3<br>/List B                                                                | Chaparral, Cismontane woodland, Coastal<br>scrub/sometimes alkaline/ annual herb/<br>Jan-Apr/ 49-2625           | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present and the<br>species is known to occur within the<br>vicinity <sup>2</sup> , the project site is located outside of<br>the species' known elevation range.                     |
| <i>Senna covesii</i><br>Coves' cassia                  | None/ None/ 2.3<br>/List B                                                                | Sonoran desert scrub(sandy)/ perennial<br>herb/ Mar-Jun/ 935-3510                                               | No                                                           | Low potential to<br>occur.    | Although suitable vegetation and soils are<br>present and the project site is located within<br>the species' known elevation range, the<br>species is not known to occur in vicinity <sup>2</sup> .         |
| <i>Sibaropsis hammittii</i><br>Hammitt's clay-cress    | None/ None/ 1B.2<br>/List A /MSCP                                                         | Chaparral(openings), Valley and foothill<br>grassland/clay/ annual herb/ Mar-Apr/<br>2362-3494                  | No                                                           | Low potential to<br>occur.    | Although suitable vegetation and soils are<br>present and the project site is located within<br>the species' known elevation range, the<br>species is not known to occur in vicinity <sup>2</sup> .         |
| <i>Spermolepis echinata</i><br>bristly scaleseed       | None/ None/ 2.3<br>/List B                                                                | Sonoran desert scrub(sandy or rocky)/<br>annual herb/ Mar-Apr/ 197-4921                                         | No                                                           | Low potential to<br>occur.    | Although suitable vegetation and soils are<br>present and the project site is located within<br>the species' known elevation range, the<br>species is not known to occur in vicinity <sup>2</sup> .         |
| <i>Stemodia durantifolia</i><br>purple stemodia        | None/ None/ 2.3<br>/List B                                                                | Sonoran desert scrub(often mesic, sandy)/<br>perennial herb/ Jan-Dec/ 591-984                                   | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Additionally, the<br>species is not known to occur in vicinity <sup>2</sup> .     |

## Appendix D (Continued)

| Scientific Name<br>Common Name                                                  | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                                                                                                                                        | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Stipa diegoensis</i><br>San Diego County<br>needle grass                     | None/ None/ 4.2<br>/List D                                                                | Chaparral, Coastal scrub/rocky, often<br>mesic/ perennial herb/ Feb-Jun/ 33-2625                                                                                                                                                                        | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Additionally, the<br>species is not known to occur in vicinity <sup>2</sup> .                                                                                                                                               |
| <i>Streptanthus<br/>berardinus</i><br>Laguna Mountains<br>jewel-flower          | None/ None/ 4.3<br>/List D                                                                | Chaparral, Lower montane coniferous<br>forest/ perennial herb/ May-Aug/ 2198-<br>8202                                                                                                                                                                   | No                                                           | Low potential to<br>occur.    | Although suitable vegetation and soils are<br>present and the project site is located within<br>the species' known elevation range, the<br>species is not known to occur in vicinity <sup>2</sup> .                                                                                                                                                   |
| <i>Stylocline citroleum</i><br>oil neststraw                                    | None/ None/ 1B.1<br>/List A                                                               | Chenopod scrub, Coastal scrub, Valley<br>and foothill grassland/clay/ annual herb/<br>Mar-Apr/ 164-1312                                                                                                                                                 | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range.                                                                                                                                                                                                                                |
| <i>Suaeda esteroa</i><br>estuary seablite                                       | None/ None/ 1B.2<br>/List A                                                               | Marshes and swamps(coastal salt)/<br>perennial herb/ May-Oct(Jan),/ 0-16                                                                                                                                                                                | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range.                                                                                                                                                                                                                                |
| <i>Suaeda taxifolia</i><br>woolly seablite                                      | None/ None/ 4.2<br>/List D                                                                | Coastal bluff scrub, Coastal dunes, Marshes<br>and swamps(margins of coastal salt)/<br>perennial evergreen shrub/ Jan-Dec/ 0-164                                                                                                                        | No                                                           | Not expected to<br>occur      | No suitable vegetation is present and the<br>project site is located outside of the species'<br>known elevation range.                                                                                                                                                                                                                                |
| <i>Symphyotrichum<br/>defoliatum</i><br>San Bernardino aster                    | None/ None/ 1B.2<br>/None                                                                 | Cismontane woodland, Coastal scrub,<br>Lower montane coniferous forest,<br>Meadows and seeps, Marshes and<br>swamps, Valley and foothill<br>grassland(vernally mesic)/near ditches,<br>streams, springs/ perennial rhizomatous<br>herb/ Jul-Nov/ 7-6693 | No                                                           | Not expected to<br>occur      | The project site is located within the species<br>known elevation range and the species is<br>known to occur within the vicinity <sup>2</sup> ; however,<br>no suitable vegetation is present and site<br>lacks vernal mesic conditions. Nearest<br>known occurrence located approximately<br>2.7 miles northeast of the project site<br>(CDFW 2014). |
| <i>Thermopsis<br/>californica</i> var.<br><i>semota</i><br>velvety false lupine | None/ None/ 1B.2<br>/List A /MSCP                                                         | Cismontane woodland, Lower montane<br>coniferous forest, Meadows and seeps,<br>Valley and foothill grassland/ perennial<br>rhizomatous herb/ Mar-Jun/ 3281-6135                                                                                         | No                                                           | Not expected to<br>occur.     | No suitable vegetation is present, the<br>project site is located outside of the species'<br>known elevation range and the species is<br>not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                        |

## Appendix D (Continued)

| Scientific Name<br>Common Name                              | Sensitivity Code<br>and Status<br>(Federal/State/<br>CRPR/County/E<br>CMSCP) <sup>1</sup> | Habitat Requirements/<br>Life Form/ Blooming Period/<br>Elevational Range (feet)                                                            | Verified on<br>Project Site<br>(direct/indirect<br>evidence) | Potential to<br>Occur on Site | Factual Basis for Determination                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Texosporium sancti-jacobi</i><br>Woven-spored lichen     | None/None/ 3<br>/None                                                                     | Chaparral (openings)/on soil, small<br>mammal pellets, dead twigs, and on<br><i>Selaginella</i> spp/crustose lichen<br>terrestrial/951-2165 | No                                                           | Not expected to<br>occur      | Although suitable vegetation and substrates<br>are present, the project site is located<br>outside of the species' known elevation<br>range and the species it not know to occur<br>in the vicinity <sup>2</sup> . In addition, <i>Selaginella</i> sp.<br>were not observed on site during biological<br>surveys and the closest documented<br>occurrence approximately 53 miles<br>northwest of the project site. |
| <i>Viguiera laciniata</i><br>San Diego County<br>viguiera   | None/ None/ 4.2<br>/List D                                                                | Chaparral, Coastal scrub/ perennial shrub/<br>Feb-Jun(Aug),/ 197-2461                                                                       | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Additionally, species<br>is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                        |
| <i>Viguiera purisimae</i><br>La Purisima viguiera           | None/ None/ 2.3<br>/List A                                                                | Coastal bluff scrub, Chaparral/ shrub/ Apr-<br>Sep/ 1198-1394                                                                               | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Additionally, species<br>is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                        |
| <i>Viola purpurea</i> ssp.<br><i>aurea</i><br>golden violet | None/ None/ 2.3<br>/List B                                                                | Great Basin scrub, Pinyon and juniper<br>woodland/sandy/ perennial herb/ Apr-Jun/<br>3281-8202                                              | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>project site is located outside of the species'<br>known elevation range. Additionally, species<br>is not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                        |
| <i>Xanthisma junceum</i><br>rush-like bristleweed           | None/ None/ 4.3<br>/List D /MSCP                                                          | Chaparral, Coastal scrub/ perennial herb/<br>Jun-Jan/ 787-3281                                                                              | No                                                           | Low potential to<br>occur.    | Suitable vegetation is present and the<br>project site is located within the species'<br>known elevation range; however, species is<br>not known to occur within the vicinity <sup>2</sup> .                                                                                                                                                                                                                       |
| <i>Xylorhiza orcuttii</i><br>Orcutt's woody-aster           | None/ None/ 1B.2<br>/List A /MSCP                                                         | Sonoran desert scrub/ perennial herb/ Mar-<br>Apr/ 0-1198                                                                                   | No                                                           | Not expected to<br>occur.     | Suitable vegetation is present; however, the<br>site is located outside of the species' known<br>elevation range.                                                                                                                                                                                                                                                                                                  |

<sup>1</sup> Status:

CE: Candidate for federally listed as endangered.

## Appendix D (Continued)

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FE: Federally listed as endangered.

FT: Federally listed as threatened.

SE: State-listed as endangered.

ST: State-listed as threatened.

SR: State-listed as rare.

MSCP: Draft Covered Species under the ECMSCP.

CRPR: California Rare Plant Rank

1A (formerly List 1A): Plants Presumed Extinct in California

1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere

2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3 (formerly List 3): Plants About Which We Need More Information—A Review List

4 (formerly List 4): Plants of Limited Distribution—A Watch List

- 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% occurrences threatened/moderate degree and immediacy of threat)
- 0.3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

<sup>2</sup> "Vicinity" is based on a search of the CNDDDB and CNPS databases for the Jacumba quad and the six surrounding quads (Carrizo Mtn, Sweeney Pass, Sombrero Peak, In-ko-pah Gorge, Live Oak Springs, and Tierra del Sol) conducted in July 2014. Also includes a search of species detected within 5 miles from the project site (Jepson eflora 2014) and species within the U28, U29, T28, and T29 grids (SDNHM 2014a) conducted in July 2014.

## Appendix D (Continued)

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# **APPENDIX E**

## ***Special-Status Plant Habitat Suitability Model***



## APPENDIX E

### Special-Status Plant Habitat Suitability Model

| Species Information                                                    |                                                                                |                                                                                                                                                      |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                     | Habitat Suitability Inputs                                       |                        |                                                            | Output                         |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------|------------------------------------------------------------|--------------------------------|
| Scientific Name/Common Name                                            | Sensitivity Code and Status (Federal/ State/CRPR/ County/ ECMSCP) <sup>1</sup> | Habitat Requirements/ Life Form/ Blooming Period/ Elevational Range (feet)                                                                           | Potential to Occur on Site   | Factual Basis for Determination <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                        | Suitable Vegetation Communities On Site                          | Elevation Range (feet) | Soils/Other <sup>3</sup>                                   | Total Suitable Acreage On Site |
| <i>Acmispon haydonii</i> pygmy lotus                                   | None/ None/ 1B.3 /List A /MSCP                                                 | Pinyon and juniper woodland, Sonoran desert scrub/rocky/ perennial herb/ Jan-Jun/ 1706-3937                                                          | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur within the vicinity <sup>2</sup> . The closest occurrences are approximately 1.5 miles east and north of the project site (CDFW 2014a; Jepson eFlora 2014; SDNHM 2012a). Therefore, there is a moderate potential for this species to occur on site.                                 | Peninsular Juniper Woodland and Scrub; Sonoran mixed woody scrub | 1706-3937              | Acid igneous rock; Sloping gullied land; Rough broken land | 90.6                           |
| <i>Astragalus douglasii</i> var. <i>perstrictus</i> Jacumba milk-vetch | None/ None/ 1B.2 /List A /MSCP                                                 | Chaparral, Cismontane woodland, Pinyon and juniper woodland, Riparian scrub, Valley and foothill grassland/rocky/ perennial herb/ Apr-Jun/ 2953-4495 | High potential to occur.     | The project site is located within the species' known elevation range and suitable vegetation and soils are present. One CNDDDB occurrence overlaps with the northwest corner of project site and additional occurrences occur within the vicinity <sup>2</sup> . Species also observed during surveys for ECO Substation project site (CPUC and BLM 2011). Therefore, there is a high potential for this species to occur on site. | Peninsular Juniper Woodland and Scrub; Semi-desert chaparral;    | 2953-4495              | Acid igneous rock; Sloping gullied land; Rough broken land | 217.7                          |

## Appendix E (Continued)

| Species Information                                 |                                                                                |                                                                                                                     |                              |                                                                                                                                                                                                                                                                                                                                                                     | Habitat Suitability Inputs                                    |                        |                                                                                                                                        | Output                         |
|-----------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Scientific Name/Common Name                         | Sensitivity Code and Status (Federal/ State/CRPR/ County/ ECMSCP) <sup>1</sup> | Habitat Requirements/ Life Form/ Blooming Period/ Elevational Range (feet)                                          | Potential to Occur on Site   | Factual Basis for Determination <sup>2</sup>                                                                                                                                                                                                                                                                                                                        | Suitable Vegetation Communities On Site                       | Elevation Range (feet) | Soils/Other <sup>3</sup>                                                                                                               | Total Suitable Acreage On Site |
| <i>Berberis fremontii</i><br>Fremont barberry       | None/ None/ 2.3 /List C /MSCP                                                  | Chaparral, Joshua tree "woodland", Pinyon and juniper woodland/rocky/ perennial evergreen shrub/ Apr-Jun/ 2756-6070 | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur within the vicinity <sup>2</sup> . The closest occurrences are approximately 1.8 and 3.0 miles west of the project site (CDFW 2014a). Therefore, there is a moderate potential for this species to occur on site.    | Peninsular Juniper Woodland and Scrub; Semi-desert chaparral; | 2756-6070              | Acid igneous rock; Sloping gullied land; Rough broken land                                                                             | 217.7                          |
| <i>Calliandra eriophylla</i><br>pink fairy-duster   | None/ None/ 2.3 /List B /MSCP                                                  | Sonoran desert scrub(sandy or rocky)/ perennial deciduous shrub/ Jan-Mar/ 394-4921                                  | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur within the vicinity <sup>2</sup> with two occurrences approximately 6.5 miles east of the project site (CDFW 2014a, Jepson eFlora 2014). Therefore, there is a moderate potential for this species to occur on site. | Sonoran mixed woody scrub;                                    | 394-4921               | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 3.2                            |
| <i>Caulanthus simulans</i><br>Payson's jewel-flower | None/ None/ 4.2 /List D /MSCP                                                  | Chaparral, Coastal scrub/sandy, granitic/ annual herb/ (Feb),Mar-May(Jun),/ 295-7218                                | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species known to occur within the vicinity <sup>2</sup> . Several occurrences are located approximately 6 miles (and greater) west of the project site                                                                                         | Semi-desert chaparral;                                        | 295-7218               | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 186.9                          |

## Appendix E (Continued)

| Species Information                            |                                                                                |                                                                            |                              |                                                                                                                                                                                                                                                                                                                                                                              | Habitat Suitability Inputs              |                        |                                                                                                                                        | Output                         |
|------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Scientific Name/Common Name                    | Sensitivity Code and Status (Federal/ State/CRPR/ County/ ECMSCP) <sup>1</sup> | Habitat Requirements/ Life Form/ Blooming Period/ Elevational Range (feet) | Potential to Occur on Site   | Factual Basis for Determination <sup>2</sup>                                                                                                                                                                                                                                                                                                                                 | Suitable Vegetation Communities On Site | Elevation Range (feet) | Soils/Other <sup>3</sup>                                                                                                               | Total Suitable Acreage On Site |
|                                                |                                                                                |                                                                            |                              | (CDFW 2014a, Jepson eFlora 2014). Therefore, there is a moderate potential for this species to occur on site.                                                                                                                                                                                                                                                                |                                         |                        |                                                                                                                                        |                                |
| <i>Cylindropuntia wolfii</i><br>Wolf's cholla  | None/ None/ 4.3 /List D /MSCP                                                  | Sonoran desert scrub/ perennial stem succulent/ Mar-May/ 328-3937          | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur within the vicinity <sup>2</sup> with multiple occurrences approximately 2 miles northeast of the project site (Jepson eFlora 2014; SDNHM 2014a). Therefore, there is a moderate potential for this species to occur on site. | Sonoran mixed woody scrub;              | 328-3937               | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 3.2                            |
| <i>Deinandra floribunda</i><br>Tecate tarplant | None/ None/ 1B.2 /List A /MSCP                                                 | Chaparral, Coastal scrub/ annual herb/ Aug-Oct/ 230-4003                   | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur within the vicinity <sup>2</sup> . The closest occurrence is approximately 1.8 miles west of project site (CDFW 2014a). Therefore, there is a moderate potential for this species to occur on site.                           | Semi-desert chaparral;                  | 230-4003               | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 186.9                          |
| <i>Delphinium parishii</i> ssp.                | None/ None/ 4.3 /List D                                                        | Chaparral, Cismontane                                                      | High potential to            | The project site is located within the species' known elevation                                                                                                                                                                                                                                                                                                              | Peninsular Juniper                      | 1969-5906              | Acid igneous rock; Mecca coarse sandy                                                                                                  | 307.0                          |

## Appendix E (Continued)

| Species Information                                   |                                                                                |                                                                                                 |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Habitat Suitability Inputs                                            |                        |                                                                                                                                        | Output                         |
|-------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Scientific Name/Common Name                           | Sensitivity Code and Status (Federal/ State/CRPR/ County/ ECMSCP) <sup>1</sup> | Habitat Requirements/ Life Form/ Blooming Period/ Elevational Range (feet)                      | Potential to Occur on Site | Factual Basis for Determination <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                               | Suitable Vegetation Communities On Site                               | Elevation Range (feet) | Soils/Other <sup>3</sup>                                                                                                               | Total Suitable Acreage On Site |
| <i>subglobosum</i><br>Colorado Desert larkspur        |                                                                                | woodland, Pinyon and juniper woodland, Sonoran desert scrub/ perennial herb/ Mar-Jun/ 1969-5906 | occur.                     | range and suitable vegetation is present. Species observed during surveys for ECO Substation project (CPUC and BLM 2011) and many potential occurrences noted in the vicinity (Jepson eFlora 2014).                                                                                                                                                                                                                                                        | Woodland and Scrub; Semi-desert chaparral; Sonoran mixed woody scrub; |                        | loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land                                       |                                |
| <i>Geraea viscida</i><br>sticky geraea                | None/ None/ 2.3 /List B /MSCP                                                  | Chaparral(often in disturbed areas)/ perennial herb/ May-Jun/ 1476-5577                         | High potential to occur.   | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species has many occurrences within the vicinity <sup>2</sup> , nearest occurrences approximately 1.3 miles north and 2 miles east of the project (CDFW 2014a). In addition, this species was observed during surveys for ECO Substation (CPUC and BLM 2011). Therefore, there is a high potential for this species to occur on site. | Semi-desert chaparral; Disturbed                                      | 1476-5577              | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 199.5                          |
| <i>Harpagonella palmeri</i><br>Palmer's grapplinghook | None/ None/ 4.2 /List D /MSCP                                                  | Chaparral, Coastal scrub, Valley and foothill grassland/clay/ annual herb/ Mar-May/ 66-3133     | High potential to occur.   | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur within the vicinity <sup>2</sup> of the project site (Jepson eFlora 2014; SDNHM                                                                                                                                                                                                                             | Semi-desert chaparral                                                 | 66-3133                | Sloping gullied land;                                                                                                                  | 65.6                           |

## Appendix E (Continued)

| Species Information                                     |                                                                                |                                                                                                                   |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Habitat Suitability Inputs                                                               |                        |                                                                                                                      | Output                         |
|---------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Scientific Name/Common Name                             | Sensitivity Code and Status (Federal/ State/CRPR/ County/ ECMSCP) <sup>1</sup> | Habitat Requirements/ Life Form/ Blooming Period/ Elevational Range (feet)                                        | Potential to Occur on Site   | Factual Basis for Determination <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Suitable Vegetation Communities On Site                                                  | Elevation Range (feet) | Soils/Other <sup>3</sup>                                                                                             | Total Suitable Acreage On Site |
|                                                         |                                                                                |                                                                                                                   |                              | 2014a) and was observed at ECO Substation project site (RBC 2009a). Therefore, there is a high potential for this species to occur on site.                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                          |                        |                                                                                                                      |                                |
| <i>Ipomopsis tenuifolia</i><br>slender-leaved ipomopsis | None/ None/ 2.3 /List B                                                        | Chaparral, Pinyon and juniper woodland, Sonoran desert scrub/gravelly or rocky/ perennial herb/ Mar-May/ 328-3937 | High potential to occur.     | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species has many known occurrences within the vicinity <sup>2</sup> . There are approximately 32 occurrences within 5 miles of the project site. The closest occurrences occur approximately 0.3 miles northwest and southeast of the project site (CDFW 2014a). In addition, this species was also observed during surveys for ECO Substation (CPUC and BLM 2011). Therefore, there is a high potential for this species to occur on site. | Peninsular Juniper Woodland and Scrub; Semi-desert chaparral; Sonoran mixed woody scrub; | 328-3937               | Acid igneous rock; Sloping gullied land; Rough broken land                                                           | 220.9                          |
| <i>Lathyrus splendens</i><br>pride-of-California        | None/ None/ 4.3 /List D /MSCP                                                  | Chaparral/ perennial herb/ Mar-Jun/ 656-5003                                                                      | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur in the vicinity <sup>2</sup> . In addition, this species was                                                                                                                                                                                                                                                                                                                                                      | Semi-desert chaparral;                                                                   | 656-5003               | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; | 186.9                          |

## Appendix E (Continued)

| Species Information                                                            |                                                                                |                                                                                        |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Habitat Suitability Inputs                                       |                        |                                                                                                                                        | Output                         |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Scientific Name/Common Name                                                    | Sensitivity Code and Status (Federal/ State/CRPR/ County/ ECMSCP) <sup>1</sup> | Habitat Requirements/ Life Form/ Blooming Period/ Elevational Range (feet)             | Potential to Occur on Site | Factual Basis for Determination <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                          | Suitable Vegetation Communities On Site                          | Elevation Range (feet) | Soils/Other <sup>3</sup>                                                                                                               | Total Suitable Acreage On Site |
|                                                                                |                                                                                |                                                                                        |                            | observed during surveys for ECO Substation (CPUC and BLM 2011). Therefore, there is a moderate potential for this species to occur on site.                                                                                                                                                                                                                                                                                                                                           |                                                                  |                        | Rough broken land                                                                                                                      |                                |
| <i>Linanthus bellus</i><br>desert beauty                                       | None/ None/ 2.3 /List B /MSCP                                                  | Chaparral(sandy)/ annual herb/ Apr-May/ 3281-4593                                      | High potential to occur.   | The project site is located slightly below the species' known elevation range; however, there is suitable vegetation and soils present. One known occurrence overlaps with project site; however, exact location of occurrence unknown (CDFW 2014a). In addition, this species was also observed during surveys for ECO Substation (CPUC and BLM 2011). Several additional occurrences in the vicinity <sup>2</sup> . Therefore, there is a high potential for this species to occur. | Semi-desert chaparral                                            | 3281-4593              | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 186.9                          |
| <i>Lupinus excubitus</i><br>var. <i>medius</i><br>Mountain Springs bush lupine | None/ None/ 1B.3 /List A /MSCP                                                 | Pinyon and juniper woodland, Sonoran desert scrub/ perennial shrub/ Mar-May/ 1394-4495 | High potential to occur.   | The project site is located within the species' known elevation range and suitable vegetation and soils are present. One known occurrence is directly outside the northwest corner of project boundary (CDFW 2014a). Approximately 20 additional occurrences within 5 miles of project site (CDFW                                                                                                                                                                                     | Peninsular Juniper Woodland and Scrub; Sonoran mixed woody scrub | 1394-4495              | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 120.1                          |

## Appendix E (Continued)

| Species Information                                                    |                                                                                |                                                                                       |                              |                                                                                                                                                                                                                                                                                                                                                                                          | Habitat Suitability Inputs                        |                        |                                                                                                                                        | Output                         |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Scientific Name/Common Name                                            | Sensitivity Code and Status (Federal/ State/CRPR/ County/ ECMSCP) <sup>1</sup> | Habitat Requirements/ Life Form/ Blooming Period/ Elevational Range (feet)            | Potential to Occur on Site   | Factual Basis for Determination <sup>2</sup>                                                                                                                                                                                                                                                                                                                                             | Suitable Vegetation Communities On Site           | Elevation Range (feet) | Soils/Other <sup>3</sup>                                                                                                               | Total Suitable Acreage On Site |
|                                                                        |                                                                                |                                                                                       |                              | 2014a) and additional occurrences are known to occur within the vicinity <sup>2</sup> . Therefore, there is a high potential for this species to occur.                                                                                                                                                                                                                                  |                                                   |                        |                                                                                                                                        |                                |
| <i>Lycium parishii</i><br>Parish's desert-thorn                        | None/ None/ 2.3 /List B /MSCP                                                  | Coastal scrub, Sonoran desert scrub/ perennial shrub/ Mar-Apr/ 443-3281               | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur within the vicinity <sup>2</sup> . Nearest known occurrence is approximately 5.5 miles northeast of the project (CDFW 2014a). Therefore, there is a moderate potential for this species to occur on site.                                 | Sonoran mixed woody scrub;                        | 443-3281               | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 3.2                            |
| <i>Mimulus aurantiacus</i> var. <i>aridus</i><br>low bush monkeyflower | None/ None/ 4.3 /List D                                                        | Chaparral(rocky), Sonoran desert scrub/ perennial evergreen shrub/ Apr-Jul/ 2461-3937 | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and rocky soils are present. Species was observed during surveys for ECO Substation project (CPUC and BLM 2011) and many occurrences are known to occur within the vicinity <sup>2</sup> (Jepson eFlora 2014). Therefore, there is a moderate potential for this species to occur on site. | Semi-desert chaparral; Sonoran mixed woody scrub; | 2461-3937              | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 186.9                          |

## Appendix E (Continued)

| Species Information                                     |                                                                                |                                                                                                                         |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Habitat Suitability Inputs                                    |                        |                                                                                                                                        | Output                         |
|---------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Scientific Name/Common Name                             | Sensitivity Code and Status (Federal/ State/CRPR/ County/ ECMSCP) <sup>1</sup> | Habitat Requirements/ Life Form/ Blooming Period/ Elevational Range (feet)                                              | Potential to Occur on Site   | Factual Basis for Determination <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                    | Suitable Vegetation Communities On Site                       | Elevation Range (feet) | Soils/Other <sup>3</sup>                                                                                                               | Total Suitable Acreage On Site |
| <i>Streptanthus campestris</i><br>southern jewel-flower | None/ None/ 1B.3 /List A                                                       | Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland/rocky/ perennial herb/ (Apr),May-Jul/ 2953-7546 | Moderate potential to occur. | The project site is located within the species' known elevation range and suitable vegetation and soils are present. Species is known to occur within the vicinity <sup>2</sup> with the nearest occurrence occurring approximately 2 miles northeast and 4.8 miles northwest of the project site (CDFW 2014a). Additional occurrences approximately 2 miles east of the site (Jepson eFlora 2014). Therefore, there is a moderate potential for this species to occur on site. | Peninsular Juniper Woodland and Scrub; Semi-desert chaparral; | 2953-7546              | Acid igneous rock; Sloping gullied land; Rough broken land                                                                             | 217.7                          |
| <i>Tetracoccus dioicus</i><br>Parry's tetracoccus       | None/ None/ 1B.2 /List A                                                       | Chaparral, Coastal scrub/ perennial deciduous shrub/ Apr-May/ 541-3281                                                  | Moderate potential to occur. | Suitable vegetation is present; the project site is located within the species' known elevation range and the nearest known occurrence is approximately 2.5 miles west of the project site (CDFW 2014a). Therefore, there is a moderate potential for this species to occur on site.                                                                                                                                                                                            | Semi-desert chaparral                                         | 541-3281               | Acid igneous rock; Mecca coarse sandy loam, 2-5% slope; Rositas loamy coarse sand, 2-9% slope; Sloping gullied land; Rough broken land | 186.9                          |

<sup>1</sup> Status:

CE: Candidate for federally listed as endangered.

FT: Federally listed as threatened.

SE: State-listed as endangered.

## Appendix E (Continued)

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SR: State-listed as rare.MSCP: Draft Covered Species under the ECMSCP

CRPR: California Rare Plant Rank

1A (formerly List 1A): Plants Presumed Extinct in California

1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere

2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3 (formerly List 3): Plants About Which We Need More Information—A Review List

4 (formerly List 4): Plants of Limited Distribution—A Watch List

- 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% occurrences threatened/moderate degree and immediacy of threat)
- 0.3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

<sup>2</sup> "Vicinity" is based on a search of the CNDDB and CNPS databases for the Jacumba quad and the six surrounding quads (Carrizo Mtn, Sweeney Pass, Sombrero Peak, In-ko-pah Gorge, Live Oak Springs, and Tierra del Sol) conducted in July 2014. Also includes a search of species detected within 5 miles from the project site (Jepson eflora 2014) and species within the U28, U29, T28, and T29 grids (SDNHM 2014a) conducted in July 2014.

<sup>3</sup> All soil types were used in the habitat suitability model for cases where preferred soils data was not available.

## Appendix E (Continued)

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# **APPENDIX F**

*Special-Status Wildlife Species Detected or  
Potentially Occurring in the Project Area*



## APPENDIX F

### Special-Status Wildlife Species Detected or Potentially Occurring in the Project Area

| Scientific Name/<br>Common Name                                                       | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup>        | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Reptiles</i>                                                                       |                                                                 |                                                                                                                                                                                                                                                                                                                                   |                                                   |                                  |                                                                                                                                                                                                                                                                                 |
| <i>Aspidoscelis<br/>hyperythra beldingi</i><br>Belding's orange-<br>throated whiptail | None/SSC (for full<br>species)/Group 2,<br>MSCP                 | Coastal sage scrub, chamise-redshank<br>chaparral, mixed chaparral, valley-foothill<br>hardwood especially in areas with summer fog.<br>Found from Santa Ana River (Orange Co.) and<br>near Colton (San Bernardino Co.), west of<br>Peninsular ranges, south throughout Baja<br>California (1, 2).                                | No                                                | High                             | Suitable habitat (including potential<br>termite food source <sup>4</sup> ) is present within the<br>project area. Species is recorded in the<br>CNDDB 7-quad search <sup>2</sup> and was<br>observed during surveys for the ECO<br>Substation (CPUC and BLM 2011).             |
| <i>Salvadora hexalepis<br/>virgultea</i><br>Coast patch-nosed<br>snake                | None/SSC/Group 2,<br>MSCP                                       | Semi-arid brushy areas and chaparral in<br>canyons, rocky hillsides, plains from northern<br>Carrizo Plains south through coastal zone, south<br>and west of the deserts into coastal northern<br>Baja California; below sea level to 2,130m (1).                                                                                 | No                                                | Moderate                         | Suitable habitat is present within the<br>project area. Not recorded in the CNDDB<br>7-quad search <sup>2</sup>                                                                                                                                                                 |
| <i>Lichanura trivirgata</i><br>Rosy boa                                               | None/None/Group 2<br>(for subspecies<br><i>L.t.roseofusca</i> ) | Arid scrublands, semi-arid shrublands, rocky<br>shrublands, rocky deserts, canyons, other rocky<br>areas, riparian areas, desert and chaparral<br>areas. Occurs throughout Southern California<br>from the coast to the Mojave and Colorado<br>deserts. Prefer areas with moderate to dense<br>vegetation and rocky cover (1, 2). | No                                                | High                             | Suitable scrub habitat with rock<br>outcroppings present on site. Species is<br>documented in the Live Oak Springs<br>quadrangle (CNDDB 2014).                                                                                                                                  |
| <i>Aspidoscelis tigris<br/>stejnegeri</i><br>San Diegan tiger<br>whiptail             | None/None/Group 2                                               | Variety of habitats, primarily hot and dry open<br>areas with sparse foliage - chaparral, woodland,<br>riparian. Occurs in coastal southern California,<br>west of Peninsular Ranges and south of<br>Transverse Ranges, north to Ventura Co; 0 to<br>2,130m (1).                                                                  | No                                                | High                             | Suitable scrub habitat with rock<br>outcroppings present on site. Potential<br>termite food sources present onsite <sup>4</sup> .<br>Species is documented in the Live Oak<br>Springs quadrangle (CNDDB 2014).<br>Project site is within elevational range for<br>this species. |
| <i>Crotalus ruber ruber</i><br>Northern Red-<br>diamond rattlesnake                   | None/SSC/Group 2,<br>MSCP                                       | Arid scrub, coastal chaparral, oak and pine<br>woodlands, rocky grassland, cultivated areas,<br>rocky areas, dense vegetation. Occurs along<br>coastal San Diego County to the eastern slopes<br>of the mountains and north through western<br>Riverside co. into southernmost San Bernardino                                     | No                                                | High                             | Suitable habitat is present within the<br>rocky outcrops observed on site. Also,<br>any area with dense vegetation provides<br>suitable habitat, including semi-desert<br>chaparral, Sonoran mixed woody scrub,<br>upper Sonoran subshrub scrub, and                            |

## APPENDIX F (Continued)

| Scientific Name/<br>Common Name                                          | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                                                                          | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                          |                                                          | Co.; 0 - 900m (1,2).                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                   |                                  | Peninsular juniper woodland and scrub. Species is documented in the In-Ko-Pah Gorge, Jacumba, and Sweeney Pass quadrangles (CNDDB 2014).                                                                                                                                                                                                                              |
| <i>Coleonyx variegatus abbotti</i><br>San Diego banded gecko             | None/None/Group 1                                        | Rocky areas in coastal sage and chaparral, and occurs most often in granite or rocky outcrops in coastal and cismontane southern California from interior Ventura Co. south, and is absent from extreme outer coast (1, 2).                                                                                                                                                                                                                 | No                                                | Moderate                         | Suitable habitat is present the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                                                                                    |
| <i>Phrynosoma blainvillii</i><br>Blainville's horned lizard              | None/SSC/Group 2, MSCP                                   | Areas of sandy soil and low vegetation in valleys, foothills, semiarid mountains, grasslands, chaparral, woodland, coniferous forest, sandy areas. Often found near ant hills and in lowlands along sandy washes with scattered shrubs and along dirt roads. Occurs along the Pacific coast from the Baja California border west of the deserts and the Sierra Nevada, north to the Bay Area, and inland to Shasta Reservoir; 0-2,483m (1). | No                                                | High                             | Species not observed during biological surveys. However, one CNDDB record within the northern border of the solar project site (CNDDB 2014). Species also documented in the Jacumba, Live Oak Springs, Sombrero Peak, and Tierra Del Sol quadrangles (CNDDB 2014). In addition, presence of harvester ants <sup>3</sup> would provide a food source for this species. |
| <i>Gambelia copeii</i><br>Cope's leopard lizard                          | None/None/ MSCP                                          | Coastal sage scrub, chaparral, oak woodland. Prefers flat areas with open space and avoids densely vegetated areas.                                                                                                                                                                                                                                                                                                                         | No                                                | Moderate                         | Suitable chaparral habitat is present on site. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                                                                                   |
| <i>Anniella pulchra (pulchra)</i><br>California (Silvery) legless lizard | None/SSC/Group 2, MSCP                                   | Moist habitats. Loose soils with plant cover, beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, stream terraces with sycamores, cottonwoods, or oaks. Found under surface objects such as rocks, boards, driftwood, logs, leaf litter; 0-1,799m (1).                                                                                                                                                                  | No                                                | Moderate                         | Suitable habitat is present within the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                                                                             |
| <i>Sceloporus graciosus vanderburgianus</i><br>Southern sagebrush lizard | None/None/Group 2                                        | Shrublands such as chaparral, manzanita, ceanothus; open pine and Douglas-fir forests in mountains; found in areas with scattered low bushes, abundant sun. Transverse and Peninsular ranges of southern California, Sierra San Pedro Martir of northern Baja California. Subspecies found at higher elevations: 1,371-2,926m (1).                                                                                                          | No                                                | Moderate                         | Suitable chaparral and scattered low bushes present. Project area within suitable elevation range of the subspecies. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                                             |

## APPENDIX F (Continued)

| Scientific Name/<br>Common Name                                                          | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                      | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site                                | Factual Basis For Determination                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Birds</i>                                                                             |                                                          |                                                                                                                                                                                                                                                                                                                                                         |                                                   |                                                                 |                                                                                                                                                                                                                                                                                                                        |
| <i>Accipiter cooperii</i><br>(nesting)<br>Cooper's hawk                                  | None/WL/Group 1                                          | Dense stands of live oak, riparian deciduous, forest habitats near water frequently used. Breeds in southern Sierra Nevada foothills, New York Mts., Owens Valley, other local areas in southern California, 0-2,700m (2).                                                                                                                              | No                                                | Low<br>(nesting);<br>High (non-<br>breeding)                    | Species recorded in the Live Oak Springs and Jacumba quadrangles (CDFW 2014a) in the vicinity (SDNHM 2014b) and during surveys for ECO Substation and (CPUC and BLM 2011).                                                                                                                                             |
| <i>Aimophila ruficeps canescens</i><br>Southern California<br>rufous-crowned<br>sparrow  | None/WL/Group 1,<br>MSCP                                 | Sparse mixed chaparral and coastal scrub habitats (especially coastal sage) in southern California on slopes of Transverse and Coastal ranges, north to Los Angeles County, and northwestern Baja California. Found on steep, rocky hillsides with grass and forb patches, and grassy slopes with low shrub cover, if rock outcrops are present (2, 4). | No                                                | Moderate<br>(nesting<br>and non-<br>breeding)                   | Species documented in the vicinity (SDNHM 2014b). Suitable chaparral and rock outcrop habitat is present within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                |
| <i>Aquila chrysaetos</i><br>(nesting and<br>wintering)<br>Golden eagle                   | BCC/ FP, WL/Group<br>1, MSCP                             | Open country, especially hilly and mountainous regions; grassland, coastal sage scrub, chaparral, oak savannas, open coniferous forest. Rolling foothills, mountain areas, sage-juniper flats, desert throughout California (2).                                                                                                                        | No                                                | Not<br>expected<br>(nesting);<br>Moderate<br>(non-<br>breeding) | Generally suitable foraging habitat is present within the project area, though may be too densely vegetated in some portions; No suitable nesting habitat on site. Documented in the Carrizo Mtn, Jacumba, and Sombrero Peak quadrangles (CNDDDB 2014) and confirmed breeding north of the project site (SDNHM 2014b). |
| <i>Artemisiospiza belli</i><br>Bell's sage sparrow                                       | BCC/WL/Group 1,<br>MSCP                                  | <b>Occurs in low, dense stands of shrubs; chaparral dominated by chamise, coastal scrub dominated by sage. Coast Ranges from northern California to northwestern Baja California, western slope of Sierra Nevada (2). Nominate form of species designated as special-status.</b>                                                                        | <b>Observed</b>                                   | <b>N/A</b>                                                      | <b>Observed on site during biological surveys but not mapped. Species is also documented in the vicinity (SDNHM 2014b). The project area contains suitable chaparral. Not recorded in the CNDDDB 7-quad search<sup>2</sup></b>                                                                                         |
| <i>Athene cunicularia</i><br>(burrow sites and<br>some wintering sites)<br>Burrowing owl | BCC/SSC/Group 1,<br>MSCP                                 | Open, dry grassland and desert habitats; grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats throughout the state, 0-1,600m (2).                                                                                                                                                                                            | Negative<br>surveys                               | Moderate<br>to low<br>(burrow<br>and                            | The project area contains some open suitable habitat for this species, but much more atypical habitat is present (i.e., they do not prefer habitat where they are                                                                                                                                                      |

## APPENDIX F (Continued)

| Scientific Name/<br>Common Name                             | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                            | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site                | Factual Basis For Determination                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                             |                                                          |                                                                                                                                                                                                                                                                                               |                                                   | wintering)                                      | unable to view their surroundings). Only three suitable burrowing locations (including one complex) were observed during surveys; however, no BUOW sign was present. Although not recorded in the CNDDDB 7-quadrant search <sup>2</sup> , a single burrowing owl was observed foraging within the ECO Substation <sup>1</sup> (CPUC and BLM 2011)              |
| <i>Buteo regalis</i><br>(wintering)<br>Ferruginous hawk     | BCC/SSC, WL/Group 1, MSCP                                | Open, grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, fringes of pinyon-juniper habitats. Uncommon winter resident at low elevations and open grasslands of Modoc Plateau, Central Valley, Coast Ranges. Common winter resident in southwestern California (2). | No                                                | Not expected (nesting); Moderate (non-breeding) | Suitable habitat is present within the project area. May use the project area to forage during the winter. However, project area is outside the recorded breeding range for this species. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                                                                            |
| <i>Cathartes aura</i><br>Turkey vulture                     | None/None/Group 1, MSCP                                  | Rangeland, agriculture, grassland; uses cliffs and large trees for roosting, nesting and resting throughout most of California during breeding season (2).                                                                                                                                    | Observed                                          | N/A                                             | Observed occasionally foraging overhead onsite during biological surveys. Suitable foraging habitat present. No suitable breeding habitat present. Species also documented in the vicinity (CPUC and BLM 2011; SDNHM 2014b).                                                                                                                                   |
| <i>Eremophila alpestris actia</i><br>California horned lark | None/WL/Group 2, MSCP                                    | Open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, fallow grain fields south of Humboldt Co. in coast ranges, in San Joaquin Valley except extreme southern end (2, 4).                                                                                | Observed                                          | N/A                                             | Observed on site during biological surveys with several individuals generally occurring at mapped locations (although highly mobile). Although species documented onsite and in the vicinity (CPUC and BLM 2011; SDNHM 2014b), the project area lacks suitable grassland nesting habitat for this species. This species is expected to occur onsite during the |

<sup>1</sup> Burrowing owl was concluded to be a single transient individual.

## APPENDIX F (Continued)

| Scientific Name/<br>Common Name                              | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                 | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site            | Factual Basis For Determination                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                              |                                                          |                                                                                                                                                                                                                                                                                                                    |                                                   |                                             | <b>non-breeding season. Not recorded in the CNDDDB 7-quad search<sup>2</sup></b>                                                                                                                                                                                                       |
| <i>Falco mexicanus</i><br>(nesting)<br>Prairie falcon        | BCC/WL/Group 1                                           | Grassland, savannas, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs. Southeastern deserts northwest through Central Valley and along inner Coast Ranges and Sierra Nevada (2).                                                                                                     | No                                                | Not expected (nesting); High (non-breeding) | Species documented in the Carrizo Mtn., In-ko-pah Gorge, Jacumba, Live Oak Springs, Sombrero Peak, Sweeney Pass, and Tierra Del Sol quadrangles (CNDDDB 2014) and in the vicinity (SDNHM 2014b). No suitable nesting habitat on site. Suitable foraging habitat includes desert scrub. |
| <i>Lanius ludovicianus</i><br>(nesting)<br>Loggerhead shrike | BCC/SSC/Group 1, MSCP                                    | Open habitats with scattered shrubs, trees or other perches; highest density in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Found in foothills and lowlands throughout California (2). | Observed                                          | N/A                                         | Observed onsite during biological surveys. Suitable shrub perches and pinyon-juniper present on site. Species documented breeding in the vicinity (SDNHM 2014b).                                                                                                                       |
| <i>Sialia mexicana</i><br>Western bluebird                   | None/None/Group 2                                        | Open forests of deciduous, coniferous or mixed trees, savanna, edges of riparian woodland. Common throughout California excluding higher mountains and eastern deserts (2).                                                                                                                                        | Observed                                          | N/A                                         | Observed onsite during biological surveys. Species is also documented in the vicinity (SDNHM 2014b). Although no suitable nesting habitat occurs, there is suitable foraging habitat present.                                                                                          |
| <i>Tyto alba</i><br>Barn owl                                 | None/None/Group 2                                        | Open habitats including grassland, chaparral, riparian, and other wetlands throughout the state, 0-1,680m (2).                                                                                                                                                                                                     | Observed                                          | N/A                                         | Observed during biological surveys. Suitable foraging (chaparral) habitat present. No suitable nesting habitat on site. Species also documented in the vicinity (SDNHM 2014b).                                                                                                         |
| <i>Vireo vicinior</i><br>(nesting)<br>Gray vireo             | BCC /SSC/Group 1, MSCP                                   | Summer resident in arid pinyon-juniper, juniper, and chamise-redshank chaparral habitats in mountains of southern California, 600-2,000m (2).                                                                                                                                                                      | No                                                | Moderate (nesting and non-breeding)         | Suitable nesting habitat (juniper) present on site. Species also documented in the vicinity (SDNHM 2014b).                                                                                                                                                                             |

## APPENDIX F (Continued)

| Scientific Name/<br>Common Name                                                | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                       | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Mammals</i>                                                                 |                                                          |                                                                                                                                                                                                                                                                                                          |                                                   |                                  |                                                                                                                                                                                                                                                                                                                                         |
| <i>Antrozous pallidus</i><br>Pallid bat                                        | None/SSC/Group 2,<br>MSCP/ WBWG:H                        | Grasslands, shrublands, woodlands, forests;<br>most common in open dry habitats with rocky<br>outcrops for roosting. Found throughout low<br>elevations of California, except for high Sierra<br>Nevada and northwestern corner of the state<br>south to Mendocino Co. (2).                              | No                                                | Moderate                         | Suitable rocky outcrops and rock crevices<br>for roosting present within the project<br>area. Documented in the Jacumba and<br>Sweeney Pass quadrangles (CNDDB<br>2014).                                                                                                                                                                |
| <i>Chaetodipus<br/>californicus femoralis</i><br>Dulzura pocket<br>mouse       | None/SSC/Group 2                                         | Occurs in a variety of habitats including coastal<br>scrub, chaparral, and grasslands. Micro habitat<br>includes grass-chaparral edges (6).                                                                                                                                                              | No                                                | Moderate                         | Project area has dry climate and suitable<br>chaparral habitat. Documented in the Live<br>Oak Springs and Sombrero Peak<br>quadrangles (CNDDB 2014).                                                                                                                                                                                    |
| <i>Chaetodipus fallax<br/>fallax</i><br>Northwestern San<br>Diego pocket mouse | None/SSC (full<br>species)/Group 2                       | Occurs in coastal scrub, chaparral, grasslands,<br>sagebrush, and similar habitats in western San<br>Diego County. Micro habitat includes sandy,<br>herbaceous areas, usually in association with<br>rocks or coarse gravel (6).                                                                         | No                                                | High                             | Marginal records include Jacumba, but<br>site is located on range boundaries<br>between this subspecies and the pallid<br>San Diego pocketmouse ( <i>C. f. pallidus</i> ),<br>which has the same SSC status and<br>occurs on the eastern slope of the coast<br>range mountains. Not recorded in the<br>CNDDB 7-quad search <sup>2</sup> |
| <i>Chaetodipus fallax<br/>pallidus</i><br>Pallid San Diego<br>pocket mouse     | None/SSC (full<br>species)/Group 2                       | Coastal scrub, mixed chaparral, sagebrush, desert<br>wash, desert scrub, desert succulent shrub, pinyon-<br>juniper, and annual grassland. Along southern<br>margins of Mojave Desert, along northern slopes of<br>San Bernardino Mts., western edge of Colorado<br>Desert south to Baja California (6). | No                                                | Moderate                         | Suitable chaparral and pinyon-juniper<br>habitat found with the project area.<br>Documented in the In-Ko-Pah Gorge<br>quadrangle (CNDDB 2014).                                                                                                                                                                                          |
| <i>Euderma maculatum</i><br>Spotted bat                                        | None/SSC/Group 2/<br>WBWG:H                              | Foothills, mountains, desert regions of southern<br>California including arid deserts, grasslands, mixed<br>conifer forests. Roosts in rock crevices, cliffs. Feeds<br>over water and along washes (2).                                                                                                  | No                                                | Moderate                         | Suitable roosting habitat found within the<br>project area (rock crevices). Not recorded<br>in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                     |

## APPENDIX F (Continued)

| Scientific Name/<br>Common Name                                          | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                         | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site       | Factual Basis For Determination                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Lepus californicus bennettii</i><br>San Diego black-tailed jackrabbit | None/SSC/Group 2,<br>MSCP                                | Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands in southern California (2, 4).                                                                                                                                                                                                    | Observed                                          | N/A                                    | Observed onsite during biological surveys. Suitable chaparral and scrub habitats found within the project area. Documented in the Live Oak Springs quadrangle (CNDDDB 2014) and in the vicinity (CPUC and BLM 2011).                                                                                       |
| <i>Macrotus californicus</i><br>California leafed-nosed bat              | None/SSC/Group 2/<br>WBWG:H                              | Desert riparian, desert wash, desert scrub, desert succulent shrub, alkali desert scrub, and palm oasis. Found from Riverside, Imperial, San Diego, and San Bernardino Cos. south to Mexican border; fairly common along parts of Colorado River, elevation approximately 600m (2).                                                        | No                                                | Moderate (foraging);<br>Low (roosting) | Site supports suitable foraging habitat and is within range of species. Species prefers caves or mines for roosting, which are not present on site; however rugged rocky outcrops are present and may provide some limited roosting opportunities. Documented in the Sweeney Pass quadrangle (CDFW 2014a). |
| <i>Myotis ciliolabrum</i><br>Western small-footed myotis                 | None/None/Group 2/<br>WBWG:M                             | Occurs in a wide variety of habitats, primarily in arid wooded and brushy uplands near water. In coastal California it occurs from Contra Costa Co. south to the Mexican border; occurs on in the Sierra Nevada and Great Basin and desert habitats from Modoc to Kern and San Bernardino Cos. Found from sea level to at least 2700m (2). | No                                                | Moderate                               | Suitable rock crevices present in the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                  |
| <i>Myotis evotis</i><br>Long-eared myotis                                | None/None/Group 2/<br>WBWG:M                             | Roosts in buildings, crevices, under bark, and snags. Caves used as night roosts. Feeds along habitat edges, in open habitats, and over water. Occurs primarily along entire coast and in Sierra Nevada, Cascades, Great Basin, and 0-2,700 m (2).                                                                                         | No                                                | Moderate                               | Suitable rock crevices present in the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                  |
| <i>Myotis thysanodes</i><br>Fringed myotis                               | None /None/Group 2/<br>WBWG:H                            | Pinyon-juniper, valley foothill hardwood, hardwood-conifer habitats. Roosts in caves, mines, buildings, or crevices. Forages over open habitats, early successional stages, streams, lakes, and ponds. Found throughout California except Central Valley and Colorado and Mojave Deserts (2).                                              | No                                                | Moderate                               | Suitable rock crevices present in the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                  |

## APPENDIX F (Continued)

| Scientific Name/<br>Common Name                              | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                   | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Myotis volans</i><br>Long-legged myotis                   | None/None/Group 2/<br>WBWG:H                             | Occupies woodland and forest habitats over 1200m. Feeds over open water and over open habitats such as chaparral and coastal scrub, using denser woodlands and forests for cover and reproduction. Roosts in rock crevices, buildings, under tree bark, in snags, mines, caves. Found in coastal ranges, Cascade/Sierra Nevada ranges, Great Basin, and ranges in Mojave Desert (2). | No                                                | Moderate                         | Suitable rock crevices present in the project area. Documented in the Sweeney Pass quadrangle (CNDDDB 2014).                                                                                                                                                                                                                                            |
| <i>Neotoma lepida intermedia</i><br>San Diego desert woodrat | None/SSC/Group 2                                         | Joshua tree, pinyon-juniper, mixed and chamise-redshank chaparral, sagebrush, and most desert habitats. Found south of San Luis Obispo Co. to San Diego Co. and San Bernardino and Riverside Cos., 0-2600m (2, 4).                                                                                                                                                                   | Potentially Detected                              | N/A                              | Woodrat middens observed during biological surveys. Suitable juniper and chaparral habitats on site. Documented in the In-Ko-Pah Gorge and Live Oak Springs quadrangles (CNDDDB 2014).                                                                                                                                                                  |
| <i>Nyctinomops femorosaccus</i><br>Pocketed free-tailed bat  | None/SSC/Group 2/<br>WBWG:M                              | Rocky desert areas with high cliffs or rock outcrops. Pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, palm oasis in Riverside, San Diego, Imperial Cos. (2).                                                                                                                                         | No                                                | Moderate                         | Suitable roosting habitat found within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                                                          |
| <i>Nyctinomops macrotis</i><br>Big free-tailed bat           | None/SSC/Group 2/<br>WBWG:MH                             | Rugged, rocky canyons in Riverside, Los Angeles, and San Diego Cos., but scattered records across California to Oakland (2, 6).                                                                                                                                                                                                                                                      | No                                                | Moderate                         | Suitable roosting habitat found within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                                                          |
| <i>Odocoileus hemionus</i><br>Mule deer                      | None/None/Group 2                                        | Coastal sage scrub, chaparral, riparian, woodlands, forest; often browses in open areas adjacent to cover throughout California, except deserts and intensely farmed areas (2).                                                                                                                                                                                                      | No                                                | High                             | Suitable chaparral habitat present and site has good connectivity to other large open space areas. Openings in border fence may facilitate movement to habitats south of the border. However, regular patrols may reduce the suitability of the habitat. Not tracked in CDFW (2014) because not considered special-status by state or federal agencies. |

## APPENDIX F (Continued)

| Scientific Name/<br>Common Name                                         | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                          | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Perognathus longimembris internationalis</i><br>Jacumba pocket mouse | None/SSC/Group 2,<br>MSCP                                | Desert riparian, desert scrub, desert wash, coastal scrub, and sagebrush in San Diego and Riverside Cos. (2, 6).                                                                                                                            | No                                                | Moderate                         | Suitable habitat within the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                        |
| <i>Puma concolor</i><br>Mountain lion                                   | None/None/Group 2                                        | Coastal sage scrub, chaparral, riparian, woodlands, forest; rests in rocky areas, and on cliffs and ledges that provide cover. Most abundant in riparian areas and brushy stages of most habitats throughout California except deserts (2). | No                                                | High                             | Suitable chaparral and rocky areas in project area. Site has good connectivity to other large open space areas. Openings in border fence may facilitate movement to habitats south of the border. However, regular patrols may reduce the suitability of the habitat. |
| <i>Invertebrates</i>                                                    |                                                          |                                                                                                                                                                                                                                             |                                                   |                                  |                                                                                                                                                                                                                                                                       |
| <i>Apodemia mormo peninsularis</i><br>Mormon metalmark                  | None/None/Group 1                                        | Meadows. Larval host plant <i>Eriogonum wrightii</i> ssp. membranaceum. Specimen from meadows in Laguna Mts., 1,676m (10)                                                                                                                   | No                                                | Moderate                         | Not observed during biological surveys. Suitable buckwheat habitat within the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                      |
| <b><i>Danaus plexippus</i><br/>Monarch butterfly</b>                    | <b>None/None/Group 2</b>                                 | <b>Overwinters in eucalyptus groves from San Francisco south to northern Baja California (4).</b>                                                                                                                                           | <b>Observed</b>                                   | <b>N/A</b>                       | <b>Observed during biological surveys. However, no eucalyptus groves within the project area and species not recorded in the CNDDB 7-quad search<sup>2</sup>. No larvae host plants or foraging plants (i.e., milkweeds; <i>Asclepias</i>) observed onsite.</b>       |

<sup>1</sup> **Status Designations:**

Federal Designations:

|       |                                                                         |
|-------|-------------------------------------------------------------------------|
| BCC   | Fish and Wildlife Service: Birds of Conservation Concern                |
| FC    | Candidate for federal listing as threatened or endangered               |
| (FD)  | Federally-delisted; monitored for five years                            |
| FE    | Federally-listed Endangered                                             |
| FT    | Federally-listed as Threatened                                          |
| MNBMC | Fish and Wildlife Service Migratory Nongame Birds of Management Concern |
| USBC  | United States Bird Conservation Watch List                              |
| FPT   | Federally Proposed Threatened                                           |

State Designations:

## APPENDIX F (Continued)

|                      |                                                                |
|----------------------|----------------------------------------------------------------|
| SSC                  | California Special Concern Species                             |
| FP                   | California Department of Fish and Game Fully Protected Species |
| WL                   | California Department of Fish and Game Watch List Species      |
| SE                   | State-listed as Endangered                                     |
| ST                   | State-listed as Threatened                                     |
| SC                   | State Candidate for Endangered                                 |
| (SD)                 | State Delisted                                                 |
| County Designations: |                                                                |
| Group 1              |                                                                |
| Group 2              |                                                                |
| Group 3              |                                                                |
| MSCP                 | East County MSCP draft covered species                         |
| Other Designations:  |                                                                |
| WBWG:H               | Western Bat Working Group: High Priority                       |
| WBWG:LM              | Western Bat Working Group: Low-Medium Priority                 |
| WBWG:M               | Western Bat Working Group: Medium Priority                     |
| WBWG:MH              | Western Bat Working Group: Medium-High Priority                |
| AFS:EN               | American Fisheries Society: Endangered                         |
| AFS:TH               | American Fisheries Society: Threatened                         |
| AFS:VU               | American Fisheries Society: Vulnerable                         |
| XERCES:CI            | Xerces Society – Critically Endangered                         |

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### Notes:

<sup>2</sup> The 7-quad search includes species recorded in CNDDB or USFWS databases for the Jacumba and 6 surrounding quadrangles (Carrizo Mtn, Sweeney Pass, Sombrero Peak, In-ko-pah Gorge, Live Oak Springs, and Tierra del Sol).

<sup>3</sup> Harvester ants are a primary source of food for Blainville's horned lizards (Californiaherps.com 2014).

<sup>4</sup> Signs of termite were observed during biological surveys.

## APPENDIX F (Continued)

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# **APPENDIX G**

***Special-Status Wildlife Species Not Expected to  
Occur or Rarely Occurring in the Project Area***



## APPENDIX G

### Special-Status Wildlife Species Not Expected or Rarely Occurring in Project Area

| Scientific Name /<br>Common Name                    | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                                                                                         | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                              |
|-----------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Amphibians</i>                                   |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                   |                                  |                                                                                                                                                                              |
| <i>Anaxyrus californicus</i><br>Arroyo toad         | FE/SSC/Group 1,<br>MSCP                                  | Washes, arroyos, sandy riverbanks, riparian areas with willows, sycamores, oaks cottonwoods. Requires exposed sandy stream sides with stable terraces to burrow with scattered vegetation and calm pools with sandy/gravel bottoms for breeding. Found west of desert in coastal areas from upper Salinas River in San Luis Obispo Co. to northwestern Baja California; 0-900m(1).                                                                         | No                                                | Not expected                     | The project area lacks suitable stream habitat for this species. Arroyo toads are not known from this area and are not recorded in the CNDDDB 7-quadrant search <sup>2</sup> |
| <i>Bufo punctatus</i><br>Red spotted toad           | None/None/MSCP                                           | Rocky desert streams, oases, pools in rocky arroyos, cattle tanks, grassland, oak woodland, scrubland, river floodplains.                                                                                                                                                                                                                                                                                                                                  | No                                                | Not expected                     | The project area lacks suitable stream or similar habitat for this species. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                        |
| <i>Spea hammondi</i><br>Western spadefoot           | None/SSC/Group 2,<br>MSCP                                | Sandy/gravelly soils within mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Breeds in rain pools that do not have bullfrogs, fish, or crayfish. Found throughout Great Valley and foothills south of Redding, throughout South Coast Ranges in southern California south of Transverse Mts and west of Peninsular Mts; 0-1,365m (1). | No                                                | Low                              | The project area has limited breeding resources (temporary pools formed by winter rains). Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                          |
| <i>Rana draytonii</i><br>California Red-legged frog | FT/SSC/Group 1,<br>MSCP                                  | Humid forests, woodlands, grasslands, coastal scrub, and stream sides with plant cover. Most common in lowland and foothills. Frequently found in woods adjacent to streams. Breeds in permanent or ephemeral water sources. Ephemeral habitats require burrows or other refuges for estivation when wetlands are dry. Occurs along coast ranges south from Mendocino Co. south and in portions of Sierra Nevada and Cascades ranges; 0-1,525m (1,2).      | No                                                | Not expected                     | The project area lacks suitable wetland or stream habitat for this highly aquatic species. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                         |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                       | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup>                                          | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                       | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Batrachoseps major aridus</i><br>Desert slender<br>salamander       | FE/SE/Group 1,<br>MSCP                                                                            | Limited geographic distribution: known only from Hidden Palm Canyon and Guadalupe Canyon on east slope of Santa Rosa Mts, Riverside Co. Occurs under limestone sheets, rocks, and talus; at the base of damp, shaded locations (e.g., spring oasis, moist cliffs) without direct sunlight (1).                                                                           | No                                                | Not<br>expected                  | The project area lacks suitable habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup> and project site not within known geographic distribution.                                                                                                                                  |
| <i>Ensatina ensatina klauberi</i><br>Large-blotched<br>salamander      | None/SSC/Group 1,<br>MSCP                                                                         | Moist shaded evergreen and deciduous forests, oak woodlands, under rocks, logs, debris, especially peeled off bark. Found in peninsular ranges of southern California and eastern San Bernardino Mts. (1).                                                                                                                                                               | No                                                | Not<br>expected                  | The project area lacks suitable habitat (moist shaded woodland/forests) for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                             |
| <i>Rana muscosa</i><br>Southern mountain<br>yellow-legged frog         | FE (Population in<br>San Gabriel, San<br>Jacinto & SB Mts<br>only), NONE/SC,<br>SSC/Group 1, MSCP | Lakes, ponds, meadow streams, isolated pools, sunny riverbanks, montane riparian, lodgepole pine, subalpine conifer, and wet meadow habitats. Occurs in the Sierra Nevada from Fresno Co. to Kern Co. In southern California isolated populations exist in the San Gabriel, San Bernardino, and San Jacinto Mts; Sierra elevations range from 370 to over 3,650m (1, 2). | No                                                | Not<br>expected                  | The project area lacks suitable stream/wetland habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                              |
| <i>Reptiles</i>                                                        |                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                          |                                                   |                                  |                                                                                                                                                                                                                                                                                                             |
| <i>Coleonyx switaki</i><br>Switak's banded<br>gecko, barefoot<br>gecko | None/ST/ Group 2,<br>MSCP                                                                         | Primarily in rocky areas at the heads of canyons. Found in areas of massive rocks and rock outcrops, rock cracks and crevices. Found in Peninsular Ranges and at Scissor Crossing near Anza Borrego Desert (2).                                                                                                                                                          | No                                                | Low                              | Suitable habitat includes more boulder habitat than present on site. It also is tied to the desert eastern slopes and canyons of the Peninsular Range in San Diego and Imperial counties. Species documented in the Carrizo Mountain, In-Ko-Pah Gorge, Jacumba, and Sweeney Pass quadrangles (CNDDDB 2014). |
| <i>Sauromalus ater</i><br>Common chuckwalla                            | None/None/Group 2,<br>MSCP                                                                        | Rocky flats and hillsides, lava flows, large outcrops, creosote bush habitats. Also found in atypical places (e.g., burrows in dirt, piles of railroad ties, artificial rip-rap). Found in Mojave and Colorado deserts from desert slopes of mountains, north through Owens Valley and east to Colorado River, 0-1,800m (1).                                             | No                                                | Low                              | The project site does not include large rocky outcrops with fissures. In general, the species occurs on the eastern desert slopes and desert alluvial areas in San Diego county. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                      |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                                                | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                      | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Plestiodon skiltonianus interparietalis</i><br>Coronado skink                             | None/SSC/Group 2, MSCP                             | Grassland, woodlands, pine forests, chaparral, especially open sunny areas (e.g., clearings, edges of creeks) and rocky areas near streams with lots of vegetation. Also found in areas away from water. Occurs in inland southern California south through the north Pacific coast region of northern Baja California (1).                                             | No                                          | Low                        | Although suitable chaparral habitats are present, the project area lacks suitable moist habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                    |
| <i>Lampropeltis zonata (pulchra)</i><br>California mountain kingsnake (San Diego population) | None/SSC/Group 2, MSCP                             | Coniferous forests, oak pine woodlands, riparian woodlands, chaparral, manzanita, coastal sage scrub, wooded areas near a stream with rock outcrops, talus, or rotting logs. In central San Diego Co. peninsular range s- Laguna, Palomar, Volcan, and Hot Springs Mts., Santa Ana Mts., and in Hollywood Hills, Santa Monica Mts., 0-2,750m (1).                       | No                                          | Not expected               | Although suitable chaparral habitats are present, the project area lacks suitable stream/moist habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup> and known distribution range north of the project site (1). |
| <i>Diadophis punctatus similis</i><br>San Diego ring-necked snake                            | None/None/Group 2                                  | Prefers moist habitats, including wet meadows, rocky hillsides, gardens, farmlands, grassland, chaparral, mixed coniferous forests, woodlands. Found mainly in San Diego Co. along the coast and into the Peninsular range and into southwestern San Bernardino Co. (1).                                                                                                | No                                          | Low                        | The project area lacks suitable moist wetland habitats and limited moist situations (e.g., precipitation) for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                          |
| <i>Thamnophis hammondi</i><br>Two-striped garter snake                                       | None/SSC/ Group 1, MSCP                            | Associated with permanent or semi-permanent bodies of water in a variety of habitats: rocky areas, oak woodland, chaparral, brushland, coniferous forest. Found on Diablo Range, South Coast and Transverse ranges, and Santa Catalina Island; 0-2,400m (1, 2).                                                                                                         | No                                          | Not expected               | The project area lacks suitable wetland habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                    |
| <i>Actinemys marmorata pallida</i><br>Western pond turtle                                    | None/SSC/Group 1, MSCP                             | Ponds, rivers, streams, creeks, marshes, irrigation ditches with abundant vegetation and either rocky or muddy bottoms, woodland, forests, and grasslands. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish or sea water. Found in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and in the | No                                          | Not expected               | The project area lacks suitable wetland habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                    |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                                                                                     | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                                                               | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                   |                                                    | Mojave Desert along the Mojave River and its tributaries; 0-1,430 m (1, 2).                                                                                                                                                                                                                                                                                                                                                      |                                             |                            |                                                                                                                                                                                            |
| <i>Phrynosoma mcallii</i><br>Flat-tailed horned lizard                                                                            | None/SSC/Group 1, MSCP                             | Fine sand and sparse vegetation in desert washes and desert flats. It is probably most abundant in areas of creosote bush and is found in desert scrub, wash, succulent shrub, and alkali scrub habitats. Common in areas with high density of harvester ants and fine windblown sand, rarely occurs on dunes. Found in central Riverside, eastern San Diego and Imperial Cos., 0-180m (1, 2).                                   | No                                          | Low                        | The project area is above the recorded elevation range for this species. Species documented in the Carrizo Mtn, In-ko-pah Gorge, Sombrero Peak, and Sweeney Pass quadrangles (CDFW 2014a). |
| <i>Taricha torosa torosa</i><br>Coast range newt (Monterey Co. south only)                                                        | None/SSC/Group 2, MSCP                             | Wet forests, oak forests, chaparral, rolling grasslands; in southern California, occupies drier chaparral, oak woodland, grasslands. Coastal ranges from central Mendocino Co. south to northern San Diego Co. south to the vicinity of Boulder Creek. Found the length of the Sierra, primarily in foothills. Monterey Co. to San Diego Co. Migrations to and from breeding site may occasionally exceed 1 km; 0-1,830m (1, 2). | No                                          | Low                        | Although suitable habitat (chaparral) is present, its known range is west of the project area (1). Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                               |
| <i>Thamnophis sirtalis</i> ssp. <i>novum</i> ( <i>Thamnophis sirtalis</i> spp.)<br>South Coast garter snake (Common garter snake) | None/SSC/Group 2                                   | Permanent or semi-permanent bodies of water in a variety of habitats. Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools. Coastal plain from Ventura to San Diego Co., 0-850m (2, 3).                                                                                                                                                                                                                   | No                                          | Not expected               | The project area lacks suitable wetland habitat for this species. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                                |
| <i>Uma notata</i><br>Colorado Desert fringe-toed lizard                                                                           | None/SSC/Group 1, MSCP                             | Fine, loose, wind-blown sand dunes, dry lakebeds, sandy beaches or riverbanks, desert washes, and sparse desert scrub in Colorado and Sonoran deserts south of the Salton Sea in Imperial and San Diego Co., 0-180m (2).                                                                                                                                                                                                         | No                                          | Not expected               | The project area lacks suitable desert habitat and above known elevational range. Species range known east of project site (1). Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>  |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                 | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                        | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Birds</i>                                                  |                                                    |                                                                                                                                                                                                                                                                                                                                                                           |                                             |                            |                                                                                                                                                                                                                                                                                        |
| <i>Accipiter striatus</i> (nesting)<br>Sharp-shinned hawk     | BCC/SSC/Group 1                                    | Nests in coniferous forests, ponderosa pine, black oak, riparian deciduous, mixed conifer, Jeffrey pine; winters in lowland woodlands and other habitats. Common migrant and winter resident throughout California. Probably breeds south in Coast Ranges and at scattered locations in Transverse and Peninsular Ranges (2).                                             | Observed                                    | N/A                        | Observed during foraging (contour flight) during winter raptor surveys. Species has also been documented in the vicinity (SDNHM 2014b). Although suitable foraging habitat onsite, no suitable nesting habitat present.                                                                |
| <i>Aechmophorus occidentalis</i><br>Western grebe             | None/None/Group 1                                  | Along coast in marine subtidal and estuary waters. Uncommon to fairly common on large lakes near coast and inland at low elevations. Breed on large, marshy lakes, normally deeper than required by eared grebe. Nest on Modoc Plateau and south locally to Inyo Co.; also Sacramento National Wildlife Refuge, Salton Sea, Colorado River, and Sweetwater Reservoir (2). | No                                          | Not expected               | The project area lacks perennial water sources. This species may inhabit the project area as stopover or during the winter. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                      |
| <i>Agelaius tricolor</i> (colony)<br>Tricolored Blackbird     | BCC/SSC/Group1, MSCP                               | Breeds in emergent wetland with tall, dense cattails or tules; willow, blackberry, tall herb thickets. Feeds in grassland and cropland habitats. Found throughout Central Valley and coastal areas south of Sonoma Co. (2).                                                                                                                                               | No                                          | Not expected to nest       | The project area lacks suitable wetland habitat. Documented in the Jacumba quadrangle (CDFW 2014a) and the vicinity (SDNHM 2014b).                                                                                                                                                     |
| <i>Ammodramus savannarum</i> (nesting)<br>Grasshopper sparrow | None/SSC/Group 1, MSCP                             | Dry, dense grasslands, especially with a variety of grasses and tall forbs, scattered shrubs for singing perches. Summer resident and breeder in foothills and lowlands west of Cascade-Sierra Nevada crest from Mendocino and Trinity Cos. south to San Diego Co. In southern California, occurs on hillsides and mesas in coastal areas, breeds up to 1,500m (2).       | No                                          | Not expected               | The breeding and winter records for grasshopper sparrow are concentrated along the coastal ranges. Winter records are very rare in eastern San Diego County (Unitt 2004). Project site is also above species' elevational range. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Anas strepera</i><br>Gadwall                               | None/None/Group 2                                  | Interior valleys, wetlands, ponds, and streams. Feeds and rests in freshwater lacustrine and emergent habitats, and to a lesser extent,                                                                                                                                                                                                                                   | No                                          | Not expected               | The project area lacks perennial water sources. This species may inhabit the project area as stopover or during the                                                                                                                                                                    |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                                                                            | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                             |                                                          | estuarine and saline emergent habitats, and nests in nearby herbaceous and cropland habitats. Common in Central Valley and less common in Coast Range foothills of central and southern California. Locally common in Imperial Valley and along Colorado River, October to March. Breeds on northeastern plateau and east of Sierra Nevada (2).                                                                                                                                    |                                                   |                                  | winter. Species documented in the vicinity (SDNHM 2014b).                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <i>Campylorhynchus<br/>brunneicapillus<br/>sandiegensis</i><br>Coastal cactus wren<br>(San Diego & Orange<br>Counties only) | BCC/SSC/Group 1 ,<br>MSCP                                | Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub. In arid parts of westward-draining slopes of southern California (2).                                                                                                                                                                                                                                                                                                                      | No                                                | Not<br>expected                  | Project site is located east of the mountains, outside of the coastal range of the special-status subspecies <i>C. b. sandiegensis</i> (Shuford and Gardali 2008). Although <i>C. brunneicapillus</i> was observed on site during butterfly surveys, it was the interior, non-special-status species which also has been documented breeding in the vicinity (SDNHM 2014b). Additionally, the project site lacks suitable cactus thickets on site for the coastal subspecies. Not recorded in the CNDDB 7-quadrant search <sup>2</sup> |
| <i>Chen caerulescens</i><br>(winter)<br>Snow goose                                                                          | None/None/Group 2                                        | Fresh emergent wetlands, adjacent lacustrine waters, and nearby wet croplands, pastures, meadows, and grasslands. Occasionally found in saline (brackish) emergent wetlands and adjacent estuarine waters. Found primarily in Central Valley; less common southward in the interior but abundant in Imperial Valley and locally common along Colorado River. Found regularly only in southern California along Coast Ranges and immediate coast from mid-November to February (2). | No                                                | Not<br>expected                  | The project area lacks perennial water sources. This species may inhabit the project area as stopover or during the winter. Species documented in the vicinity (SDNHM 2014b).                                                                                                                                                                                                                                                                                                                                                          |
| <i>Ardea herodias</i><br>(nesting colony)                                                                                   | None/None/Group 2                                        | Variety of habitats, but primarily shallow estuaries and fresh and saline emergent wetlands; lakes, rivers, marshes, mudflats, estuaries, saltmarsh,                                                                                                                                                                                                                                                                                                                               | No                                                | Not<br>expected                  | The project area lacks perennial water sources. This species may inhabit the project area as stopover or during the                                                                                                                                                                                                                                                                                                                                                                                                                    |

## APPENDIX G (Continued)

| Scientific Name / Common Name                               | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                                                                          | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                                                                                |
|-------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Great blue heron                                            |                                                    | riparian habitats. Found throughout most of California. Few rookeries in southern California; more numerous in northern California (2).                                                                                                                                                                                                                                                                                                     |                                             |                            | winter. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                                   |
| <i>Asio flammeus</i> (nesting)<br>Short-eared owl           | None/SSC/ Group 2                                  | Open areas with few trees, such as grasslands, prairies, dunes, meadows, irrigated lands, saline and fresh emergent wetlands. Breeds in coastal areas in Del Norte and Humboldt Cos., San Francisco Bay Delta, northeastern Modoc plateau, east side of Sierra from Lake Tahoe south to Inyo Co., and San Joaquin Valley. Uncommon winter migrant in southern California, and widespread during winter in Central Valley and coastline (2). | No                                          | Not expected               | The project area lacks suitable habitat. Additionally, the project area is outside of the typical winter range for this species, where it occurs near the coastline (Zeiner et al. 1990). Not recorded in the CNDDB 7-quad search <sup>2</sup> |
| <i>Asio otus</i> (nesting)<br>Long-eared owl                | None/SSC/Group 1, MSCP                             | Riparian, live oak thickets, other dense stands of tree. Uncommon winter visitor in southern California deserts and Central Valley; uncommon resident throughout the rest of the state (2).                                                                                                                                                                                                                                                 | No                                          | Not expected               | Although species was documented in the Tierra del Sol quadrangle (CDFW 2014a), the project area lacks suitable riparian, oak thickets, or other dense stands of trees.                                                                         |
| <i>Aythya americana</i> (nesting)<br>Redhead                | None/SSC/Group 2                                   | Lacustrine waters, foothills and coastal lowlands, and along the coast and Colorado River. Nests in fresh emergent wetland bordering open water. Found south of Modoc Co. to Mono Co., Central Valley, Monterey Co. south to Ventura Co.; breeds in Central Valley, eastern Kern Co., coastal southern California, and Salton Sea (2).                                                                                                      | No                                          | Not expected               | Although species documented in the vicinity (SDNHM 2014b), the project area lacks open perennial water sources.                                                                                                                                |
| <i>Branta canadensis</i><br>Canada goose                    | None/None/Group 2                                  | Lakes, fresh emergent wetlands, moist grasslands, croplands, pastures, and meadows. Winter migrant throughout Central Valley, Salton Sea, northeastern California, also along Colorado River (2).                                                                                                                                                                                                                                           | No                                          | Low                        | Although species documented in the vicinity (SDNHM 2014b), the project area lacks perennial water sources. This species may inhabit the project area as stopover or during the winter.                                                         |
| <i>Bucephala islandica</i> (nesting)<br>Barrow's golden eye | None/SSC/Group 2                                   | Estuarine (lagoons and bays) and brackish lacustrine waters. Found along central California coast, San Francisco Bay, Marin and Sonoma Cos., Colorado River (2).                                                                                                                                                                                                                                                                            | No                                          | Not expected               | The project area lacks perennial water sources. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                           |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                       | Status (Federal/ State/ County/Other) <sup>1</sup>                                                          | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                               | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                                                                     |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Buteo lineatus</i><br>Red-shouldered hawk                        | None/None/Group 1                                                                                           | Riparian and woodland habitats interspersed with swamps and wetlands found along coast, southern deserts, and in Central Valley, 0-1,500m (2).                                                                                                                                                                                   | No                                          | Not expected               | Although species documented in the vicinity (SDNHM 2014b), project area lacks riparian/wetland and woodland habitats.                                                                                                               |
| <i>Buteo swainsoni</i><br>(nesting)<br>Swainson's hawk              | BCC/ST/Group 1, MSCP                                                                                        | Forages in grasslands or suitable grain or alfalfa fields or livestock pastures; breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in Central Valley (2).                                                                                                                               | No                                          | Not expected               | Expected only as an occasional, temporary visitor during migration. Species not known to nest or winter in San Diego County. No suitable nesting or foraging habitat present. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Butorides virescens</i><br>Green heron                           | None/None/Group 2                                                                                           | Nests and roosts in valley foothill and desert riparian habitats; feeds in fresh emergent wetland, lacustrine, slow-moving riverine habitats. Resident in foothills and lowlands throughout California; common August to March in southern coastal ranges, in summer along Colorado River, and found all year at Salton Sea (2). | No                                          | Not expected               | Lack of suitable freshwater habitat. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                          |
| <i>Cerorhinca monocerata</i> (nesting colony)<br>Rhinceros auklet   | None/WL/Group 2 (for Oceanic - Winter)                                                                      | Marine pelagic waters. Nests in a burrow on undisturbed, forested or unforested islands, and probably in cliff caves. Found off northern and central California, and south of northern Channel Islands. Breeds off Del Norte and Humboldt Cos., and Farallon Islands (2).                                                        | No                                          | Not expected               | The project area lacks large bodies of water and suitable nesting habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                   |
| <i>Charadrius nivosus nivosus</i> (nesting)<br>Western snowy plover | FT (Pacific coastal population), BCC (non-listed subspecies)/SSC (coastal and interior populations)/Group 1 | Sandy marine and estuarine shores. Nests on these habitats and salt pond levees. Nesting areas in Salton Sea, Mono Lake, shores of alkali lakes of northeastern California, Central Valley, and southeastern deserts (2).                                                                                                        | No                                          | Not expected               | The project area lacks suitable nesting habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                             |
| <i>Charadrius montanus</i> (wintering)<br>Mountain plover           | FPT, BCC/SSC/Group 2                                                                                        | Nests in open, shortgrass prairies or grasslands; winters in shortgrass plains, plowed fields, open sagebrush, and sandy deserts. Winters in short grasslands and plowed fields of Central Valley below 1,000m (2).                                                                                                              | No                                          | Not expected               | The project area lacks suitable grassland nesting habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                   |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                                        | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                         | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Chlidonias niger</i><br>(nesting colony)<br>Black tern                            | None/SSC/Group 2<br>(Non-breeder)                  | Freshwater lakes, marshes, ponds, coastal lagoons. Breeds in freshwater habitats but common on bays, salt ponds, river mouths, pelagic waters during spring and fall migration. Found throughout fresh emergent wetlands of California (2).                                                                                                | No                                          | Not expected               | The project area lacks suitable freshwater habitats for this species. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                       |
| <i>Circus cyaneus</i><br>(nesting)<br>Northern harrier                               | None/SSC/Group 1,<br>MSCP                          | Open wetlands (nesting), pasture, old fields, dry uplands, grasslands, rangelands, coastal sage scrub. Resident of northeastern plateau and coastal areas; less common resident in Central Valley. Breeds at marsh edge in shrubby vegetation in Central Valley and Sierra Nevada (0-1700m), and northeastern California (up to 800m) (2). | No                                          | Not expected               | Species documented in the vicinity (SDNHM 2014b). The species is only expected as a winter visitor in the more open area of scrub and chaparral communities on site. The project area lacks suitable wetlands for breeding. Not recorded in the CNDDB 7-quad search <sup>2</sup> |
| <i>Coccyzus americanus occidentalis</i><br>(nesting)<br>Western yellow billed cuckoo | FC, BCC/SE/Group 1                                 | Dense, wide riparian woodlands and forest with well-developed understories. Valley foothill and desert riparian habitats scattered throughout California – Colorado River, Sacramento and Owens Valleys, South Fork of the Kern River, Santa Ana River, and Amargosa River (2).                                                            | No                                          | Not expected               | The project area lacks suitable riparian habitat for this species. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                          |
| <i>Contopus cooperi</i><br>(nesting)<br>Olive-sided flycatcher                       | BCC/SSC/Group 2                                    | Summer resident in a wide variety of forest and woodland habitats. Preferred nesting habitats include mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir, and lodgepole pine. Found throughout California excluding deserts, Central Valley and other lowland valleys and basins, below 2,800m (2).                    | No                                          | Not expected               | Although species documented in the vicinity (SDNHM 2014b), the project area lacks suitable woodland habitat for this species.                                                                                                                                                    |
| <i>Cypseloides niger</i><br>(nesting)<br>Black swift                                 | BCC/SSC/Group 2<br>(non-breeder)                   | Nests in moist crevices or caves on sea cliffs or near waterfalls in deep canyons; forages over many habitats. Nests in Sierra Nevada, Cascade Range, San Gabriel, San Bernardino, San Jacinto Mts., coastal bluffs and mountains from San Mateo Co. south to San Luis Obispo Co. (2).                                                     | No                                          | Not expected               | The project area lacks suitable moist cliffs for nesting. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                   |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                                 | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                        |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Dendrocygna bicolor</i> (nesting)<br>Fulvous whistling-duck                | None/SSC/ Group 2                                  | Fresh emergent wetlands, shallow lacustrine and quiet riverine waters; feeds in wet croplands and pastures. Nests in dense wetlands of cattails in Imperial Valley along south end of Salton Sea (2).                                                                                                                                                                             | No                                          | Not expected               | The project area lacks suitable wetland habitat for this species. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                 |
| <i>Egretta rufescens</i><br>Reddish egret                                     | None/None/Group 2                                  | Forages in saltmarsh, mudflats, coastal lagoons, barren sand, salt ponds; nests on natural islands or man-made dredge spoil islands occasionally on coastal mainland. Found in southwestern and central coastal California (4).                                                                                                                                                   | No                                          | Not expected               | The project area lacks suitable saltmarsh habitat for this species. Not recorded in the CNDDB 7-quad search <sup>2</sup>                               |
| <i>Elanus leucurus</i> (nesting)<br>White-tailed kite                         | None/FP/Group 1, MSCP                              | Open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian, herbaceous and open stages of most habitats in cismontane California, near agricultural areas. Found in coastal and valley lowlands of California (2).                                                                                                                                    | No                                          | Not expected               | Project location is generally too high in elevation and lacks suitable nesting habitat. Not recorded in the CNDDB 7-quad search <sup>2</sup>           |
| <i>Empidonax traillii eximius</i> (nesting)<br>Southwestern willow flycatcher | FE/SE/Group 1, MSCP                                | Riparian obligate - Riparian woodlands along streams and rivers with mature, dense tree or shrub cover where surface water or soil moisture present; may nest in habitats variable in dominant plant species (both native and exotic). In California, breeding range includes southern California; from near sea level California to more than 2,600m in Arizona/SW Colorado (5). | No                                          | Not expected               | The project area lacks suitable riparian habitat for this species. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                |
| <i>Falco columbarius</i> (wintering)<br>Merlin                                | None/WL/Group 2                                    | Coastlines, open grasslands, savannahs, woodlands, lakes, wetlands, montane hardwood-conifer habitats, ponderosa pine. Found throughout western half of state below 1,500m (2).                                                                                                                                                                                                   | No                                          | Not expected               | No suitable habitat present on site. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                              |
| <i>Falco peregrinus anatum</i> (nesting)<br>American peregrine falcon         | (FD), BCC/(SD), FP/Group 1 Endemic                 | Nests in woodland, forest, coastal habitats along coast north of Santa Barbara and in Sierra Nevada, and other mountains of northern California. Winters in Central Valley, and is found in other riparian areas and coastal/inland wetlands (2).                                                                                                                                 | No                                          | Not expected               | No suitable nesting habitat present and project area lacks wintering (riparian/wetland) habitats. Not recorded in the CNDDB 7-quad search <sup>2</sup> |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                                   | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                            | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                 |
|---------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Fratercula cirrhata</i><br>(nesting colony)<br>Tufted puffin                 | None/SSC/Group 2 (Oceanic)                         | Rocky outcroppings on islands, not necessarily near the nest, and on the ocean. Common at nesting colonies, and on nearby marine pelagic and subtidal waters. Nests on islands and, less commonly, on coastal cliffs. Found along coast from Prince Island in Del Norte Co. to Point Conception (2).                                          | No                                          | Not expected               | No suitable coastal cliffs to support nesting, found within the project area. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                         |
| <i>Gavia immer</i><br>(nesting)<br>Common loon                                  | None/SSC/Group 2 (winter)                          | Estuarine and subtidal marine habitats along entire coast (Sept-May). Uncommon on large, deep lakes in valleys and foothills; common migrant along coast, including offshore, in November and May (2).                                                                                                                                        | No                                          | Not expected               | The project area lacks suitable wetland habitat for this species. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                     |
| <i>Grus canadensis canadensis</i><br>(wintering)<br>Lesser sandhill crane       | None/SSC/Group 2 (full species)                    | Wet meadow, shallow lacustrine, and fresh emergent wetland habitats during summer; annual and perennial grassland habitats, moist croplands, and open, emergent wetlands during winter. Winters in San Joaquin, Imperial valleys; Carrizo Plain, Brawley, and Blythe (2).                                                                     | No                                          | Not expected               | The project area lacks suitable wetland habitat for this species. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                     |
| <i>Grus canadensis tabida</i> (nesting and wintering)<br>Greater sandhill crane | None/ST, FP/Group 2 (full species)                 | Wet meadow, shallow lacustrine, and fresh emergent wetland habitats during summer; annual and perennial grassland habitats, moist croplands, and open, emergent wetlands during winter. Breeds in Siskiyou, Modoc, Lassen Cos., and Sierra Valley. Winters in Sacramento and San Joaquin valleys. Was more common in southern California (2). | No                                          | Not expected               | The project area lacks suitable wetland habitat for this species. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                     |
| <i>Haliaeetus leucocephalus</i><br>(nesting and wintering)<br>Bald eagle        | (FD), BCC/SE, FP/Group 1 (winter)                  | Large bodies of water and flowing rivers with abundant fish, with adjacent snags or other perches; breeds in northern California and is found during winter at few locations throughout southern California (2).                                                                                                                              | No                                          | Not expected               | There are no winter records for this species in the vicinity (Unitt 2004) and there are no lakes in the project area. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup> |
| <i>Icteria virens</i><br>(nesting)<br>Yellow-breasted chat                      | None/SSC/Group 1                                   | Dense, relatively wide riparian woodlands and thickets of willows, vine tangles and dense brush. Coastal California, foothills of Sierra                                                                                                                                                                                                      | No                                          | Not expected               | Although species is documented in the vicinity (SDNHM 2014b), the project area lacks suitable wetland habitat for this                                                          |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                  | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                                                                     | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                                              |
|----------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                |                                                    | Nevada. Breeds locally on coast in southern California and very locally inland, at elevations up to 1450m in valley foothill riparian, and up to 2050m east of Sierra Nevada in desert riparian habitats (2).                                                                                                                                                                                                                          |                                             |                            | species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                               |
| <i>Ixobrychus exilis</i> (nesting)<br>Least bittern            | BCC/SSC/Group 2, MSCP                              | Dense emergent wetland vegetation, sometimes interspersed with woody vegetation and open water. Nests in emergent wetlands. Common summer resident at Salton Sea and Colorado River. Breeds locally in Owens Valley and Mojave Desert and uncommon in emergent wetlands of cattails and tules in San Diego Co., and Sacramento and San Joaquin Valleys (2).                                                                            | No                                          | Not expected               | The project area lacks suitable wetland habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                      |
| <i>Junco hyemalis caniceps</i> (nesting)<br>Gray-headed junco  | None/WL/Group 2 (winter-rare)                      | Found in forests and woodlands from montane hardwood-conifer forests up through alpine dwarf-shrub habitats. Breeds locally in White and Grapevine Mts., and on Clark Mt. in southeastern California. Species is more common east of Sierra Nevada during winter (2).                                                                                                                                                                  | No                                          | Not expected               | The project area lacks suitable nesting habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                      |
| <i>Leucophaeus atricilla</i> (nesting colony)<br>Laughing gull | None/WL/Group 2 (non breeding, very rare)          | Flocks rest on salt-pond dikes and sandpits. Breeds along seacoasts, bays, salt marshes, dunes, beaches, estuaries, rarely on large inland bodies of water. Formerly nested at southern end of Salton Sea (4).                                                                                                                                                                                                                         | No                                          | Not expected               | Habitat typical for supporting this species is not present on-site. Individuals may be detected during migration, but there is low potential for that. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Larus californicus</i> (nesting colony)<br>California gull  | None/WL/Group 2 (non breeding)                     | Along the coast: sandy beaches, mudflats, rocky intertidal and pelagic areas of marine and estuarine habitats, fresh and saline emergent wetlands. Inland: lacustrine, riverine, and cropland habitats, landfill dumps, and open lawns in cities. Nests in alkali and freshwater lacustrine habitats; adults roost along shorelines, landfills, pastures, and on islands. Nest along northeastern plateau region and at Mono Lake (2). | No                                          | Not expected               | There are no bodies of water or landfills to host this species on-site. A migrant could pass over the site, but it is unlikely that it would stop. Not recorded in the CNDDDB 7-quad search <sup>2</sup>     |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                            | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                    | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                       |
|-----------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Laterallus<br/>jamaicensis<br/>coturniculus</i><br>California black rail | BC/ST, FP/Group 2                                        | Saline, brackish, and fresh emergent wetlands mostly in central coastal California (2).                                                                                                                                                                                                               | No                                                | Not expected                     | Habitat typical for supporting this species is not present on-site. Individuals could be detected during migration, but there is low potential for that. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>    |
| <i>Melanerpes lewis</i><br>(winter)<br>Lewis' woodpecker                    | BCC/None/Group 1                                         | Open oak savannahs, broken deciduous and coniferous habitats. Eastern slopes of coast ranges south to San Luis Obispo Co., winters in Central Valley, Modoc Plateau, and Transverse and other ranges in southern California. Breeds eastern slopes of coast ranges, Sierra Nevada, Cascade Range (2). | No                                                | Not expected                     | No suitable habitats present on site. Additionally, breeding is not expected as this species is only found in San Diego County during migration and winter. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup> |
| <i>Mycteria Americana</i><br>(Non-breeding, very rare) Wood stork           | None/SSC/Group 2                                         | Shallow, relatively warm waters with fish for prey. Nests colonially. Found at south end of Salton Sea, San Diego Wild Animal Park (2).                                                                                                                                                               | No                                                | Not expected                     | Habitat typical for supporting this species is not present on-site. Individuals could be detected during migration, but there is low potential for that. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>    |
| <i>Numenius americanus</i> (nesting)<br>Long-billed curlew                  | BCC/WL/Group 2<br>(non-breeding)                         | Nests in upland shortgrass prairies and wet meadows in northeast California; winters in coastal estuaries, open grasslands and croplands along California coast, and in Central and Imperial valleys (2).                                                                                             | No                                                | Not expected                     | Habitat typical for supporting this species is not present on-site. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                                                         |
| <i>Oceanodroma furcata</i><br>(nesting colony)<br>Fork-tailed storm petrel  | None/SSC/Group 2<br>(Ocean)                              | Visitor on open ocean along the entire coast; found in bays and harbors particularly after storms. Breeds on islets in Del Norte and Humboldt Cos (2).                                                                                                                                                | No                                                | Not expected                     | Habitat typical for supporting this species is not present on-site. Individuals could be detected during migration, but there is low potential for that. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>    |
| <i>Oceanodroma homochroa</i> (nesting colony)<br>Ashy storm petrel          | BCC/SSC/Group 2<br>(Ocean)                               | Open sea. Nests in natural cavities and sea caves, mainly talus but also larger rock. Resident of offshore waters from Cape Mendocino to northern Baja California, Mexico. Breeds on offshore islands from Southeast Farallon Island to Los Coronados (2).                                            | No                                                | Not expected                     | Habitat typical for supporting this species is not present on-site. Individuals could be detected during migration, but there is low potential for that. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>    |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                                        | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                       | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                                                |
|--------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Oceanodroma melania</i> (nesting colony)<br>Black storm petrel                    | None/SSC/Group 2 (Ocean)                           | Open sea from Monterey Bay south during April to October. Nests in burrows and rock cavities on Santa Barbara Island and Sutil Island (2).                                                                                                                                                                                                               | No                                          | Not expected               | Habitat typical for supporting this species is not present on-site. Individuals could be detected during migration, but there is low potential for that. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Oreothylpis luciae</i> (nesting)<br>Lucy's warbler                                | BCC/SSC/Group 1, MSCP                              | Desert wash and desert riparian habitats, especially dominated by mesquite; saltcedar and other thickets. Breeds along Colorado River, common locally in a few other desert areas, rare near Salton Sea. Rare transient in other southern interior locations and rare fall transient along the coast, mainly in San Diego Co. (2).                       | No                                          | Not expected               | The project area lacks suitable riparian habitat. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                        |
| <i>Oreortyx pictus eremophilus</i><br>Mountain quail                                 | None/ None/Group 2                                 | Dense montane chaparral and brushy areas within coniferous forest, pinyon-juniper-yucca associations; uses shrubs, brush stands and trees on steep slopes for cover in most major montane habitats of the state (2).                                                                                                                                     | No                                          | Low                        | Dense habitat typically used by this species is not present. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                             |
| <i>Pandion haliaetus</i> (nesting; rarely breeds in San Diego)<br>Osprey             | None/ WL/Group 1                                   | Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats (primarily ponderosa pine through mixed conifer), but widely observed along the coast. Breeds from Cascade Ranges south to Lake Tahoe and along northwest coast. Uncommon breeder along southern Colorado River. Uncommon along coast of southern California (2). | No                                          | Not expected               | Habitat typical for supporting this species is not present on-site. Individuals could be detected during migration, but there is low potential for that. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Passerculus guttatus [sandwichensis] beldingi</i> /<br>Belding's savannah sparrow | None/SE/Group 1                                    | Scattered southern coastal wetlands in southwestern California (2).                                                                                                                                                                                                                                                                                      | No                                          | Not expected               | The project area lacks suitable saltmarsh habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                      |
| <i>Passerculus rostratus [sandwichensis] rostratus</i> (wintering)                   | None/SSC/Group 2                                   | Grassland, saline emergent wetlands from central coastal and southern California; Santa Cruz, Morro Bay, San Miguel Island, San                                                                                                                                                                                                                          | No                                          | Not expected               | The project area lacks suitable saltmarsh habitat for this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                      |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                                                                               | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                               | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Large-billed<br>savannah sparrow                                                                                               |                                                          | Clemente Island, San Diego (2, 4).                                                                                                                                                                                                                                                               |                                                   |                                  |                                                                                                                                                                                                                                |
| <i>Pelecanus<br/>erythrorhynchos</i><br>(nesting colony)<br>American white<br>pelican                                          | None/SSC/Group 2<br>(winter)                             | Open water, coastal bays, large inland lakes.<br>Nests at large lakes in Klamath Basin. Common<br>migrant at Salton Sea, Colorado River and rare<br>during winter at Salton Sea, Morro Bay, San<br>Diego Bay (2).                                                                                | No                                                | Not<br>expected                  | Habitat typical for supporting this species<br>is not present on-site. Individuals could<br>be detected during migration, but there is<br>low potential for that. Not recorded in the<br>CNDDDB 7-quadrant search <sup>2</sup> |
| <i>Pelecanus<br/>occidentalis<br/>californicus</i><br>(nesting colony and<br>communal roosts)<br>Brown pelican<br>(California) | (FD)/(SD), FP/Group<br>2                                 | Open sea, large water bodies, coastal bays and<br>harbors, estuarine, marine subtidal, and marine<br>pelagic waters along coast and breeds on<br>Channel Islands (2).                                                                                                                            | No                                                | Not<br>expected                  | Habitat typical for supporting this species<br>is not present on-site. Individuals could<br>be detected during migration, but there is<br>low potential for that. Not recorded in the<br>CNDDDB 7-quadrant search <sup>2</sup> |
| <i>Phalacrocorax auritus</i><br>(nesting colony)<br>Double-crested<br>cormorant                                                | None/WL/Group 2<br>(non-breeding)                        | Lakes, rivers, reservoirs, estuaries, ocean; nests<br>in tall trees, rock ledges on cliffs, rugged slopes.<br>Resident along coast and inland waters.<br>Common August to May at Salton Sea and<br>Colorado River reservoirs, also found south of<br>San Luis Obispo Co. and Central Valley (2). | No                                                | Not<br>expected                  | Habitat typical for supporting this species<br>is not present on-site. Individuals could<br>be detected during migration, but there is<br>low potential for that. Not recorded in the<br>CNDDDB 7-quadrant search <sup>2</sup> |
| <i>Piranga rubra</i><br>(nesting)<br>Summer tanager                                                                            | None/SSC/Group 2                                         | Nests in desert riparian woodland dominated by<br>cottonwoods and willows; winter habitats include<br>parks and residential areas. Found along lower<br>Colorado River and locally in southern California<br>deserts (2).                                                                        | No                                                | Not<br>expected                  | Lack of suitable habitat within the project<br>area and outside of the recorded<br>breeding range for this species. Not<br>recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                               |
| <i>Plegadis chihi</i><br>(nesting colony)<br>White-faced Ibis                                                                  | None/WL/Group 1                                          | Nests in marsh; winter foraging in shallow<br>lacustrine waters, muddy ground of wet<br>meadows, marshes, ponds, lakes, rivers, flooded<br>fields and estuaries. Uncommon summer<br>resident in areas of southern California (esp.<br>Salton Sea area), rare visitor to Central Valley<br>(2).   | No                                                | Not<br>expected                  | Habitat typical for supporting this species<br>is not present on-site. Not recorded in the<br>CNDDDB 7-quadrant search <sup>2</sup>                                                                                            |
| <i>Poliophtila californica</i>                                                                                                 | FT/SSC/Group 1,                                          | Coastal sage scrub, coastal sage scrub-<br>chaparral mix, coastal sage scrub-grassland                                                                                                                                                                                                           | No                                                | Not                              | The project area lacks suitable habitat<br>and is well east of the recorded range for                                                                                                                                          |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                             | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                        | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                 |
|------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>californica</i><br>Coastal California<br>gnatcatcher                      | MSCP                                                     | ecotone, riparian in late summer. Found from eastern Orange and southwestern Riverside Cos. south through coastal foothills of San Diego Co. (2).                                                                                                                                                         |                                                   | expected                         | this species. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                             |
| <i>Progne subis</i><br>(nesting)<br>Purple martin                            | None/SSC/County 1,<br>MSCP                               | Nests in tall sycamores, pines, oak woodlands, coniferous forest; forages over riparian, forest and woodland. Found throughout the state in wooded, low-elevation habitats. Rare and local breeder in the south in mountain ranges and along coast (2).                                                   | No                                                | Not<br>expected                  | No suitable habitat present on site. Individuals could be detected during migration, but there is low potential for that. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Pyrocephalus rubinus</i><br>(nesting)<br>Vermillion flycatcher            | None/SSC/Group 1<br>(for <i>P.r.flammeus</i> ) ,<br>MSCP | Nesters inhabit cottonwood, willow, mesquite, and other vegetation in desert riparian habitat adjacent to irrigated fields, irrigation ditches, pastures and other open, mesic areas in isolated patches. Found along Colorado River, especially near Blythe, Riverside Co. (2).                          | No                                                | Not<br>expected                  | No suitable riparian/mesic habitat on site. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                               |
| <i>Rallus longirostris</i><br><i>levipes</i><br>Light-footed clapper<br>rail | FE/SE, FP/Group 1                                        | Coastal saline emergent wetlands along southern California from Santa Barbara Co. to San Diego Co. (2).                                                                                                                                                                                                   | No                                                | Not<br>expected                  | The project area lacks suitable wetland habitat. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                          |
| <i>Riparia riparia</i><br>(nesting)<br>Bank swallow                          | None/ST/Group 1                                          | Riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes; most breeding occurs along banks of Sacramento and Feather Rivers (2).                                                                               | No                                                | Not<br>expected                  | The project area lacks suitable nesting habitat. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                          |
| <i>Rynchops niger</i><br>(nesting colony)<br>Black skimmer                   | BCC/SSC/Group 1                                          | Roosting takes place on sandy beaches or gravel bars. Rarely alights on water. Visitor to coastal estuaries and river mouths. Summer resident at Salton Sea. Yearlong resident at San Diego Bay. Known infrequently from additional interior locations on Colorado River and Lakeview, Riverside Co. (2). | No                                                | Not<br>expected                  | The project area lacks suitable nesting habitat. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                          |
| <i>Setophaga petechia</i><br><i>brewsteri</i> [Aestiva                       | BCC/SSC/Group 2,<br>MSCP                                 | Nests in lowland and foothill riparian woodlands; montane chaparral, open ponderosa pine, mixed                                                                                                                                                                                                           | No                                                | Not<br>expected                  | Although species documented in the vicinity (SDNHM 2014b), the project area                                                                                                     |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                                            | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                      | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                             |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| group]<br>(nesting)<br>Yellow warbler<br>(California)                                       |                                                          | conifer habitats up to 2500m; winters in a variety of habitats. Breeds from coast range in Del Norte Co., east to Modoc plateau, south to Santa Barbara and Ventura Cos., western slope of Sierra Nevada south to Kern Co.; also breeds in ranges in San Diego Co. (2). |                                                   |                                  | lacks suitable riparian habitat for this species. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                                 |
| <i>Sternula antillarum browni</i> (nesting colony)<br>California least tern                 | FE/SE, FP/Group 1                                        | Breeding colonies located in marine and estuarine shores in southern California, and in San Francisco Bay in abandoned salt ponds and estuarine shores. Feeds in nearby waters. Are migratory to California (2).                                                        | No                                                | Not expected                     | The project area lacks suitable nesting habitat. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                                  |
| <i>Strix occidentalis occidentalis</i><br>California spotted owl                            | BCC /SSC/Group 1, MSCP                                   | Dense, old-growth, multi-layered mixed conifer, redwood and Douglas-fir habitats in northern California; oak and oak-conifer habitats in southern California; 0-2,300m (2).                                                                                             | No                                                | Not expected                     | No suitable habitat in project area. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                                              |
| <i>Synthliboramphus hypoleucus</i> (nesting colony)<br>Xantus' murrelet, Guadalupe murrelet | FC, BCC/ST/Group 2 (oceanic) / WL BCC                    | Offshore waters. Rare visitor to southern offshore waters in late summer and fall (2).                                                                                                                                                                                  | No                                                | Not expected                     | The project area lacks large bodies of water for this species Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                     |
| <i>Thalasseus elegans</i> (nesting colony)<br>Elegant Tern                                  | None/WL/Group 1                                          | Coastal waters, estuaries, large bays and harbors, mudflats; rarely occur offshore and never found inland. Found along coastal California, most common in southern California, not found north of Marin Co. (2).                                                        | No                                                | Not expected                     | The project area lacks suitable coastal habitat for this species. Project is not located along the coast. Species not recorded in the CNDDDB 7-quadrant search <sup>2</sup> |
| <i>Toxostoma bendirei</i><br>Bendire's thrasher                                             | BCC/SSC/Group 2 (non-breeding)                           | Flat areas of desert succulent shrub and Joshua tree habitats in Mojave desert area of San Bernardino and western Kern Cos. (2).                                                                                                                                        | No                                                | Not expected                     | The project area lacks suitable desert succulent scrub habitat for this species. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                  |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                                | Status (Federal/ State/ County/Other) <sup>1</sup>             | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site    | Factual Basis For Determination                                                                                                                                                                                              |
|------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Toxostoma lecontei</i><br><i>lecontei</i><br>Le Conte's thrasher          | None/None/Group 2 (for subspecies <i>T.l.lecontei</i> ) , MSCP | Open desert wash, desert scrub, alkali desert scrub, desert succulent shrub habitats, Joshua tree habitat with scattered shrubs. Uncommon to rare, local resident in southern California deserts from southern Mono Co. to the Mexican border and in San Joaquin Valley (2).                                      | No                                          | Low(nesting and non-breeding) | Suitable desert scrub habitats not present. Suitable habitat occurs in the more eastern and northern desert areas. Documented north of the project site (SDNHM 2014b). Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Toxostoma crissale</i><br>Crissal thrasher                                | None/SSC/Group 1, MSCP                                         | Dense thickets of shrubs or low trees in desert riparian and desert wash habitats. Also, dense sagebrush and other shrubs in washes within juniper and pinyon-juniper habitats up to 1, 800m. Common in Colorado River Valley; less common in eastern Mojave Desert, Imperial, Coachella and Borrego valleys (2). | No                                          | Not expected                  | The project area lacks suitable desert riparian habitat for this species. The species range is located east of the project site (Zeiner et al. 1990). Not recorded in the CNDDDB 7-quad search <sup>2</sup>                  |
| <i>Vireo bellii pusillus</i><br>(nesting)<br>Least Bell's vireo              | FE/SE/Group 1, MSCP                                            | Willows and low, dense valley foothill riparian habitat and lower portions of canyons; along western edge of deserts in desert riparian habitat, 0-600m. Found in San Benito and Monterey Cos., and coastal southern California from Santa Barbara Co. south (2).                                                 | No                                          | Not expected                  | Although documented in the Carrizo Mountain and Sombrero Peak quadrangles (CDFW 2014a), no suitable riparian habitat is present.                                                                                             |
| <i>Xanthocephalus xanthocephalus</i><br>(nesting)<br>Yellow-headed blackbird | None/ SSC/ MSCP                                                | Nests in freshwater emergent wetlands with dense vegetation and deep water; often along the borders of lakes or ponds.                                                                                                                                                                                            | No                                          | Not expected                  | No suitable wetland or similar habitats in project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                               |
| <i>Mammals</i>                                                               |                                                                |                                                                                                                                                                                                                                                                                                                   |                                             |                               |                                                                                                                                                                                                                              |
| <i>Bassariscus astutus</i><br>Ringtail                                       | None/None/Group 2, MSCP                                        | Mixed forests and shrublands near rocky areas or riparian habitats. Forages near water and is seldom found more than 1 km from a water source. Is widely distributed throughout California (2).                                                                                                                   | No                                          | Not expected                  | No suitable forest and riparian habitat found on site. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                 |
| <i>Choeronycteris mexicana</i><br>Mexican long-tongued bat                   | None/SSC/Group 2/WBWG:M                                        | Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings. Summer resident in San Diego Co. (2).                                                                                                                                      | No                                          | Low                           | No suitable roosting habitat found within the project area. Species' distribution along western San Diego County (Zeiner et al. 1990). Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                 |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                                  | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                     | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Corynorhinus townsendii</i><br>Townsend's big-eared bat                     | None/SC/Group 2, MSCP/ WBWG:H                      | Mesic habitats, gleans from brush or trees or feeds along habitat edges. Found in all habitats but subalpine and alpine throughout California (2).                                                                                                                                                                                                     | No                                          | Low                        | Project area is dry climate with limited suitable forage habitat. Documented in the Sweeney Pass quadrangle (CDFW 2014a).                                                                                                                 |
| <i>Dipodomys merriami collinus</i><br><i>Earthquake Merriam's kangaroo rat</i> | None/ None/ MSCP                                   | Riversidean alluvial fan sage scrub, flood plains, sandy and sandy loam soils                                                                                                                                                                                                                                                                          | No                                          | Not expected               | No suitable habitat present on site. Although <i>Dipodomys</i> sp. documented onsite during butterfly surveys, this subspecies was not recorded in the CNDDDB 7-quad search <sup>2</sup> .                                                |
| <i>Dipodomys stephensi</i><br>Stephens' kangaroo rat                           | FE/ST/Group 1, MSCP                                | Open habitat, grassland, sparse coastal sage scrub, sandy loam and loamy soils with low clay content; gentle slopes (<30%) and sparse vegetative cover. Found around San Jacinto Valley (2).                                                                                                                                                           | No                                          | Not expected               | Site is outside of the species range, and no suitable grassland habitat present on site. Although <i>Dipodomys</i> sp. documented onsite during butterfly surveys the species was not recorded in the CNDDDB 7-quad search <sup>2</sup> . |
| <i>Eumops perotis californicus</i><br>Greater western mastiff bat              | None/SSC/Group 2/ WBWG:H                           | Occurs in many open, semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, and more. Roosts in crevices in cliff faces, high buildings, trees, and tunnels (6).                                                                                                                                  | No                                          | Low                        | Minimal roosting habitat found within the project area. Site is slightly above the known upper elevation limit for the species. Documented in the Sweeney Pass quadrangle (CDFW 2014a).                                                   |
| <i>Lasiurus blossevillei</i><br>Western red bat                                | None/SSC/Group 2/ WBWG:H                           | Prefers edges with trees for roosting and open areas for foraging. Roosts in woodlands and forests. Forages over grasslands, shrublands, woodlands, forests, and croplands. Found south of Shasta Co. to Mexican border, and west of the Sierra Nevada/Cascade crest. In winter, occupies coastal regions and lowlands south of San Francisco Bay (2). | No                                          | Low                        | No suitable roosting habitat found within the project area; low potential to forage on site. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                        |
| <i>Lasiurus xanthinus</i><br>Western yellow bat                                | None/SSC/None/ WBWG:H                              | Uncommon in California, known only in Los Angeles and San Bernardino Co. south to the Mexican border. Recorded below 2000 ft in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts and feeds in, and near, palm oases and riparian habitats (2)                                                                   | No                                          | Low                        | No suitable oasis or riparian habitat on site. Although documented in the Sweeney Pass quadrangle (CDFW 2014a), project area is also above the documented known range for this species (below 2000 ft).                                   |

## APPENDIX G (Continued)

| Scientific Name / Common Name                                          | Status (Federal/ State/ County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                | Verified On Site (Direct/Indirect Evidence) | Potential To Occur On Site | Factual Basis For Determination                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Myotis yumanensis</i><br>Yuma myotis                                | None /None/Group 2/<br>WBWG:LM                     | Closely tied to open water which is used for foraging; open forests and woodlands are optimal habitat throughout California, 0-3,300m (2).                                                                                                                                                                                                                                        | No                                          | Low                        | No suitable foraging habitat found within the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                                                                                                  |
| <i>Onychomys torridus ramona</i><br>Southern grasshopper mouse         | None/SSC/Group 2,<br>MSCP                          | Alkali desert scrub and other desert scrub habitats, sparse coastal scrub, especially with friable soils for digging in Mojave Desert and southern Central Valley (2).                                                                                                                                                                                                            | No                                          | Low                        | No suitable grassland habitat found within the project area. Documented in the In-Ko-Pah Gorge, Jacumba, Live Oak Springs, Sombrero Peak, and Tierra Del Sol quadrangles (CDFW 2014a).                                                                                                                                                                                                            |
| <i>Ovis canadensis nelsoni</i> pop. 2<br>Peninsular bighorn sheep DPS  | FE/ST, FP/Group 1,<br>MSCP                         | Alpine dwarf-shrub, low sage, sagebrush, bitterbrush, pinyon-juniper, palm oasis, desert riparian, desert succulent shrub, desert scrub, subalpine conifer, perennial grassland, montane chaparral, and montane riparian from San Jacinto and Santa Rosa ranges south to Mexico (2).                                                                                              | No                                          | Not expected               | Outside of known range of the species. While suitable rocky, steep terrain present in the project area. They have only been documented in the In-Ko-Pah Gorge, Jacumba, Live Oak Springs, Sombrero Peak, and Sweeney Pass quadrangles (CNDDB 2014) east of the project area. Interveneing unsuitable dense vegetation is present between occupied areas and USFWS Critical Habitat, and this site |
| <i>Perognathus longimembris bangsi</i><br>Palm Springs pocket mouse    | None/ SSC/ MSCP                                    | Desert riparian, desert scrub, desert wash and sagebrush. Most common in creosote-dominated desert scrub; rarely on rocky sites.                                                                                                                                                                                                                                                  | No                                          | Not expected               | Outside of range. Limited suitable habitat on site. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                                                                                                          |
| <i>Perognathus longimembris brevinasus</i><br>Los Angeles pocket mouse | None/SSC/Group 2,<br>MSCP                          | Lower elevation grassland, alluvial sage scrub, and coastal sage scrub. Historically occurred in the coastal basins of southern California, from San Fernando and Burbank in the San Fernando Valley east to Cabazon, south through the San Jacinto and Temecula Valleys to Aguanga, Warner Pass, Vail, and Temecula. Current range does not include the San Fernando Valley (7). | No                                          | Not expected               | Outside of range. No suitable grassland habitat within the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                                                                                     |
| <i>Perognathus longimembris</i>                                        | FE/SSC/Group 1                                     | Coastal dunes, river alluvium, coastal sage scrub with firm sandy soils; along immediate                                                                                                                                                                                                                                                                                          | No                                          | Not expected               | Outside of range. No suitable grassland onsite and project area is not along coast.                                                                                                                                                                                                                                                                                                               |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                                      | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                       | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                   |
|---------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>pacificus</i><br>Pacific pocket mouse                                              |                                                          | coast in San Diego, Orange, and Los Angeles Cos. (4, 6).                                                                                                                                 |                                                   |                                  | Not recorded in the CNDDB 7-quadrant search <sup>2</sup>                                                                                                                                          |
| <i>Spermophilus tereticaudus chlorus</i><br>Palm Springs round-tailed ground squirrel | None/ SSC/ MSCP                                          | Desert succulent shrub, desert wash, desert scrub, alkali desert scrub, and levees in cropland habitat. Also found in urban habitat. Found from -60 to 900m (-180 to 2900 ft) elevation. | No                                                | Not expected                     | Suitable desert scrub habitat found within the project area. However, project area is higher than the species' recorded elevation range. Not recorded in the CNDDB 7-quadrant search <sup>2</sup> |
| <i>Taxidea taxus</i><br>American badger                                               | None/SSC/Group 2, MSCP                                   | Dry, open treeless areas, grasslands, coastal sage scrub, especially with friable soils throughout California (2).                                                                       | No                                                | Not expected                     | No burrows or digging sign was observed. Not recorded in the CNDDB 7-quadrant search <sup>2</sup>                                                                                                 |
| <i>Invertebrates</i>                                                                  |                                                          |                                                                                                                                                                                          |                                                   |                                  |                                                                                                                                                                                                   |
| <i>Ariolimax columbianus stramineus</i><br>Palomar banana slug                        | None/None/Group 2, MSCP                                  | Humid coastal forests; Santa Cruz Island (9).                                                                                                                                            | No                                                | Not expected                     | Project area not near coast. Outside of range. Not recorded in the CNDDB 7-quadrant search <sup>2</sup>                                                                                           |
| <i>Branchinecta sandiegonensis</i><br>San Diego fairy shrimp                          | FE/None/Group 1                                          | Small, shallow vernal pools, occasionally ditches and road ruts in coastal mesa system of southern California and Baja California (4).                                                   | No                                                | Not expected                     | No vernal pools within the project area. Not recorded in the CNDDB 7-quadrant search <sup>2</sup>                                                                                                 |
| <i>Brennania belkini</i><br>Belkin's dune tanabid fly                                 | None/None/Group 2                                        | Coastal sand dunes of southern California. Only CNDDB records are from USGS Quad: Venice, Los Angeles Co. (6).                                                                           | No                                                | Not expected                     | No sand dunes within the project area. Outside of range. Not recorded in the CNDDB 7-quadrant search <sup>2</sup>                                                                                 |
| <i>Callophrys thornei</i><br>Thorne's hairstreak butterfly                            | FC/None/Group 1                                          | Tecate cypress on chaparral-covered dry rocky slopes, Otay Mt. (4).                                                                                                                      | No                                                | Low                              | No Tecate cypress habitat on site. Not observed during butterfly surveys. Not recorded in the CNDDB 7-quadrant search <sup>2</sup>                                                                |
| <i>Cicindela gabbii</i><br>Western tidal flat tiger beetle                            | None/None/Group 2                                        | Estuaries and mudflats; generally on dark-colored mud; occasional on dry saline flats of estuaries or mouth of river, Orange and San Diego Cos. (6).                                     | No                                                | Not expected                     | No suitable estuaries within the project area. Not recorded in the CNDDB 7-quadrant search <sup>2</sup>                                                                                           |
| <i>Cicindela hirticollis grvida</i><br>Hairy-necked tiger beetle                      | None/None/Group 2                                        | Clean, dry, light-colored sand in upper zone of the beach dunes, close to non-brackish water along coastal California (6).                                                               | No                                                | Not expected                     | Project area not near coast. Not recorded in the CNDDB 7-quadrant search <sup>2</sup>                                                                                                             |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                            | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                      | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Cicindela latesignata<br/>obliviosa</i><br>Western beach tiger<br>beetle | None/None/Group 2                                        | Inhabited the Southern California coastline, from La Jolla north to the Orange Co. line. Occupied saline mudflats and moist sandy spots in estuaries of small streams in the lower zone. Has not been observed in 20 years (4).                                                                         | No                                                | Not<br>expected                  | Project area not near coast and no mudflats or beaches on site. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                                      |
| <i>Cicindela senilis frosti</i><br>Senile tiger beetle                      | None/None/Group 2                                        | Coastal salt marshes; fresh/brackish lagoons, open patches of Salicornia, dried salt pans, muddy alkali area. Records in Riverside, San Diego, Los Angeles, Ventura Cos. (4, 6).                                                                                                                        | No                                                | Not<br>expected                  | No salt marshes within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                             |
| <i>Cicindela trifasciata<br/>sigmoidea</i><br>S-banded tiger beetle         | None/None/Group 2                                        | Has been identified along the fringe of a mudflat and low marsh habitat in San Diego Co. (10).                                                                                                                                                                                                          | No                                                | Not<br>expected                  | No suitable mudflats or marshes within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                                             |
| <i>Coelus globosus</i><br>Globose dune beetle                               | None/None/Group 1                                        | Fore dunes, sand hummocks, back dunes along immediate coast. Larvae, adults spend time under vegetation or debris from Santa Cruz south to Ventura Cos. Possibly extirpated in San Diego and other coastal counties (4).                                                                                | No                                                | Not<br>expected                  | No coastal dunes on site. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                                                                                            |
| <i>Euphydryas editha<br/>quino</i><br>Quino checkerspot<br>butterfly        | FE/None/Group 1,<br>MSCP/XERCES:CI                       | Sparsely vegetated hilltops, ridgelines, occasionally rocky outcrops; host plant <i>Plantago erecta</i> and nectar plants must be present, San Diego and Riverside Cos. (4).                                                                                                                            | No                                                | Low<br>potential                 | Not observed during focused surveys. Host plants not found within the project area. However, documented in the Jacumba, Live Oak Springs, Sombrero Peak and Tierra Del Sol quadrangles (CDFW 2014a; USFWS 2014) and within ECO Substation approximately 3.5 miles W of the project site (RBC 2009b, 2010). |
| <i>Euphyes vestris<br/>harbisoni</i><br>Harbison's dun<br>skipper           | None/None/Group 1,<br>MSCP                               | Canyon bottoms, creeks, seeps beneath shade of oak trees in riparian habitats supporting host plant <i>Carex spissa</i> growing near <i>Toxicodendron diversilobum</i> . Found throughout western San Diego Co. to Santa Ana Mts. Of Orange Co., with largest population in Ramona-Escondido area (11). | No                                                | Not<br>expected                  | Not observed during butterfly surveys. No suitable wetlands found within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup>                                                                                                                                                           |
| <i>Helminthoglypta<br/>traskii coelata</i>                                  | None/ None/Group 2,<br>MSCP                              | Coastal San Diego County (6).                                                                                                                                                                                                                                                                           | No                                                | Not<br>expected                  | No suitable wetlands within the project area. Not recorded in the CNDDDB 7-quad                                                                                                                                                                                                                            |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                                                               | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                            | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>(Helminthoglypta<br/>coelata)</i><br>Peninsular Range<br>shoulderband snail<br>(Mesa shoulderband<br>snail) |                                                          |                                                                                                                                                                                                                                                                                                               |                                                   |                                  | search <sup>2</sup>                                                                                                                                             |
| <i>Linderiella<br/>occidentalis</i><br>California fairy shrimp                                                 | None/None/Group 1                                        | Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity and TDS. Central Valley, Santa Rosa Plateau (4).                                                                                     | No                                                | Not<br>expected                  | No suitable pools within the project site. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                            |
| <i>Lycaena hermes</i><br>Hermes copper                                                                         | FC/None/Group 1,<br>MSCP                                 | Coastal sage scrub, southern mixed chaparral supporting at least 5% cover of host plant <i>Rhamnus crocea</i> . Adults visit <i>Eriogonum fasciculatum</i> and <i>Helianthus gracilentus</i> . On well-drained hillsides and canyon bottoms, coastal San Diego Co. south to Santo Tomas, Baja California (4). | No                                                | Not<br>expected                  | Not observed during butterfly surveys. Larval host plant not present on site. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                         |
| <i>Megathymus yuccae<br/>(harbisoni)</i><br>Yucca giant skipper                                                | None/None/Group 2                                        | Coastal dunes, open yucca flats, desert canyons, open woodland, grassland, and old fields. Record from eastern San Diego Co. near Scissors Crossing (4, 8).                                                                                                                                                   | No                                                | Not<br>expected                  | Not observed during butterfly surveys. Outside of range. No suitable habitat within the project area. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup> |
| <i>Panoquina errans</i><br>Wandering skipper                                                                   | None/None/ Group 1                                       | Salt marsh from Los Angeles to Baja California, Mexico. Host plant <i>Distichlis spicata</i> in salt marshes or near beaches, mouths of rivers (4).                                                                                                                                                           | No                                                | Not<br>expected                  | Not observed during butterfly surveys. No suitable salt marsh habitat on site. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                        |
| <i>Papilio multicaudata</i><br>Two-tailed swallowtail                                                          | None/None/Group 1                                        | Semi-arid canyon land, mid-level mountains, canyon bottoms; groves, parks, roadsides (4).                                                                                                                                                                                                                     | No                                                | Not<br>expected                  | Not observed during butterfly surveys. No suitable habitat within the project area. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                   |
| <i>Plebejus saepiolus<br/>hilda</i><br>Hilda greenish blue                                                     | None/None/Group 1                                        | Grassy meadow, near small pond; oviposit on <i>Trifolium wormskioldii</i> . In San Bernardino Mts (8).                                                                                                                                                                                                        | No                                                | Not<br>expected                  | No suitable habitat found on site. Not recorded in the CNDDDB 7-quadrant search <sup>2</sup>                                                                    |
| <i>Pseudocypaodes</i>                                                                                          | None/None/Group 1,                                       | Desert seeps, alkali flats of Kern River, Kern Co. Host plant grass: <i>Distichlis spicata</i> var. <i>spicata</i>                                                                                                                                                                                            | No                                                | Not                              | Not observed during butterfly surveys. No suitable habitat found on site. Not                                                                                   |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                                         | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                                                               |
|------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>eunus eunus</i><br>Alkali skipper                                                     | MSCP                                                     | (4).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                   | expected                         | recorded in the CNDDB 7-quad search <sup>2</sup>                                                                                                              |
| <i>Pyrgus ruralis lagunae</i><br>Laguna Mountain skipper                                 | FE/None/Group 1,<br>MSCP/XERCES:CI                       | Only in a few open meadows in yellow pine forest between 1,524 and 1,829 m in the vicinity of Mt. Laguna and Palomar Mt. Eggs laid on leaves of <i>Horkelia clevelandi</i> . Larvae feed on leaves and overwinter on the host plant (4).                                                                                                                                                                                                                                            | No                                                | Not expected                     | Not observed during butterfly surveys. Project area is lower than the species' recorded elevation range. Not recorded in the CNDDB 7-quad search <sup>2</sup> |
| <i>Streptocephalus woottoni</i><br>Riverside fairy shrimp                                | FE/None/Group 1                                          | Deep, long-lived vernal pools, vernal pool-like seasonal ponds, stock ponds; warm water pools that have low to moderate dissolved solids; in patches of grassland or agriculture interspersed in coastal sage scrub vegetation in southern California (4).                                                                                                                                                                                                                          | No                                                | Not expected                     | No vernal pools within the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                 |
| <i>Trigonoscuta blaisdelli</i><br>Blaisdell trigonoscuta weevil                          | None/None/Group 2                                        | <i>Trigonoscuta</i> sp.: Coastal, desert, or inland sand dunes; wide variety of plant types used; the larvae feed on the roots and the adults on the leaves (12).                                                                                                                                                                                                                                                                                                                   | No                                                | Not expected                     | No dunes within the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                                        |
| <i>Tryonia imitator</i><br>Mimic tryonia,<br>California<br>brackishwater snail           | None/None/Group 2                                        | Coastal lagoons, herbaceous wetlands, brackish salt marshes; distributed among semi-continuous estuarine habitats along coast (4).                                                                                                                                                                                                                                                                                                                                                  | No                                                | Not expected                     | No lagoons or salt marshes within the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                      |
| <i>Fish</i>                                                                              |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                   |                                  |                                                                                                                                                               |
| <i>Oncorhynchus mykiss irideus</i><br>Southern steelhead -<br>southern California<br>DPS | FE/SSC/Group 1/<br>AFS:EN                                | <i>Oncorhynchus mykiss</i> ssp. <i>irideus</i> : Santa Maria River south to southern extent of range (San Mateo Creek in San Diego Co.); Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions. Ocean, rivers, creeks, large inland lakes, juveniles spend time in ocean before returning to natal stream to spawn; prefer summer temperatures 10-15C. Migration requires deep (3m) pools with cover along river course (4). | No                                                | Not expected                     | No suitable streams or wetlands within the project area. Not recorded in the CNDDB 7-quad search <sup>2</sup>                                                 |

## APPENDIX G (Continued)

| Scientific Name /<br>Common Name                                              | Status<br>(Federal/ State/<br>County/Other) <sup>1</sup> | Habitat Preferences / Requirements                                                                                                                                                                                                                                                                                                                                                       | Verified On Site<br>(Direct/Indirect<br>Evidence) | Potential<br>To Occur<br>On Site | Factual Basis For Determination                                                                                |
|-------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------|
| <i>Gila orcuttii</i><br>Arroyo chub                                           | None/SSC/Group 1/<br>AFS:VU                              | Permanent, small to moderate sized, moderate to high gradient streams with flow; headwaters, creeks, small to medium rivers, intermittent streams. Prefer slow moving sections with sand or mud substrate. Found in southern California watersheds (4).                                                                                                                                  | No                                                | Not expected                     | No suitable streams or wetlands within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Cyprinodon macularius</i><br>Desert pupfish                                | FE/SE/Group 2,<br>AFS:EN                                 | Desert springs, outflow marshes, river-edge marshes, backwaters, saline pools, streams, water less than 1m depth. Tolerates low oxygen levels, high temperatures, high salinity; can live in salinities from fresh water to 68 ppt., can withstand temperatures from 9-45 C and DO levels down to 0.1 ppm. Found from San Felipe Creek, San Sebastian Marsh, Salt Creek, Salton Sea (4). | No                                                | Not expected                     | No suitable streams or wetlands within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Gasterosteus aculeatus williamsoni</i><br>Unarmored threespine stickleback | FE/SE, FP/Group 2 /<br>AFS:EN                            | Clear, cool, slow-flowing streams with sand or mud substrate, weedy pools, backwaters, among emergent vegetation at stream edge, in abundant aquatic vegetation in Santa Clara River drainage (4).                                                                                                                                                                                       | No                                                | Not expected                     | No suitable streams or wetlands within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |
| <i>Eucyclogobius newberryi</i><br>Tidewater goby                              | FE/SSC/Group 1/<br>AFS:EN                                | Coastal lagoons, upper ends of lagoons created by small coastal streams, fresh to brackish water in lower sections of coastal streams; occurs in water 25-100cm deep and prefers mud substrates and areas of high dissolved oxygen. Found with sparse distribution along coast of California south of Del Norte Co. to San Diego Co. (4).                                                | No                                                | Not expected                     | No suitable streams or wetlands within the project area. Not recorded in the CNDDDB 7-quad search <sup>2</sup> |

<sup>1</sup> **Status Designations:**

Federal Designations:

|      |                                                           |
|------|-----------------------------------------------------------|
| BCC  | Fish and Wildlife Service: Birds of Conservation Concern  |
| FC   | Candidate for federal listing as threatened or endangered |
| (FD) | Federally-delisted; monitored for five years              |
| FE   | Federally-listed Endangered                               |
| FT   | Federally-listed as Threatened                            |

## APPENDIX G (Continued)

|                      |                                                                         |
|----------------------|-------------------------------------------------------------------------|
| MNBMC                | Fish and Wildlife Service Migratory Nongame Birds of Management Concern |
| USBC                 | United States Bird Conservation Watch List                              |
| FPT                  | Federally Proposed Threatened                                           |
| State Designations:  |                                                                         |
| SSC                  | California Special Concern Species                                      |
| FP                   | California Department of Fish and Game Fully Protected Species          |
| WL                   | California Department of Fish and Game Watch List Species               |
| SE                   | State-listed as Endangered                                              |
| ST                   | State-listed as Threatened                                              |
| SC                   | State Candidate for Endangered                                          |
| (SD)                 | State Delisted                                                          |
| County Designations: |                                                                         |
| Group 1              |                                                                         |
| Group 2              |                                                                         |
| Group 3              |                                                                         |
| MSCP                 | East County MSCP draft covered species                                  |
| Other Designations:  |                                                                         |
| WBWG:H               | Western Bat Working Group: High Priority                                |
| WBWG:LM              | Western Bat Working Group: Low-Medium Priority                          |
| WBWG:M               | Western Bat Working Group: Medium Priority                              |
| WBWG:MH              | Western Bat Working Group: Medium-High Priority                         |
| AFS:EN               | American Fisheries Society: Endangered                                  |
| AFS:TH               | American Fisheries Society: Threatened                                  |
| AFS:VU               | American Fisheries Society: Vulnerable                                  |
| XERCES:CI            | Xerces Society – Critically Endangered                                  |

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### Notes:

<sup>2</sup> The 7-quad search includes species recorded in CNDDb or USFWS databases for the Jacumba and 6 surrounding quadrangles (Carrizo Mtn, Sweeney Pass, Sombrero Peak, In-ko-pah Gorge, Live Oak Springs, and Tierra del Sol).

## APPENDIX G (Continued)

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# **APPENDIX H**

*Jacumba Solar*

*Quino Checkerspot Butterfly Report*



June 6, 2013

7524

U.S. Fish and Wildlife Service  
Attention: Recovery Permit Coordinator  
6010 Hidden Valley Road  
Carlsbad, California 92011

**Subject: 2013 Focused Quino Checkerspot Butterfly Survey Report for the Proposed Jacumba Solar Energy Project, San Diego County, California**

Dear Recovery Permit Coordinator:

This letter report documents the spring 2013 results of a focused survey conducted by Dudek for the federally listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*; QCB). This survey was conducted in support of the Jacumba Solar Energy project, a proposed solar energy development project east of the community of Jacumba in the southeastern portion of the County of San Diego, California. This report is intended to satisfy reporting requirements for the following QCB-permitted biologists: Anita M. Hayworth, PhD, (TE781084-6); Brock A. Ortega (TE813545-6); Jeff D. Priest (TE840619-2); Kamarul J. Muri (TE051250-0); Paul M. Lemons (TE051248-4); and Vipul R. Joshi (TE019949-0).

## **PROJECT LOCATION AND EXISTING CONDITIONS**

The proposed Jacumba Solar Energy project is comprised of two major components: 1) the approximate 300-acre Jacumba Solar Energy site and 2) construction of a new 1,000-foot-long 138-kilovolt (kV) generation-tie transmission line (gen-tie alignment site) required to connect the energy system to the existing Eco Substation. The 2013 QCB survey efforts were conducted within the proposed Jacumba Solar Energy Project site in an area totaling approximately 330 acres.

The proposed 330-acre study area is situated within the following 11 Assessor's Parcel Numbers (APNs): 661-041-02-00; 661-041-03-00; 661-041-04-00; 661-041-05-00; 661-080-01-00; 661-080-04-00; 661-080-05-01; 661-080-05-02; 661-080-06-00; 661-080-08-00; and 661-080-10-00. The project is located on private land approximately 3.5 miles east of the community of Jacumba, 0.5 mile south of Interstate 8 (I-8), and approximately 1.15 miles west of Imperial County in Southeastern San Diego County, California, (see Figure 1, Regional Map). More specifically, the study area is situated south of Old Highway 80 and immediately north of the U.S.–Mexico Border, within the Jacumba U.S. Geological Survey 7.5-minute quadrangle, Township 18 South, Ranges 8 East, Sections 2 and 11 (see Figure 2, Vicinity Map).

The study area is undeveloped with on-site elevation ranging between 3,010–3,160 feet above mean sea level (amsl). The site is relatively flat, except for a low hill near the southwest corner and several unvegetated channels that generally flow to the northwest across the site.

According to the U.S. Department of Agriculture (USDA) (2013), there are five soil types found in the project area; descriptions of these soil types, based on Bowman (1973) and the Web Soil Survey (USDA) (2013), appear below.

Acid igneous rock land soil is found in rough broken terrain. The topography ranges from low hills to very steep mountains. Large boulders and rock outcrops of granite, quartz diorite, gabbro, basalt, and other rock types cover greater than 50–90% of the total area of this soil type. The soil material is very shallow, consisting of loam to loamy coarse sand textures over decomposed granite or basic igneous rock. Pockets of deep soils are present between the rocks in some locales. Many areas are practically barren and have very rapid runoff. The vegetation for this soil type varies by elevation and climate. In the foothills and mountains, acid igneous rock land supports various chaparral vegetation communities.

The Mecca series consists of well-drained, very deep coarse sandy loams derived from granitic alluvium. The A horizon is composed of brown to dark brown, moderately alkaline coarse sandy loam and is 8–12 inches thick. The C horizon ranges from yellowish-brown or dark yellowish-brown to light brown or reddish brown in color and a moderately alkaline calcareous coarse sandy loam to loam texture. This horizon extends to a depth of more than 60 inches. These soils are found on alluvial fans and alluvial plains with slopes of 0–5% and contain moderate permeability. Mecca soils occur at elevations ranging from 200–2,000 feet. The Mecca soil inclusion within the project area is the Mecca coarse sandy loam with 2–5% slopes. This soil is gently sloping with slow runoff. Native vegetation expected on this soil type include cactus, creosote bush (*Larrea tridentata*), ocotillo (*Fouquieria splendens*), and annual grasses. Mecca soils are also used for range, irrigated alfalfa, small grain, and truck crops.

The Rositas series consists of excessively drained, very deep loamy coarse sands derived from granitic alluvium. The A horizon is approximately 3–8 inches thick, ranging from light brownish gray to pale brown or very pale brown in color and from loamy coarse sand or fine sand to sandy in texture. The C horizon extends to a depth of more than 60 inches. It ranges from pale brown to very pale brown or light yellowish brown in color and from gravelly coarse sand to loamy fine sand in texture. The Rositas soil inclusion within the project area is the Rositas loamy coarse sand, 2–9% slopes (RsC). This soil is gently to moderately sloping and found on alluvial fans and alluvial plains with slopes averaging 5%. Rositas soils occur at elevations ranging from 100–2,000 feet. This soil series has a water holding capacity of 3–4 inches, with rapid permeability and slow to medium runoff. Native vegetation expected on this soil type is mainly ocotillo, cholla (*Cylindropuntia* sp.), creosote bush, saltbush (*Atriplex* sp.), and annual grasses.

The Rough Broken Land (RuG) series is made up of well drained to excessively drained soils associated with steep and very steep land. Areas of exposed raw sediments are commonly found within this soil series, including areas of very shallow soils. Runoff is rapid to very rapid and vegetation consists of sparse cover of low woody shrubs.

The Sloping Gullied Land (SrD) series occurs on alluvial fans in the desert adjacent to mountains. This soil series is found within steep talus slopes and fans below basalt ledges in the vicinity of Jacumba. The texture ranges from clay loam to gravelly, cobbly sand derived from igneous, sedimentary, and metamorphic rocks. Limy material has been exposed where gullies have dissected areas of old alluvium. The soils are shallow to moderately deep underlain by basalt, volcanic tuff, and gravel with medium to very rapid runoff. Native vegetation expected on this soil type is primarily desert shrubs, cactus, and annual forbs and grasses with sparse cover.

## VEGETATION COMMUNITIES

Six plant communities and land cover types were mapped within the focused QCB survey area, including disturbed land, Peninsular juniper woodland and scrub, semi-desert chaparral, Sonoran mixed woody scrub, upper Sonoran subshrub scrub, and urban/developed. The acreages of each community type within the project site are shown in Table 1, Vegetation Communities within the Focused Quino Checkerspot Butterfly Survey Area for the Jacumba Solar Energy Project. Descriptions of each vegetation community (with Holland numeric codes) are provided following Table 1. Holland (1986) and Oberbauer et al. (2008) were used to describe vegetation communities on site. The *Manual of California Vegetation* (2nd edition) (Sawyer et al. 2009) was utilized as an additional reference to help determine characteristics (such as percentage of species cover) of various classifications.

**Table 1**  
**Vegetation Communities within the Focused Quino Checkerspot Butterfly Survey Area for the Jacumba Solar Energy Project**

| Vegetation Community or Land Cover    | Holland Code | Acres  |
|---------------------------------------|--------------|--------|
| Disturbed Land                        | 11300        | 13.1   |
| Peninsular Juniper Woodland and Scrub | 72320        | 127.06 |
| Semi-Desert Chaparral                 | 37400        | 179.86 |
| Sonoran Mixed Woody Scrub             | 33210        | 3.23   |
| Upper Sonoran Subshrub Scrub          | 39000        | 3.58   |
| Urban/Developed                       | 12000        | 3.12   |
| Total                                 |              | 329.95 |

## **Disturbed Land (11300)**

Disturbed land refers to areas that have been permanently altered by previous human activity that has eliminated all future biological value of the land for most species. The native or naturalized vegetation is no longer present, and the land lacks habitat value for sensitive wildlife, including potential raptor foraging.

Disturbed land found throughout the study area consists primarily of unpaved roads (Figure 3). These roads have been graded and contain little native vegetation. Disturbed land makes up 13.1 acres and is scattered in various locations throughout the study area.

## **Peninsular Juniper Woodland and Scrub (72320)**

Peninsular juniper woodland and scrub consists of relatively dense pinon woodland dominated by Parry pinyon (*Pinus quadrifolia*), with California juniper (*Juniperus californica*) occurring within xeric sites below the trees' dripline. This community occurs in alluvial fans and desert slopes that are slightly lower and more xeric than the peninsular pinon woodland community (72310) with which it intergrades (Holland 1986). Other dominant species include Parry's beargrass (*Nolina parryi*), Sonoran scrub oak (*Quercus turbinella*), Mojave yucca (*Yucca schidigera*), and sagebrush (*Artemisia tridentata*).

Peninsular juniper woodland and scrub observed on site contains California juniper at greater than 4% absolute cover and lacks pines (*Pinus* sp.). Other commonly occurring species include creosote bush, jointfir (*Ephedra* sp.), goldenbush (*Ericameria* spp.), and snakeweed (*Gutierrezia* sp.). Peninsular juniper woodland and scrub occurs in large patches throughout the study area (predominately found within Survey Areas 2 and 3), totaling 127.06 acres (Figure 3).

## **Semi-Desert Chaparral (37400)**

According to Holland (1986), semi-desert chaparral is similar to northern mixed chaparral (37710), but it is typically not quite as tall (1.5–3 meters, or 4.9–10 feet) and more open. Dominant taxa within this community include *Juniperus* sp., *Eriogonum* sp., and *Opuntia* sp. Characteristic species include chamise, *Arctostaphylos* sp., *Ceanothus* sp., *Quercus* sp., and a variety of other shrubs and subshrubs. This community is found on the high desert plateaus and escarpment of the Peninsular Range in San Diego County associated with drier, cooler winters (Holland 1986).

On site, semi-desert chaparral is found within areas where California juniper is less prominent (less than 4% absolute cover), including areas where California junipers have burned in the past and have not yet recovered. The semi-desert chaparral on site includes creosote bush, jointfir,

goldenbush, cholla, Eastern Mojave buckwheat, and deerweed (*Acmispon glaber*). Semi-desert chaparral is the dominant vegetation community on site, totaling 179.86 acres within the study area (Figure 3).

### **Sonoran Mixed Woody Scrub (33210)**

According to Holland (1986), Sonoran mixed woody scrub is similar to Sonoran mixed woody and succulent scrub (33220) but with additional woody species. Characteristic species include creosote bush, burrobush (*Ambrosia dumosa*), ocotillo, *Opuntia* sp., brittlebush (*Encelia farinosa*), and *Krameria* sp. In San Diego County, this community is associated with lower alluvial fans above the desert floor and below the coarse mountain substrates (Holland 1986).

Sonoran mixed woody scrub on site lack California juniper and are dominated by creosote bush, in addition to other shrub and succulent cover. Other commonly occurring species include jointfir, cholla, goldenbush, snakeweed, and strawberry cactus (*Mammillaria dioica*). Sonoran mixed woody scrub occurs in one small patch comprised of 3.23 acres toward the central portion of the study area (Figure 3).

### **Upper Sonoran Subshrub Scrub (39000)**

Upper Sonoran subshrub scrub is comprised of low, fairly penetrable scrub of soft-wooded, summer-dormant, drought-tolerant shrubs (Holland 1986). It is usually associated with well-drained soils derived from sandstone, shale, or sterile white diatomaceous deposits. In San Diego County, it intergrades with some chaparrals at higher elevations. Dominant vegetation found on site varies but usually includes narrowleaf goldenbush (*Ericameria linearifolia*), Eastern Mojave buckwheat (*Eriogonum fasciculatum* var. *polifolium*), bladderpod spiderflower (*Isomeris arborea arborea*), or California jointfur (*Ephedra californica*) (Holland 1986).

Areas mapped as upper Sonoran subshrub scrub are dominated by Eastern Mojave buckwheat, goldenbush, jointfir, cholla, and deerweed. This area contains native shrub cover but lacks California juniper and creosote bush. Sonoran subshrub scrub occurs in one patch (approximately 3.58 acres) located along the southern portion of the study area (Figure 3).

### **Urban/Developed (12000)**

Urban/developed land refers to areas that have been constructed upon or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large

amount of debris or other materials (Oberbauer et al. 2008). Approximately 3.12 acres of urban/developed areas associated with Old Highway 80 occur within the study area (Figure 3).

## QUINO CHECKERSPOT BUTTERFLY SURVEY

### Methods

Focused QCB surveys for the entire site were conducted over five visits within a 6-week period between March 14 and April 24, 2013. In order to accommodate for adverse weather conditions (e.g., temperature less than 60°F at ground level on a clear day; temperatures less than 70°F on an overcast or cloudy day; and/or sustained winds greater than 15 miles per hour) experienced during the scheduled survey dates, additional surveys were conducted at the end of the survey period (week 6) for Survey Area 4/week 4, Survey Area 1/week 5, and Survey Area 2/week 5. Surveys were conducted by QCB-permitted biologists Anita M. Hayworth, PhD, (TE781084-6); Brock A. Ortega (TE813545-5); Jeff D. Priest (TE840619-2); Kamarul J. Muri (TE051250-0); Paul M. Lemons (TE051248-4); Vipul R. Joshi (TE019949-0); Callie J. Ford (independent investigator); Patricia C. Schuyler (independent investigator); and Tricia L. Wotipka (independent investigator) in accordance with current U.S. Fish and Wildlife Service (USFWS) protocol (USFWS 2002; 67 FR 18355–18395).

The site was divided into four survey polygons, each representing a single-day survey effort (i.e., in accordance with USFWS protocol) (see Table 2, 2013 Quino Checkerspot Butterfly Survey Polygons). These survey areas were numbered and assigned to Dudek's permitted biologists and independent investigators. The biologists were provided with 200-scale (1 inch = 200 feet) aerial photographs of each survey polygon. These photographs were used for mapping host plant populations and QCB, if observed. Binoculars were used to aid in detecting and identifying butterfly and other wildlife species. GPS units also were available for recording locations of host plant populations.

**Table 2**  
**2013 Quino Checkerspot Butterfly Survey Polygons**

| Survey Area | Acreage of Survey Area |
|-------------|------------------------|
| 1           | 80                     |
| 2           | 85                     |
| 3           | 81                     |
| 4           | 85                     |

The survey methods consisted of slowly walking roughly parallel transects throughout all potential habitats within the survey area (i.e., all areas that were not excluded per the survey protocol, generally including sage scrub, open chaparral, grasslands, open or sparsely vegetated areas, rocky outcrops, trails, and dirt roads). Survey routes were arranged to thoroughly cover the survey area at a rate of no more than 10–15 acres per hour. After the first week of surveys, areas of thick chaparral were excluded from the survey areas, the polygons were further refined, and survey hours were adjusted accordingly. All wildlife species were recorded and are included in Appendix A.

Surveys were conducted only during acceptable weather conditions (i.e., surveys were not conducted during fog, drizzle, or rain; sustained winds greater than 15 miles per hour measured 4–6 feet above ground level; temperature in the shade at ground level less than 60°F on a clear, sunny day; or temperature in the shade at ground level less than 70°F on an overcast or cloudy day). Survey times, personnel, and conditions during the QCB survey are shown in Table 3, Schedule of Focused Quino Checkerspot Butterfly Surveys and Environmental Conditions. Photocopies of the surveyor's field notes are included as Appendix B.

**Table 3**  
**Schedule of Focused Quino Checkerspot Butterfly Surveys and Environmental Conditions**

| Week          | Date    | Time        | Range of Conditions    |                            |                             | Personnel     |
|---------------|---------|-------------|------------------------|----------------------------|-----------------------------|---------------|
|               |         |             | Temperature Range (°F) | Percent Cloud Cover (% cc) | Wind (miles per hour (mph)) |               |
| Survey Area 1 |         |             |                        |                            |                             |               |
| 1             | 3/14/13 | 09:45–15:05 | 69–78                  | 0–0                        | 6–8 to 4–6                  | KJM           |
| 2             | 3/25/13 | 09:30–15:00 | 68–72                  | 0–10                       | 2–6 to 6–8                  | KJM           |
| 3             | 3/29/13 | 09:30–14:50 | 66–80                  | 10–80                      | 0–2 to 4–6                  | TLW           |
| 4             | 4/5/13  | 09:00–16:00 | 60–78                  | 10–0                       | 3–5 to 5–10; gusts to 10    | BAO           |
| 5             | *       | N/A         | N/A                    | N/A                        | N/A                         | N/A           |
| 6             | 4/19/13 | 12:00–16:00 | 72–75                  | 0–0                        | 4–8 to 4–8                  | AMH, CJF, PCS |
| Survey Area 2 |         |             |                        |                            |                             |               |
| 1             | 3/14/13 | 11:00–17:00 | 79–80                  | 0–0                        | 5–8 to 0–2                  | TLW           |
| 2             | 3/21/13 | 09:30–15:30 | 60–70                  | 30–0                       | 3–6 to 3–6                  | TLW           |
| 3             | 3/29/13 | 10:30–16:20 | 70–73                  | 100–80                     | 3–5; gusts to 10            | BAO           |
| 4             | 4/4/13  | 08:30–14:30 | 70–80                  | 80–90                      | 0–1 to 3–8; gusts to 10     | JDP           |
| 5             | *       | N/A         | N/A                    | N/A                        | N/A                         | N/A           |
| 6             | 4/19/13 | 08:10–12:00 | 63–72                  | 0–0                        | 4–8 to 4–8, gusts to 11     | AMH, CJF, PCS |

**Table 3**  
**Schedule of Focused Quino Checkerspot Butterfly Surveys and Environmental Conditions**

| Week          | Date    | Time        | Range of Conditions    |                            |                             | Personnel     |
|---------------|---------|-------------|------------------------|----------------------------|-----------------------------|---------------|
|               |         |             | Temperature Range (°F) | Percent Cloud Cover (% cc) | Wind (miles per hour (mph)) |               |
| Survey Area 3 |         |             |                        |                            |                             |               |
| 1             | 3/18/13 | 09:05–13:00 | 70–86                  | 30–30                      | 0–1                         | AMH, CJF, PCS |
| 2             | 3/25/13 | 09:20–14:30 | 66–78                  | 0–0                        | 0–2 to 6–8                  | TLW           |
| 3             | 4/3/13  | 08:30–14:15 | 70–81                  | 0–0                        | 0–2 to 3–4                  | TLW           |
| 4             | *       | N/A         | N/A                    | N/A                        | N/A                         | N/A           |
| 5             | 4/11/13 | 08:30–16:30 | 60–74                  | 0–0                        | 1–5; gusts to 10            | BAO           |
| 6             | 4/17/13 | 08:30–14:15 | 64–73                  | 0–0                        | 0–3 to 1–4; gusts to 7–12   | PML           |
| Survey Area 4 |         |             |                        |                            |                             |               |
| 1             | 3/18/13 | 13:00–17:00 | 86–84                  | 5–50                       | 0–5 to 2–6; gusts to 8      | AMH, CJF, PCS |
| 2             | 3/21/13 | 10:45–16:10 | 61–71                  | 70–70                      | 4–5 to 3–5                  | BAO           |
| 3             | 4/2/13  | 10:00–16:00 | 64–82                  | 0–0                        | 2–4 to 3–5                  | VRJ, SKV      |
| 4             | 4/4/13  | 10:00–15:00 | 76–76                  | 80–50                      | 5–3 to 3–9, gusts to 10     | KJM, SKV, JMW |
| 5             | 4/11/13 | 08:45–14:45 | 75–82                  | 5–0                        | 2–6 to 8–12, gusts to 12–20 | JDP           |

\* Survey not conducted due to adverse weather conditions.

AMH = Anita M. Hayworth, PhD (TE-781084-6)

BAO = Brock A. Ortega (TE-813545-5)

JDP = Jeffrey D. Priest (TE-840619-2)

KJM = Kamarul J. Muri (TE-051250-0)

PML = Paul M. Lemons (TE-051248-4)

VRJ = Vipul R. Joshi (TE-019949-0)

PCS = Patricia C. Schuyler

CJF = Callie J. Ford

SKV = Shane Valiere

TLW = Tricia L. Wotipka

JMW = Jonathan M. Walker

## RESULTS

No QCB were observed during the 2012 focused survey. Twenty-six butterfly species were observed during the surveys. The weeks in which these butterflies were observed are shown in Table 4, Butterflies Observed on Site. It was not always feasible to distinguish the species of two genera, *Vanessa* and *Anthocharis*; therefore, although these genera are represented in Table 4 below, they are not included in the total butterfly species observed during surveys.

**Table 4**  
**Butterflies Observed on Site**

| Scientific Name                        | Common Name                   | Week           |                |               |               |                |                |
|----------------------------------------|-------------------------------|----------------|----------------|---------------|---------------|----------------|----------------|
|                                        |                               | 1<br>3/14–3/20 | 2<br>3/21–3/27 | 3<br>3/28–4/3 | 4<br>4/4–4/10 | 5<br>4/11–4/17 | 6<br>4/18–4/24 |
| Hesperiidae – Skippers                 |                               |                |                |               |               |                |                |
| <i>Erynnis funeralis</i>               | Funeral duskywing             | X              | X              | —             | X             | —              | —              |
| Nymphalidae – Brush-Footed Butterflies |                               |                |                |               |               |                |                |
| <i>Danaus plexippus</i>                | Monarch                       | —              | —              | X             | —             | —              | —              |
| <i>Euphydryas chalcedona</i>           | Chalcedon checkerspot         | X              | X              | X             | X             | X              | X              |
| <i>Junonia coenia</i>                  | Common buckeye                | X              | X              | X             | X             | X              | —              |
| <i>Vanessa</i> sp.                     | Lady sp.                      | X              | X              | X             | —             | —              | X              |
| <i>Vanessa annabella</i>               | West coast lady               | X              | —              | X             | —             | —              | —              |
| <i>Vanessa cardui</i>                  | Painted lady                  | X              | —              | —             | —             | —              | —              |
| Lycaenidae – Blues and Hairstreaks     |                               |                |                |               |               |                |                |
| <i>Callophrys dumetorum</i>            | Bramble hairstreak            | —              | —              | X             | —             | —              | —              |
| <i>Callophrys gryneus</i>              | Juniper hairstreak            | —              | X              | X             | X             | X              | X              |
| <i>Callophrys gryneus loki</i>         | ‘Loki’ juniper hairstreak     | X              | X              | X             | —             | —              | —              |
| <i>Callophrys gryneus thornei</i>      | ‘Thorne’s’ juniper hairstreak | X              | —              | —             | —             | —              | —              |
| <i>Callophrys perplexa</i>             | Perplexing (green) hairstreak | X              | X              | X             | —             | —              | —              |
| <i>Glaucopsyche lygdamus</i>           | Silvery blue                  | X              | —              | X             | —             | —              | —              |
| <i>Glaucopsyche lygdamus australis</i> | Southern blue                 | X              | —              | —             | —             | —              | —              |
| <i>Plebejus acmon</i>                  | Acmon blue                    | —              | X              | X             | —             | —              | —              |
| Papilionidae – Swallowtails            |                               |                |                |               |               |                |                |
| <i>Papilio polyxenes coloro</i>        | Desert black swallowtail      | X              | —              | —             | —             | —              | —              |
| <i>Papilio rutulus</i>                 | Western swallowtail           | X              | —              | —             | —             | —              | —              |
| <i>Papilio zelicaon</i>                | Anise swallowtail             | X              | X              | X             | X             | X              | —              |
| Peiridae – Whites and Sulfurs          |                               |                |                |               |               |                |                |
| <i>Anthocharis</i> sp.                 | Orangetip sp.                 | X              | X              | —             | X             | —              | —              |
| <i>Anthocharis sara</i>                | Sara orangetip                | X              | X              | X             | X             | X              | —              |
| <i>Anthocharis cethura</i>             | Desert orangetip              | X              | —              | —             | —             | —              | —              |

**Table 4**  
**Butterflies Observed on Site**

| Scientific Name                | Common Name        | Week           |                |               |               |                |                |
|--------------------------------|--------------------|----------------|----------------|---------------|---------------|----------------|----------------|
|                                |                    | 1<br>3/14–3/20 | 2<br>3/21–3/27 | 3<br>3/28–4/3 | 4<br>4/4–4/10 | 5<br>4/11–4/17 | 6<br>4/18–4/24 |
| <i>Colias eurydice</i>         | California dogface | —              | —              | X             | X             | X              | —              |
| <i>Colias eurytheme</i>        | Orange sulphur     | —              | —              | —             | X             | X              | —              |
| <i>Colias harfordi</i>         | Harford's Sulfur   | —              | —              | X             | —             | —              | —              |
| <i>Euchloe hyantis</i>         | Pearly marble      | —              | X              | X             | X             | —              | —              |
| <i>Euchloe lotta</i>           | Desert marble      | —              | —              | —             | —             | —              | X              |
| <i>Pontia protodice</i>        | Common white       | —              | X              | X             | X             | X              | —              |
| <i>Riodinidae</i> – Metalmarks |                    |                |                |               |               |                |                |
| <i>Apodemia virgulti</i>       | Behr's metalmark   | X              | X              | —             | X             | —              | —              |

No QCB larval host plants were observed within the study area during focused surveys. Table 5, QCB Larval Food and Adult Nectar Plants, includes the known and observed adult QCB nectar plants (according to Mattoni et al. 1997; USFWS 2002, 2003; 67 FR 18355–18395). Larval host plants are also included in Table 5 and are in bold print.

**Table 5**  
**QCB Larval Food and Adult Nectar Plants<sup>1</sup>**

| Scientific Name                                     | Common Name                    | Observed During Focused Survey |
|-----------------------------------------------------|--------------------------------|--------------------------------|
| <i>Apiaceae</i> – Carrot Family                     |                                |                                |
| <i>Lomatium dasycarpum</i> ssp. <i>dasycarpum</i>   | woolly-fruit lomatium          | —                              |
| <i>Lomatium utriculatum</i>                         | common lomatium                | —                              |
| <i>Asteraceae</i> – Sunflower Family                |                                |                                |
| <i>Achillea millefolium</i>                         | yarrow, milfoil                | —                              |
| <i>Lasthenia californica</i>                        | common goldfields              | X                              |
| <i>Lasthenia coronaria</i>                          | southern goldfields            | —                              |
| <i>Layia platyglossa</i>                            | common tidy tips               | —                              |
| <i>Boraginaceae</i> – Borage Family                 |                                |                                |
| <i>Amsinckia menziesii</i>                          | rancher's fireweed             | X                              |
| <i>Amsinckia menziesii</i> var. <i>intermedia</i>   | rancher's fiddleneck           | —                              |
| <i>Amsinckia menziesii</i> var. <i>menziesii</i>    | rigid fiddleneck               | —                              |
| <i>Cryptantha</i> spp. or <i>Plagiobothrys</i> spp. | popcorn flower                 | X                              |
| <i>Fabaceae</i> – Pea Family                        |                                |                                |
| <i>Lotus</i> spp.                                   | deerweed, spanishclover, lotus | X                              |

**Table 5**  
**QCB Larval Food and Adult Nectar Plants<sup>1</sup>**

| Scientific Name                                            | Common Name             | Observed During Focused Survey |
|------------------------------------------------------------|-------------------------|--------------------------------|
| <i>Hydrophyllaceae</i> – Waterleaf Family                  |                         |                                |
| <i>Eriodictyon crassifolium</i> var. <i>crassifolium</i>   | thickleaf yerba santa   | —                              |
| <i>Eriodictyon trichocalyx</i> var. <i>trichocalyx</i>     | hairy yerba santa       | —                              |
| <i>Phacelia distans</i>                                    | wild-heliotrope         | X                              |
| <i>Lamiaceae</i> – Mint Family                             |                         |                                |
| <i>Salvia columbariae</i>                                  | chia                    | —                              |
| <i>Plantaginaceae</i> – Plantain Family                    |                         |                                |
| <i>Plantago erecta</i> <sup>2</sup>                        | dot-seed plantain       | —                              |
| <i>Plantago patagonica</i>                                 | woolly plantain         | —                              |
| <i>Polemoniaceae</i> – Phlox Family                        |                         |                                |
| <i>Gilia angelensis</i>                                    | grassland gilia         | —                              |
| <i>Gilia capitata</i> ssp. <i>abrotanifolia</i>            | ball gilia              | —                              |
| <i>Linanthus</i> spp.                                      | ground pink             | X                              |
| <i>Polygonaceae</i> – Buckwheat Family                     |                         |                                |
| <i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>       | California buckwheat    | X                              |
| <i>Scrophulariaceae</i> – Figwort Family                   |                         |                                |
| <i>Antirrhinum coulterianum</i>                            | Coulter's snapdragon    | —                              |
| <i>Castilleja exserta</i>                                  | common owl's-clover     | —                              |
| <i>Collinsia</i> sp.                                       | Chinese houses          | —                              |
| <i>Cordylanthus rigidus</i> ssp. <i>setiger</i>            | dark-tipped bird's-beak | —                              |
| <i>Keckiella antirrhinoides</i> var. <i>antirrhinoides</i> | yellow bush-penstemon   | —                              |
| <i>Keckiella cordifolia</i>                                | climbing bush penstemon | —                              |
| <i>Liliaceae</i> – Lily Family                             |                         |                                |
| <i>Allium haematochiton</i>                                | red-skin onion          | —                              |
| <i>Allium peninsulare</i>                                  | red-flower onion        | —                              |
| <i>Allium praecox</i>                                      | early onion             | —                              |
| <i>Dichelostemma capitatum</i>                             | blue dicks              | —                              |
| <i>Muilla clevelandii</i>                                  | San Diego goldenstar    | —                              |
| <i>Muilla maritima</i>                                     | common muilla           | —                              |

<sup>1</sup> List derived from Mattoni et al. 1997; USFWS 2002, 2003; 67 FR 18355–18395 (for *Euphydryas editha*).

<sup>2</sup> Plants listed in **bold** print are known QCB larval host plant species.

Recovery Permit Coordinator

Subject: 2013 Focused Quino Checkerspot Butterfly Survey Report for the Proposed Jacumba Solar Energy Project, San Diego County, California

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Dudek certifies that the information in this survey report and attached exhibits fully and accurately represents the work conducted by the QCB-permitted biologists who conducted this focused survey.

Please feel free to contact me at 760.479.4254 or [bortega@dudek.com](mailto:bortega@dudek.com) if you have any questions regarding the contents of this report.

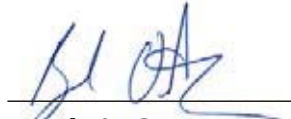
Sincerely,



Paul M. Lemons  
Permit #TE051248-4



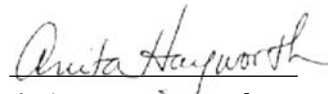
Kamarul J. Muri  
Permit # TE051250-0



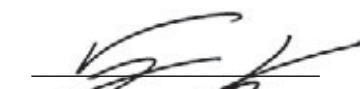
Brock A. Ortega  
Permit #TE813545-5



Jeffrey D. Priest  
Permit #TE840619-2



Anita M. Hayworth  
Permit #TE781084



Vipul R. Joshi  
Permit # TE019949-0

Att: Figure 1, Regional Map  
Figure 2, Vicinity Map  
Figure 3, Biological Resources  
Appendix A – List of Wildlife Species Observed during the 2013 Jacumba Solar Energy Project QCB Survey  
Appendix B – 2013 Jacumba Solar Energy Project QCB Survey Field Notes

cc: Andy Flajole, NextEra Energy  
David Hochart, Dudek

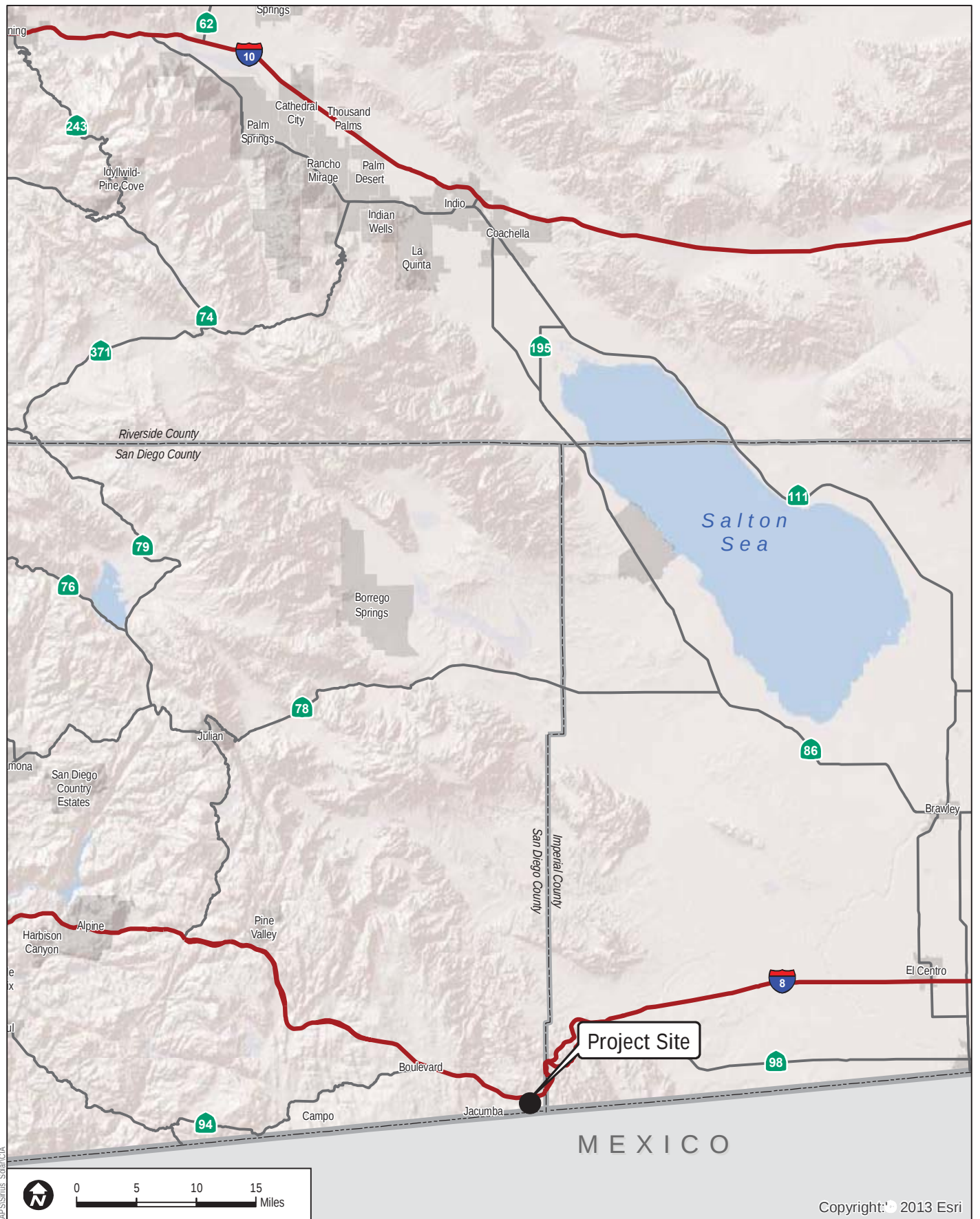
## REFERENCES CITED

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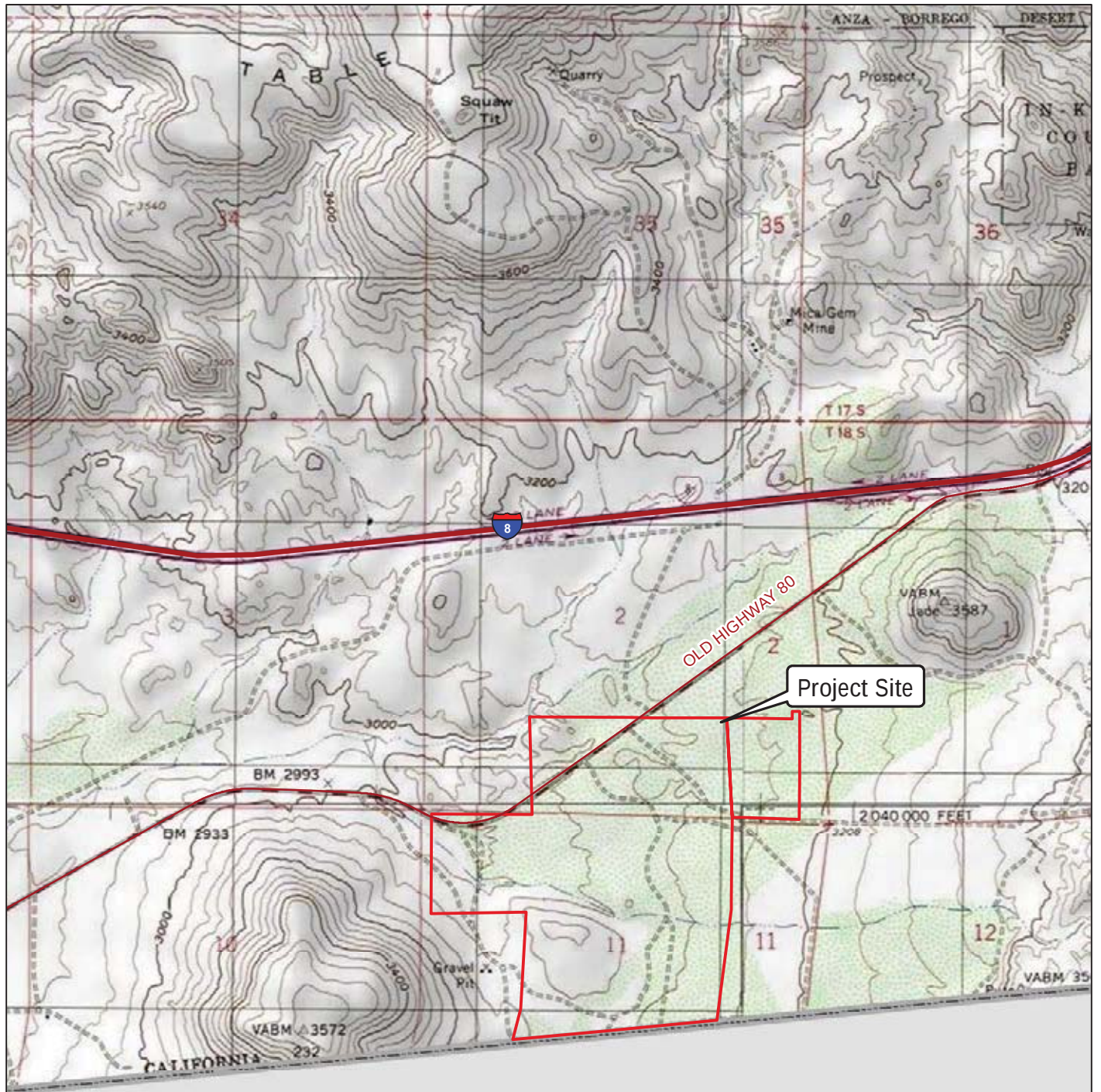
**FIGURE 1**  
**Regional Map**

**DUDEK**

7524

Jacumba Solar Energy Project

Z:\Projects\75501\MAPDOC\MAPS\Situs\_SaltonCIA



0 1,000 2,000 Feet

**DUDEK**

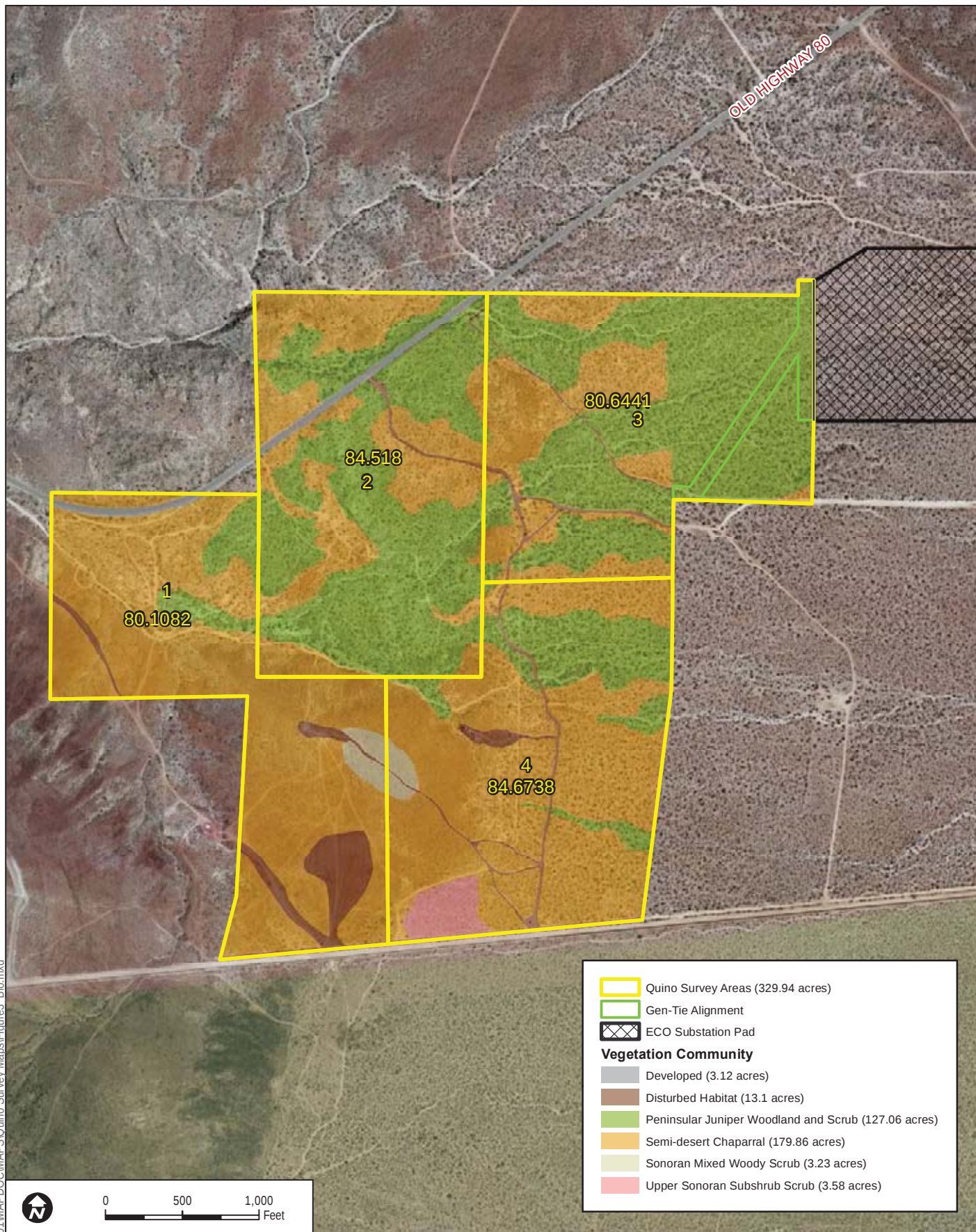
7524

SOURCE: Bing 2012

Jacumba Solar Energy Project

Copyright: 2013 National Geographic Society, i-cubed

**FIGURE 2**  
**Vicinity Map - Project Site**



**DUDEK**

7525

AERIAL SOURCE: ESRI 2013

Jacumba Solar Energy Project

**FIGURE 3**  
**Total Project Area - Quino Survey Index Map**

# **APPENDIX A**

*List of Wildlife Species Observed during the  
2013 Jacumba Solar QCB Survey*

**APPENDIX A**  
**List of Wildlife Species Observed during the**  
**2013 Jacumba Solar QCB Survey**

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**WILDLIFE SPECIES – VERTEBRATES**

**REPTILES**

***VIPERIDAE – VIPERS***

*Crotalus oreganus helleri* – southern pacific rattlesnake

***IGUANIDAE – IGUANID LIZARDS***

*Aspidoscelis tigris* – western whiptail

*Petrosaurus mearnsi* – banded rock lizard

*Sceloporus occidentalis* – western fence lizard

*Sceloporus orcutti* – granite spiny lizard

*Uta stansburiana* – side-blotched lizard

**BIRDS**

***ACCIPITRIDAE – HAWKS***

*Buteo jamaicensis* – red-tailed hawk

***AEGITHALIDAE – BUSHTITS***

*Psaltiriparus minimus* – bushtit

***ALAUDIDAE – LARKS***

*Eremophila alpestris* – horned lark

***APODIDAE – SWIFTS***

*Aeronautes saxatalis* – white-throated swift

***CAPRIMULGIDAE – GOATSUCKERS***

*Chordeiles minor* – common nighthawk

***CATHARTIDAE – NEW WORLD VULTURES***

*Cathartes aura* – turkey vulture

***COLUMBIDAE – PIGEONS AND DOVES***

*Zenaida macroura* – mourning dove

## APPENDIX A (Continued)

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### **CORVIDAE – JAYS AND CROWS**

*Apelocoma californica* – western scrub-jay  
*Corvus corax* – common raven

### **CUCULIDAE – CUCKOOS AND ROADRUNNERS**

*Geococcyx californianus* – greater roadrunner

### **EMBERIZIDAE – BUNTINGS AND SPARROWS**

*Amphispiza belli* – sage sparrow  
*Amphispiza bilineata* – black-throated sparrow  
*Chondestes grammacus* – lark sparrow  
*Junco hyemalis* – dark-eyed junco  
*Pipilo crissalis* – California towhee  
*Pipilo maculatus* – spotted towhee  
*Spizella breweri* – Brewer’s sparrow  
*Spizella passerina* – chipping sparrow  
*Zonotrichia leucophrys* – white-crowned sparrow

### **FRINGILLIDAE – FINCHES**

*Carpodacus mexicanus* – house finch

### **ICTERIDAE – BLACKBIRDS AND ORIOLES**

*Icterus parisorum* – Scott’s oriole

### **MIMIDAE – THRASHERS**

*Mimus polyglottos* – northern mockingbird  
*Toxostoma redivivum* – California thrasher

### **ODONTOPHORIDAE – NEW WORLD QUAIL**

*Callipepla californica* – California quail

### **PARULIDAE – WOOD WARBLERS**

*Setophaga nigrescens* – black-throated gray warbler

### **PICIDAE – WOODPECKERS**

*Picoides nuttallii* – Nuttall’s woodpecker

### **PTILOGONATIDAE – SILKY-FLYCATCHERS**

*Phainopepla nitens* – phainopepla

## APPENDIX A (Continued)

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### **SYLVIIDAE – GNATCATCHERS**

*Polioptila caerulea* – blue-gray gnatcatcher

*Polioptila melanura* – black-tailed gnatcatcher

### **TIMALIIDAE – LAUGHINGTHRUSH AND WRENTIT**

*Chamaea fasciata* – wrentit

### **TROCHILIDAE – HUMMINGBIRDS**

*Calypte costae* – Costa’s hummingbird

### **TROGLODYTIDAE – WRENS**

*Campylorhynchus brunneicapillus* – cactus wren

*Salpinctes obsoletus* – rock wren

*Thryomanes bewickii* – Bewick’s wren

### **TURDIDAE – THRUSHES**

*Turdus migratorius* – American robin

### **TYRANNIDAE – TYRANT FLYCATCHERS**

*Myiarchus cinerascens* – ash-throated flycatcher

## **MAMMALS**

### **CANIDAE – WOLVES AND FOXES**

*Canis latrans* – coyote

### **GEOMYIDAE – POCKET GOPHERS**

*Thomomys bottae* – Botta’s pocket gopher

### **HETEROMYIDAE – POCKET MICE AND KANGAROO RATS**

*Dipodomys* sp. – kangaroo rat

### **LEPORIDAE – HARES AND RABBITS**

*Lepus californicus* – black-tailed jackrabbit

*Sylvilagus audubonii* – desert cottontail

*Sylvilagus bachmani* – brush rabbit

### **MURIDAE – RATS AND MICE**

*Neotoma* sp. – woodrat sp.

## APPENDIX A (Continued)

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### **SCIURIDAE – SQUIRRELS**

*Ammospermophilus leucurus* – white-tailed antelope ground squirrel

*Spermophilus beecheyi* – California ground squirrel

*Tamias* sp. – chipmunk

### **WILDLIFE SPECIES – INVERTEBRATES**

#### **ANTS, BEES, WASPS, AND HORNETS**

### **FORMICIDAE – ANTS**

*Pogonomyrmex* sp. – harvester ant

#### **BUTTERFLIES AND MOTHS**

### **ARCTIIDAE – TIGER AND LICHEN MOTHS**

*Arctia caja* – tiger moth

### **HESPERIIDAE – SKIPPERS**

*Erynnis funeralis* – funereal duskywing

### **LYCAENIDAE – BLUES, HAIRSTREAKS, AND COPPERS**

*Callophrys dumetorum* – bramble hairstreak

*Callophrys dumetorum perplexa* – perplexing (green) hairstreak

*Callophrys gryneus* – juniper hairstreak

*Callophrys gryneus loki* – ‘loki’ juniper hairstreak

*Callophrys gryneus thornei* – ‘Thorne’s’ juniper hairstreak

*Glaucopsyche lygdamus* – silvery blue

*Glaucopsyche lygdamus australis* – southern blue

*Plebejus acmon* – acmon blue

### **NYMPHALIDAE – BRUSH-FOOTED BUTTERFLIES**

*Euphydryas chalcedona* – chalcedon checkerspot

*Danaus plexippus* – monarch

*Junonia coenia* – common buckeye

*Vanessa* sp. – lady

*Vanessa annabella* – west coast lady

*Vanessa cardui* – painted lady

## APPENDIX A (Continued)

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### **PAPILIONIDAE – SWALLOWTAILS**

*Papilio polyxenes coloro* – desert black swallowtail

*Papilio rutulus* – western tiger swallowtail

*Papilio zelicaon* – anise swallowtail

### **PIERIDAE – WHITES AND SULFURS**

*Anthocharis* sp. – orangetip sp.

*Anthocharis sara* – Sara orangetip

*Anthocharis cethura* – desert orangetip

*Colias eurydice* – California dogface

*Colias eurytheme* – orange sulphur

*Colias harfordi* – Harford's Sulfur

*Euchloe hyantis* – pearly marble

*Euchloe lotta* – desert marble

*Pontia protodice* – common white

### **RIODINIDAE – METALMARKS**

*Apodemia mormo virgulti* – Behr's metalmark

\* Signifies introduced (non-native) species

## APPENDIX A (Continued)

---

INTENTIONALLY LEFT BLANK

# **APPENDIX B**

*2013 Jacumba Solar QCB Survey Field Notes*

3/21/13

Juana 4

BAD

1045 - 1610

high clouds

5 mph - 3/5

61° - 71°

CATH

BTSP

NOMO

BRAW

Pogo

HOFI

BTJR

Pygmy ante = <sup>coast</sup> Horned lizard pot.

unsp.

Kangaroo rats

CAQU

coyote scat

horse tracks

woodrat midden in a creosote bursicle

desert cottontail

termites = whiptail pot.

TUVU

LASP

ANISE small / tw / 1 (1230) HT

Antelope GS

Sage

Verdin!

Bl Throated SR

Perplex H.S. 11

Juniper H.S. 1

CORA

Orange tip HT 11

ephedra, erodium

Juniper

interesting buchubacter

Juniper, few creosote

fiddlenech

Jobba

Funeral DW III

common white HT

Few butterflies

many more heading west.

3/29/13

Jacumba Area 2

BAO

1030 - 1620

100% - 80%

70° - 73° F

3 - 5 mph gusts to 10 mph

CATO

WESP

RTHA

MODD

NOMO

DEJU

BUSH

Antelope ground sq

Cottontail

BTJR

LOSH

TUVU

BTSP

coyote

woodrat middens

PHAI

CORA

CADU

Sora orangey IIII

Amere swallowtail II

peardipmable IIII

common white III

Chalcedon C.S. III

green heron IIII

Junco heron IIII

Acorn blue II

Monarch

4/5/13

BAD

Jacumba

Aren 1

09:00

60° F

3-5 mph

clv

11:30

73° F

5-10 mph

clv

16:00

78° F

3-5 gusts to 10 clv

woodrat middens

Pogonomys sp.

btJR

western whiptail

CAGU

BTSP

CATO

SPTO

CAS

Antelope G.S.

BTJR

CORA

CATH

GRRO

Cottontail

11 olive-backed chachalate 11

Funeral dusky wing 11 11 11

Orange tip 11 11 11 11

Pearly nuthatch 111

Junco Hairstreak 11 11

sulphur 11

Cal dogface 1

cal buckeye 11

BAO

Jacumba 3

4/11/2013

0830-1630

60°F - 74°F

clr - clr

1-5 mph w/ gusts to 10 mph

Sara's orange tip 1111 11

marble 111

Anise swallowtail 111

chalcidon 11

buckeye 111

blue sp 1111

Juniper hairstreak 1111 111 111

Cal. dogface 11

RTHA

CAWR (heard)

CATO

BUSH

HOFI

NUWO

CORA

Antelope g.s.

BTSP

cottontail

WCSP

coyote (trks)

REWR

LGS.

So. pac. diamondback

fence lizard

BTJR

GRRO

MADO

|         |      |           |
|---------|------|-----------|
| 1200    | 1600 | 4/19/2013 |
| Ta 73   | 77   | Jacumba   |
| Tg 72   | 75   | Area 1    |
| 0%cc    | 0    | GOB       |
| 4-8 mph | 4-8  |           |

Juniper hairst. III  
 Lady sp I

|      |               |
|------|---------------|
| BTSP | GATH          |
| CORA | CATO          |
| CHSP | RTHA          |
| ATFL | HOLA (several |
| BBWR | randomly      |
|      | located)      |

BTJR

Nectar - all dried up  
 similar to area 2 on  
 this date. Lasthenia dried  
 or gone. Shrubs done  
 flowering.  
 No host plant

0800

1200

4/19/2013

Ta 60

73

Jacumba

Tg 63

72

QCB

4-8 mph

4-8 w gusts to 11

Area 2

0% CC

0 CC

CATO

BRSP

CATH

BUSH

CHSP

DEJU

BTJR-M

WCSP

BEWR

BTSP

HOLA

RTHA

Sideblotch-R CORA

ATFL

Audcottontail-M

SCOR

COTHU

Laotemia dried up

Host plant: Not observed

Nectar source: Very limited

Laot is dry and no other  
observed except agave. Shrub  
& ann. inflor are all or  
almost dried.

Ladysp.

Desert Marble 111

6

0905

68 TA

70 Tg

3070cc

0-1 wind

3/18

Jacumba 3

1300

84T486 Tg

Sara O'tip II

Southern Blue II (I think)

Behr's Metalmark I

Lady Sp (fast flying) I

Anise (small) II

Funeral duskwing II

Thornes (pin) 2; I

Desert orange tip III

BTSP

DESU

CORA

WCSP

BUSH

BGGN

just starting bloom  
 fiddle neck - small very few  
 erodium in bloom

1300  
84TA 86Tg  
5% CC  
0-5 MPH

Sara  
Orang tip III  
Desert 0' tip IIII  
Amie I  
Lady Sp I

3/18  
Jacumba 4

1700  
2-6 gusts to 8  
50% CC  
Ta 80 Tg 84

Red soil - Lasthenia blooming  
very open with large  
gravel/rock  
Rest of soil granitic. Lots of  
dead shrubs. Very open

DEJU  
HOLA  
CHSP  
CORA  
NOMCO

Jacumba GCB Area 2

3/21/13

TLW

S: 0930

E: 1530

high clouds

clear skies

winds 3-6mph

winds 3-6mph

60°F

70°F

BTSP

juniper nectar source

NOMO

deerweed

CAQU

buckwheat

juniper HS

ephedra

Sara's OT

Behr's mm

chipmunk

CORA

HPFI

TWVU

desert cottontail rabbit

black-tailed jackrabbit

BTGW (black-throated gray warbler)

4/17/13

190 mi

- Area 3 -

Jacumba - QCB - Week 4 make-up

Onsite

0830

Skies: 0% cc

Wind: 0-3 mph

Temp: 64°F

Offsite

1415

0% cc

1-4 mph, 7-12 gusts

73°F

W. whiptail

WTSW

BT jackrabbit

CORA

Chalcedon checkerspot

1

WCSP

BUSH

Phaino ♂

Br. rabbit

Zebra-tailed liz.

NOMO

CATH

TUVU

W. fence liz.

BTSP

Black-throated sparrow

Nectar

Ephedra sp.

Erodium cicut.

Goldfields

Yucca whipplei

Ericameria lin.

Ranchers poplar

Jojoba

Lotus scop.

Lemmon linanthus

Jacumba Solar Area 2

T.W.

2/11/10

S: 1100

clear

air 74°F; ground 76°F

5-8 mph

E: 1700

clear

80°F ground; 84°F air

< 2 mph

SCJA

western tiger swallowtail

RTTK

Scout

Sage's orange tip

black-tailed jack rabbit

Junco

Painted lady

house swallow

CRP

green hairstreak

Chalcid checkerspot

NOMO

w. fence lizard

BTSP

WESP

Jacumba Solar Area 3- OUB Surveys

3/25/13

1/3

2

5:420

clear skies

winds ~ 2 mph

60°F air; 66°F ground

1430

clear skies

winds 6-8 mph

76°F air; 78°F ground

Black-tailed jackrabbit

BTSP

Juniper "Joki" hairsnake

pearly marble

PHAI

SCJA

Blue sp. unknown

Gusis orange tip

green hairsnake

arise snouttail

br. rabbit

BUSH

TWU

CATH

WESP

Nectar:

goldfields

ephedra sp.

yucca whip.

lot sec

amsonia sp.

erodium ac.

Jacumba Solar BUS Area 1

TW

2/21/13

G: 0930

101 cc

winds 2-2 mph

air temp 65°F, ground 1.6°F

1450

hazy

winds 4-6 mph

air temp 75°F, ground 80

CAQU

BTSP

arise swallowtail

black-tailed jockrabbit

brush rabbit

CAWR

chalcedon checkerspot

juniper "loki" hairstreak

pearly marbles

Nectar sources:

yucca whip

goldfields

ero cic

Jacumba Solar Area 3 - Quinc  
TLW

S: 0830

clear skies

winds 4 2mph

65°F air; 70°F ground

BTSP

blue-tailed jackerabbit  
leki haircreek

Sard's orangetip

Harford's sulfur

California dogface

HuFI

MODD

CORA

TLW

4/3/13

E: 1415

clear skies

winds 3-4mph

81°F air; 81°F ground

goldfields are in bloom

other nectar sources are  
low.

## Dudek Survey Log

| Record: 185        |                                                                         |
|--------------------|-------------------------------------------------------------------------|
| Surveyor           | kmuri@dudek.com                                                         |
| Surveyor(s)        | Kamarul Muri                                                            |
| Surveyor (other)   | Kamarul Muri                                                            |
| Survey Date        | 2013-03-14                                                              |
| Project Name Other | Jacumba Solar                                                           |
| Survey Area        | 1                                                                       |
| Survey Type Other  | QCB                                                                     |
| iForm Survey Notes | See field map for special status spp locations: B-LOSH, B-HOLA, M-BTJR. |
| Additional Notes?  | Capture hand-written field notes. Capture hard-copy map data            |

| Start          |          |
|----------------|----------|
| Start Time     | 09:45:00 |
| Temperature    | 69       |
| Cloud Cover    | 0        |
| Wind Speed     | 8        |
| Wind Direction | N        |

| End            |          |
|----------------|----------|
| End Time       | 15:05:00 |
| Temperature    | 78       |
| Cloud Cover    | 0        |
| Wind Speed     | 6        |
| Wind Direction | N        |

| Hard-copy Map Data |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description        | Special status spp locations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Capture Image      |  An aerial photograph of a landscape, likely a wetland or marsh area, with a network of light-colored, winding paths or roads. A yellow line outlines a specific survey area. In the bottom right corner, there is a legend with two entries: a yellow square labeled 'Survey Area 1' and a red square labeled 'Total Project Area - Quino Surveys'. Below the legend, the text 'Survey Area 1' and 'Total Project Area - Quino Surveys' is printed. |

| Hard-copy Map Data |                                                                                                                                                                                                                                                                                                                                                             |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description        | Special status spp locations                                                                                                                                                                                                                                                                                                                                |
| Capture Image      |  An aerial photograph of a landscape, similar to the one above, showing a network of light-colored paths or roads. A yellow line outlines a specific survey area. The image is a close-up of the survey area, showing more detail of the terrain and the winding paths. |

## Dudek Survey Log

| Record: 190        |                                  |
|--------------------|----------------------------------|
| Surveyor           | kmuri@dudek.com                  |
| Surveyor(s)        | Kamarul Muri                     |
| Surveyor (other)   | Kamarul Muri                     |
| Survey Date        | 2013-03-25                       |
| Project Name Other | Jacumba Solar Project            |
| Survey Area        | 1                                |
| Survey Type Other  | QCB                              |
| Additional Notes?  | Capture hand-written field notes |

| Start          |                                               |
|----------------|-----------------------------------------------|
| Start Time     | 09:30:00                                      |
| Temperature    | 68                                            |
| Cloud Cover    | 0                                             |
| Wind Speed     | 2                                             |
| Wind Direction | N                                             |
| Notes          | Winds from N, kicked up to 8 mph by 10:00 am. |

| End            |          |
|----------------|----------|
| End Time       | 14:55:00 |
| Temperature    | 72       |
| Cloud Cover    | 10%      |
| Wind Speed     | 8        |
| Wind Direction | N        |

## Hand-written Field Notes

[illegible]

# Dudek Survey Log

| Record: 202        |                                  |
|--------------------|----------------------------------|
| Surveyor           | kmuri@dudek.com                  |
| Surveyor(s)        | Kamarul Muri, Other              |
| Surveyor (other)   | Shane Valiere, Jon Walker        |
| Survey Date        | 2013-04-04                       |
| Project Name Other | Jacumba Solar                    |
| Survey Area        | Area 4                           |
| Survey Type Other  | QCB                              |
| Additional Notes?  | Capture hand-written field notes |

| Start          |          |
|----------------|----------|
| Start Time     | 10:00:00 |
| Temperature    | 76       |
| Cloud Cover    | 80%      |
| Wind Speed     | 5        |
| Wind Direction | NW       |

| End            |          |
|----------------|----------|
| End Time       | 15:00:00 |
| Temperature    | 76       |
| Cloud Cover    | 50%      |
| Wind Speed     | 9        |
| Wind Direction | SW       |

## Hand-written Field Notes

[illegible]

2 Apr 13

Jacumba QCB

Serra Area 4

Week 3

w/ Shane Valiere

1000

0% clouds

2-4 mph winds

64°

1600

0% clouds

3-5 mph

82°

Flowering plants + butterflies

lus cal.

Ero cil.

Amos men.

W. Crisp. sp.

Phacel. sp.

west coast lady - 1

Sara's orange tip - III

Bramble hairstreak - III

lady sp. - 1

silvery blue - 1

skipper sp - black - 1

4/4/13 Jacumba QCB #2 (JDP)  
0700 - 1600 (9hr) miles: ~~28.6~~

@Site: 0830 - 1430

Env: 0830; 80% CC; W 0-1; Ground 70°F; Air 71°F  
1100; W 3-8; 90% CC; Ground 80°F; Air 74°F  
1315; Ground 80°F; W 3-6, gusts to 10 mph; 90% CC  
→ Air 74°F

1430; 90% CC; W 3-6 g to 10; 80°F. Ground; Air 74°F

- More flowers, butterflies, hilltops/ridges/topo features  
North of HWY than on South side.

|                               |                                                                          |                                                 |
|-------------------------------|--------------------------------------------------------------------------|-------------------------------------------------|
| Juniper H/S                   | B-Con. night hawk                                                        | Goldfields (f) scattered                        |
| Com. W.                       | B-Tuwa; B-HOFI                                                           | Yucca (f)                                       |
| Bher's mm                     | M-BTJR; R-S-b. liz                                                       | Erodium (f)                                     |
| Chalcedon ck.                 | B-BTGW; B-CORA                                                           | Ealebroom (b)                                   |
| Tiger moth                    | Black-throated grey<br>warbler                                           | Overall flowers<br>are sparse                   |
| Fun. ship.                    |                                                                          | throughout South<br>side                        |
| Sora OT                       | M-Chipmunk; M-B.p.g.                                                     | Juniper (some berries)<br>(limited individuals) |
| Blue (longish sp.) fly-by     | (black/white striped<br>tail; 1 white<br>lateral stripe/lateral<br>view) | Rattlesnake eyes (f)                            |
|                               | B-ROWK; B-mgbo                                                           | Wishbone bush (f)                               |
|                               | R-Gran. gnat. liz.                                                       | Bark wheat sp. (b)                              |
|                               | Renew collard liz.<br>in region                                          | Deerweed (b)                                    |
|                               | black collar;<br>tail: cream/black<br>banded                             | Indian p-b. (f)                                 |
| R-Banded Rock<br>Lizard       | body/head - tan overall<br>+ irregular brown bands.<br>(photo)           |                                                 |
| Lia. boulders<br>North of HWY | M-Bobcat (v!) + (sc)                                                     |                                                 |
| B-CAQU                        | M-Coyote (sc)                                                            |                                                 |
|                               | M-Jes. cottontail-rab.                                                   |                                                 |

4/11/13 Jacumba 4 QCB Survey (JDP)  
miles: ~~13.9~~

0715-1615 (9hr)

0845-1445

ENW: W2-6; 5%CC; Air 69°F; ground 75°F  
1100; W3-8, gusts to 12; Air 74°F; 5%CC; ground 77°F  
(highest ridge point in survey area on hill)

1300; W5-12, gusts to 18 mph; 0%CC; Air 78°F; Ground 83°F

1445; W8-12, gusts 12-20 mph; 0%CC; Air 78°F; Ground 82°F

Com W. L.

Orange sulphur

Junco H.S.

B. Nono; B. HOFI

Ⓢ M-BTR; D-CORA

B-CAQU; B-PHAN

B-ANYKE; B-CONE

M-Coyte (sc); M-K-rat

B-TUVU (signed)

B-Owl pellet (sp)

Ⓢ R-WWT; B-CATO

B-WREN; M-Nestling (midden)

Goldfields (f - driving some)

Erodium (f - driving most)

Yucca (f)

Scale brown (f/fr)

rattlesnake eggs (f)

Quino - Jacumba Solar 4/2/13

Start = 1000

End = 1600

Wind = 2-4 mph

Cloud = 25%

Temp. = 64° F

Wind = 3-5 mph

Cloud = 25%

Cloud = 25%

Surveyors - Shane Valiere  
- Vipul Joshi

Potential Nectaring plants

- Boundary Goldenbush (*Ericameria  
brachylepis*)

- Goldfields (*Lasthenia* spp.)

Butterflies

11 Sara's Orange-tip

11 Green Hairstreak

1 Arise or Desert Swallowtail

1 Lokei Hairstreak

1 Unidentified Blue - Potentially  
Silvery Blue

# **APPENDIX I**

*Jacumba Solar*

*Biological Open Space Memorandum*



## MEMORANDUM

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**To:** Ashley Gungle, San Diego County Planning and Land Use  
**From:** David Hochart, Brock Ortega, Dudek  
**Subject:** Jacumba Solar Biological Open Space Memorandum  
**Date:** June 21, 2013  
**Attachment(s):** Figures 1–6

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### INTRODUCTION

Aries Solar Holding, LLC is in the process of evaluating the environmental effects related to development of a 108-acre solar development project within a 305-acre ownership in southeastern San Diego County (Figures 1 and 2). This includes development of the solar farm and the associated gen-tie line, and all construction related disturbances as seen in Figure 3. To satisfy habitat loss mitigation requirements for the development of solar facilities on this Project, Aries Solar Holding, LLC is proposing to balance development with on-site preservation of habitat – providing a contiguous block of habitat. In order to locate and characterize natural communities, including habitats for special-status species within the biological open space (BOS), Dudek conducted vegetation mapping in accordance with the County of San Diego Report Format and Content Requirements (County of San Diego 2010a). This memo provides the results of the vegetation mapping and outlines the potential for special-status plant and wildlife species to occur within the BOS. The memo also includes an overall assessment of habitat function and value within the BOS.

### ENVIRONMENTAL SETTING (EXISTING CONDITIONS)

The BOS is undeveloped and on-site elevation ranges from approximately 3,010–3,160 feet above mean sea level (amsl). The site is located 3.5 miles east of the community of Jacumba, south of Old Highway 80 (the highway traverses the northern portion of the site), and north of the international border (see Figure 2). The site is generally flat except for a low hill near its southwest corner, and several unvegetated channels generally flow to the northwest across the site. The project will include an interconnection to San Diego Gas & Electric's (SDG&E's) ECO Substation located approximately 1,000 feet to the east of the project site (see Figure 3). Land use on site, and in the surrounding areas, consists of open space in both private and federal lands holdings (Figure 3). BLM lands are adjacent to the project limits and a 500 kV substation is currently under construction to the east. A portion of BOS borders Mexico and is

separated by the International Border Fence (fence). There are breaks in the fence about 1,300 feet west of the Project within BLM lands, and approximately 3,000 feet to the east that allow for north/south wildlife movement. The mitigation site is generally within the Peninsular Range in a transitional area between the coast and the desert. It is in a dry climate with average temperatures near the community of Jacumba ranging from approximately 34–94°F. This community generally receives an average rainfall of less than 15 inches per year (Western Regional Climate Center 2012).

## VEGETATION COMMUNITIES

### On-Site Vegetation Communities

Vegetation communities and land uses on and within 100 feet of the site were mapped in the field directly onto a 200-foot-scale (1 inch = 200 feet), aerial photograph–based field map of the mitigation site. Following completion of the fieldwork, all vegetation polygons were transferred to a topographic base and digitized using ArcGIS and a geographic information system (GIS) coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover present on site was determined.

Consistent with the latest County of San Diego *Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a), vegetation community classifications used in this report follow Holland (1986) and Oberbauer et al. (2008), where feasible, with modifications to accommodate the lack of conformity of the observed communities to those of Holland (1986) or Oberbauer et al. (2008). Biologists conducted vegetation mapping using the *Draft Vegetation Communities of San Diego County* (Oberbauer et al 2008), which is a local (i.e., San Diego County) refinement of the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). The *Manual of California Vegetation* (2nd edition) (MCV2; Sawyer et al. 2009) was utilized as an additional reference to help determine characteristics (such as percentage species cover) of various classifications.

Biologists mapped 22 1-acre plots within the project boundary in order to determine the percent cover of California juniper (*Juniperus californica*). Each California juniper was mapped using a Trimble GeoXH GPS unit and the diameter of each tree was recorded. In addition, other shrubs were GPS'd in 2 of the plots in order to provide a comparison of the California junipers and other shrubs on site. The data recorded was then used to calculate the percent cover of California junipers within each 1-acre plot. The purpose of this exercise was to provide guidance for updating the vegetation map, specifically regarding Peninsular Juniper Woodland and Scrub. Following this, Dudek met with the County of San Diego in order to determine the best approach to mapping the Peninsular Juniper Woodland and Scrub. The County agreed that areas with  $\geq 4\%$

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cover of California juniper will be mapped as Peninsular Juniper Woodland and Scrub. The additional data collected provided enough information to determine which areas met these mapping requirements for areas considered Peninsular Juniper Woodland and Scrub and other vegetation communities.

Five plant communities and land cover types were mapped by Dudek within the Project area and BOS, including: disturbed land, Peninsular juniper woodland and scrub, semi-desert chaparral, Sonoran mixed woody scrub, and upper Sonoran subshrub scrub. The acreages of each community type within the project site are shown in Table 1. Descriptions of each vegetation community (with Holland numeric codes) are provided following Table 1. Their spatial distributions are presented on Figure 4.

**Table 1**  
**Vegetation Communities and Land Cover Types**

| Habitat Types/Vegetation Communities          | Code <sup>1</sup> | Existing Acreage |
|-----------------------------------------------|-------------------|------------------|
| <i>Upland Scrub and Chaparral</i>             |                   |                  |
| Sonoran Mixed Woody Scrub*                    | 33210             | 3.2              |
| Semi-Desert Chaparral*                        | 37400             | 179.4            |
| Upper Sonoran Subshrub Scrub*                 | 39000             | 3.6              |
| <i>Upland Woodland and Savannah</i>           |                   |                  |
| Peninsular Juniper Woodland and Scrub*        | 72320             | 103.3            |
| <i>Non-Native Communities and Land Covers</i> |                   |                  |
| Disturbed Land                                | 11300             | 13.2             |

**Note:** The above acreages do not include the gen-tie alignment.

<sup>1</sup> Holland (1986) as modified by Oberbauer et al. (2008)

\* Considered special-status by the County (2010b).

### ***Disturbed Land (11300)***

Disturbed land refers to areas that have been permanently altered by previous human activity that has eliminated all future biological value of the land for most species. The native or naturalized vegetation is no longer present and the land lacks habitat value for sensitive wildlife, including potential raptor foraging.

Disturbed land found throughout the study area consists primarily of unpaved roads (Figure 4). These roads have been graded and contain little native vegetation. Disturbed land is scattered in various locations throughout the study area.

### **Peninsular Juniper Woodland and Scrub (72320)**

Peninsular juniper woodland and scrub consists of relatively dense pinon woodland dominated by Parry pinyon (*Pinus quadrifolia*), with California juniper (*Juniperus californica*) occurring within xeric sites below the trees dripline. This community occurs in alluvial fans and desert slopes that are slightly lower and more xeric than the peninsular pinon woodland community (72310), with which it intergrades (Holland 1986). Other dominant species include: Parry's beargrass (*Nolina parryi*), Sonoran scrub oak (*Quercus turbinella*), Mojave yucca (*Yucca schidigera*), and sagebrush (*Artemisia tridentata*).

Peninsular juniper woodland and scrub observed on site contains California juniper at greater than 4% absolute cover and lacks pines (*Pinus* sp.). Other commonly occurring species include creosote bush, jointfir (*Ephedra* sp.), goldenbush (*Ericameria* spp.), and snakeweed (*Gutierrezia* sp.). Peninsular juniper woodland and scrub occurs in large patches throughout the study area (Figure 4).

### **Semi-Desert Chaparral (37400)**

According to Holland (1986), semi-desert chaparral is similar to northern mixed chaparral (37710), but it is typically not quite as tall (1.5–3 m) (4.9–10 feet) and more open. Dominant taxa within this community include *Juniperus* sp., *Eriogonum* sp., and *Opuntia* sp. Characteristic species include chamise, *Arctostaphylos* sp., *Ceanothus* sp. *Quercus* sp. and a variety of other shrubs and subshrubs. This community is found on the high desert plateaus and escarpment of the Peninsular Range in San Diego County, associated with drier, cooler winters (Holland 1986).

On site, semi-desert chaparral is found within areas where California juniper is less prominent (less than 4% absolute cover), including areas where California junipers have burned in the past and have not yet recovered. The semi-desert chaparral on site includes creosote bush, jointfir, goldenbush, cholla, Eastern Mojave buckwheat, and deerweed (*Acmispon glaber*). Semi-desert chaparral is the dominant vegetation community on site (Figure 4).

### **Sonoran Mixed Woody Scrub (33210)**

According to Holland (1986), Sonoran mixed woody scrub is similar to Sonoran mixed woody and succulent scrub (33220), but with additional woody species. Characteristic species include creosote bush, burrobush (*Ambrosia dumosa*), ocotillo, *Opuntia* sp., brittlebush (*Encelia farinosa*), and *Krameria* sp. In San Diego County, this community is associated with lower alluvial fans, above the desert floor and below the coarse mountain substrates (Holland 1986).

Sonoran mixed woody scrub on site lack California juniper and are dominated by creosote bush, in addition to other shrub and succulent cover. Other commonly occurring species include jointfir, cholla, goldenbush, snakeweed, and strawberry cactus (*Mammillaria dioica*). Sonoran mixed woody scrub occurs in one small patch toward the central portion of the study area (Figure 4).

### **Upper Sonoran Subshrub Scrub (39000)**

Upper Sonoran subshrub scrub is comprised of low, fairly penetrable scrub of soft-wooded, summer-dormant, drought-tolerant shrubs (Holland 1986). It is usually associated with well drained soils derived from sandstone, shale, or sterile white diatomaceous deposits. In San Diego County, it intergrades with some chaparrals at higher elevations. Dominant vegetation found on site varies, but usually includes narrowleaf goldenbush (*Ericameria linearifolia*), Eastern Mojave buckwheat (*Eriogonum fasciculatum* var. *polifolium*), bladderpod spiderflower (*Isomeris arborea arborea*), or California jointfur (*Ephedra californica*) (Holland 1986).

Areas mapped as upper Sonoran subshrub scrub are dominated by Eastern Mojave buckwheat, goldenbush, jointfir, cholla, and deerweed. This area contains native shrub cover, but lacks California juniper and creosote bush. Sonoran subshrub scrub occurs in one patch located along the southern portion of the study area (Figure 4).

### **Gen-Tie Vegetation Communities**

The alignment and configuration (i.e., overhead vs. underground), has not been determined at this time. For purposes of disclosing all potential ground disturbances associated with the project, the preliminary gen-tie study area has been provided on Figure 3. The gen-tie study area consists of peninsular juniper woodland and scrub (see Figure 3 and vegetation description include above).

### **SPECIAL-STATUS PLANT AND WILDLIFE SPECIES**

In addition to the compensation for impacts to special-status vegetation communities, the BOS are being proposed to compensate for impacts to special-status plant species and habitat for special-status wildlife species associated with the project.

#### **Special-Status Plant Species**

Table 2 provides a list of special-status plant species with potential to occur within the study area. This list was developed by Dudek by reviewing the physical characteristics of the site and other projects near the project area, the County of San Diego Sensitive Plant List (County of San Diego 2010c), and special-status plants that occur within the California Natural Diversity Database

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(CNDDB) 5-mile search (CDFG 2012) or which have been identified within the California Native Plant Society (CNPS) in the Jacumba 7.5-minute USGS quadrangle and surrounding eight quadrangles (CNPS 2012). This table is organized by the County's listing status (i.e., List A-D) and also includes the status of the species, its primary habitat associations, its life form, and the known elevation ranges for which the species is known to occur. Protocol special-status plant species surveys for the project will be completed at later date.

**Table 2**  
**Special-Status Plant Species and Potential To Occur Within the Study Area**

| Scientific Name                                                                         | Status <sup>1</sup><br>(Federal/ State/Rare<br>Plant Rank List) | Primary Habitat Associations/Life Form/<br>Blooming Period/Elevation                                                                                           |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>List A (Rare, Threatened, or Endangered in California and Elsewhere)</i>             |                                                                 |                                                                                                                                                                |
| <i>Acmispon</i> [=Lotus] <i>haydonii</i> Pygmy lotus                                    | None/None/1B.3                                                  | Pinyon and juniper woodland, Sonoran desert scrub; rocky/perennial herb/Jan.–June/1,706 to 3,937 feet                                                          |
| <i>Astragalus douglasii</i> var. <i>perstrictus</i> Jacumba milk-vetch                  | None/None/1B.2                                                  | Chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, valley and foothill grassland/ rocky/ perennial herb/ Apr.–Jun./ 2,953–4,495 feet |
| <i>Deinandra floribunda</i> Tecate tarplant                                             | None/None/1B.2                                                  | Chaparral, coastal scrub/ annual herb/Aug.–Oct./230–4,003 feet                                                                                                 |
| <i>Ericameria cuneata</i> var. <i>macrocephala</i> Laguna Mountains goldenbush          | None/None/1B.3                                                  | Chaparral; granitic/shrub/ Sept.–Dec./3,921–6,070 feet                                                                                                         |
| <i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery                | FE/SE/1B.1                                                      | Coastal scrub, valley and foothill grassland, vernal pools, mesic areas/annual-perennial herb/Apr.–June/ 65–2,034 feet                                         |
| <i>Galium angustifolium</i> ssp. <i>jacinticum</i> San Jacinto Mountains bedstraw       | None/None/ 1B.3                                                 | Lower montane coniferous forest/perennial herb/June–August/4,429–6,890 feet                                                                                    |
| <i>Heuchera brevistaminea</i> Mt. Laguna alumroot                                       | None/None/1B.3                                                  | Broadleafed upland forest, chaparral, cismontane woodland, riparian forest; rocky/rhizomatous herb/Apr.–July/4,495–6,562 feet                                  |
| <i>Hulsea californica</i> San Diego sunflower                                           | None/None/1B.3                                                  | Chaparral, lower montane coniferous forest, upper montane coniferous forest/openings and burned areas/perennial herb/Apr.–June/3,002–9,564 feet                |
| <i>Lupinus excubitus</i> var. <i>medius</i> Mountain Springs bush lupine                | None/None/1B.3                                                  | Pinyon and juniper woodland, Sonoran desert scrub/shrub/ Mar.–May/1,394–4,495 feet                                                                             |
| <i>Streptanthus campestris</i> Southern jewel-flower                                    | None/None/1B.3                                                  | Chaparral, lower montane coniferous forest, pinyon and juniper woodland/rocky/ perennial herb/ May–July/ 2,953–7,546 feet                                      |
| <i>Tetracoccus dioicus</i> Parry's tetracoccus                                          | None/None/1B.2                                                  | Chaparral, coastal scrub/ perennial deciduous shrub/ Apr.–May/ 541–3,281 ft.                                                                                   |
| <i>Xylorhiza orcuttii</i> Orcutt's woody aster                                          | None/None/1B.2                                                  | Sonoran desert scrub/perennial herb/Mar.–Apr./0–1,197.5 feet                                                                                                   |
| <i>List B (Rare, Threatened, or Endangered In California But More Common Elsewhere)</i> |                                                                 |                                                                                                                                                                |
| <i>Astragalus insularis</i> var. <i>harwoodii</i> Harwood's milkvetch                   | None/None/2.2                                                   | Desert dunes, Mojavean desert scrub; sandy or gravelly/annual herb/Jan.–May/0 to 2,329 feet                                                                    |
| <i>Ayenia compacta</i> California ayenia                                                | None/None/2.3                                                   | Mojavean desert scrub, Sonoran desert scrub; rocky/perennial herb/Mar.–Apr./492 to 3,593 feet                                                                  |

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**Table 2**  
**Special-Status Plant Species and Potential To Occur Within the Study Area**

| Scientific Name                                                                                           | Status <sup>1</sup><br>(Federal/ State/Rare<br>Plant Rank List) | Primary Habitat Associations/Life Form/<br>Blooming Period/Elevation                                                             |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <i>Bursera microphylla</i><br>Little-leaf elephant tree                                                   | None/None/2.3                                                   | Sonoran desert scrub; rocky/deciduous tree/June–July/656–2,297 feet                                                              |
| <i>Calliandra eriophylla</i><br>Pink fairy duster                                                         | None/None/2.3                                                   | Sonoran desert scrub; sandy or rocky/ deciduous shrub/ Jan.—Mar./393–4,291 feet                                                  |
| <i>Chamaesyce arizonica</i><br>Arizona spurge                                                             | None/None/2.3                                                   | Sonoran desert scrub; sandy/ perennial herb/Mar.—Apr./ 164–984 feet                                                              |
| <i>Dieteria asteroides</i> var. <i>lagunensis</i><br>Mount Laguna aster                                   | None/ SR/2.1                                                    | Cismontane woodland, lower montane coniferous forest/<br>perennial herb/ Jul.—Aug./ 2,625–7,874 feet                             |
| <i>Eucnide rupestris</i><br>Rock nettle                                                                   | None/None/2.2                                                   | Sonoran desert scrub/annual herb/Dec.—Apr./1,640–1,969 feet                                                                      |
| <i>Geraea viscida</i><br>Sticky geraea                                                                    | None/None/2.3                                                   | Chaparral (often in disturbed areas)/perennial herb/May–June/<br>1,476–5,577 feet                                                |
| <i>Herissantia crispa</i><br>Curly herissantia                                                            | None/None/2.3                                                   | Sonoran desert scrub/annual-perennial herb/Aug.—Sept./<br>2,296–2,378 feet                                                       |
| <i>Hulsea mexicana</i><br>Mexican hulsea                                                                  | None/None/2.3                                                   | Chaparral (volcanic, often on burns or disturbed areas)/annual-<br>perennial herb/Apr.—June/approximately 3,937 feet             |
| <i>Ipomopsis tenuifolia</i><br>Slender-leaved ipomopsis                                                   | None/None/2.3                                                   | Chaparral, pinyon and juniper woodland, Sonoran desert scrub/<br>gravelly or rocky/ perennial herb/ Mar.—May/ 328–3,937 feet     |
| <i>Linanthus bellus</i><br>Desert beauty                                                                  | None/None/2.3                                                   | Chaparral (sandy)/annual herb/Apr.—May/3,281–4,593 feet                                                                          |
| <i>Lycium parishii</i><br>Parish's desert-thorn                                                           | None/None/2.3                                                   | Coastal scrub, Sonoran desert scrub/perennial shrub/Mar.—<br>Apr./1,001–3,281 feet                                               |
| <i>Malperia tenuis</i><br>Brown turbans                                                                   | None/None/2.3                                                   | Sonoran desert scrub; sandy, gravelly/annual herb/Mar.—Apr./49<br>to 1,099 feet                                                  |
| <i>Matelea parvifolia</i><br>Climbing spearleaf                                                           | None/None/2.3                                                   | Mojavean desert scrub, Sonoran desert scrub; rocky/ perennial<br>herb/ Mar.—May/ 1,443–3,592 feet                                |
| <i>Mentzelia hirsutissima</i><br>Hairy stickleaf                                                          | None/None/2.3                                                   | Sonoran desert scrub; rocky/annual herb/March–May/<br>0–2,297 feet                                                               |
| <i>Nemacaulis denudata</i> var. <i>gracilis</i><br>Slender woolly-heads                                   | None/None/2.2                                                   | Coastal dunes, desert dunes, Sonoran desert scrub/annual<br>herb/Apr.—May/164–1,312 feet                                         |
| <i>Selaginella eremophila</i><br>Desert spike-moss                                                        | None/None/2.2                                                   | Chaparral, Sonoran desert scrub; gravelly or rocky/rhizomatous<br>herb/June/656–2,953 feet                                       |
| <i>Senecio aphanactis</i><br>Rayless ragwort                                                              | None/None/2.2                                                   | Chaparral, cismontane woodland, coastal scrub; sometimes<br>alkaline/annual herb/Jan.—Apr./49–262 feet                           |
| <i>List C (Plants Which May Be Rare, But Need More Information To Determine Their True Rarity Status)</i> |                                                                 |                                                                                                                                  |
| <i>Berberis fremontii</i><br>Fremont barberry                                                             | None/None/3                                                     | Chaparral, Joshua tree woodland, pinyon and juniper<br>woodland/rocky/ perennial evergreen shrub/ Apr.—June/<br>2,756–6,070 feet |

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**Table 2**  
**Special-Status Plant Species and Potential To Occur Within the Study Area**

| Scientific Name                                                                                       | Status <sup>1</sup><br>(Federal/ State/Rare<br>Plant Rank List) | Primary Habitat Associations/Life Form/<br>Blooming Period/Elevation                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>List D (Plants Of Limited Distribution And Are Uncommon, But Not Presently Rare Or Endangered)</i> |                                                                 |                                                                                                                                                                                                                                                       |
| <i>Caulanthus simulans</i><br>Payson's jewel-flower                                                   | None/None/4.2                                                   | Chaparral, coastal scrub/sandy, granitic/ annual herb/ (Feb.)<br>Mar.–May (June)/ 295–7,218 feet                                                                                                                                                      |
| <i>Horsfordia newberryi</i><br>Newberry's velvet-mallow                                               | None/None/4.3                                                   | Sonoran desert scrub; rocky/ shrub/Feb.—Dec./9–2,624 feet                                                                                                                                                                                             |
| <i>Pilostyles thurberi</i><br>Thurber's pilostyles                                                    | None/None/4.3                                                   | Sonoran desert scrub/perennial herb parasitic/Jan./0–1,198 feet                                                                                                                                                                                       |
| <i>Not on the County's Sensitive Plant List But Otherwise Designated As Special-Status</i>            |                                                                 |                                                                                                                                                                                                                                                       |
| <i>Cylindropuntia</i> (=Opuntia ) x <i>fosbergii</i><br>Pink cholla                                   | None/None/3                                                     | Sonoran desert scrub/stem succulent/Mar.–May/279 to<br>2,789 feet                                                                                                                                                                                     |
| <i>Linanthus maculatus</i><br>Little San Bernardino Mountains<br>linanthus                            | None/None/1B.2                                                  | Desert dunes, Joshua tree woodland, Mojavean desert scrub,<br>Sonoran desert scrub (sandy)/Mar.–May/639 – 6,807 feet                                                                                                                                  |
| <i>Mentzelia tricupsis</i><br>Spiny-hair blazing star                                                 | None/None/2.1                                                   | Mojavean desert scrub (sandy, gravelly, slopes, and washes)/<br>Mar.–May/492–4,199 feet                                                                                                                                                               |
| <i>Mentzelia tridentata</i><br>Creamy blazing star                                                    | None/None/1B.3                                                  | Mojavean desert scrub (rocky, gravelly, sandy)/Mar.–May/2,296<br>–3,805 feet                                                                                                                                                                          |
| <i>Mimulus diffusus</i><br>Palomar monkeyflower                                                       | None/None/4.3                                                   | Chaparral, lower montane coniferous forest (sandy or<br>gravelly)/Apr.–June/4,002–6,003 feet                                                                                                                                                          |
| <i>Pickeringia montana</i> var. <i>tomentosa</i><br>Woolly chaparral-pea                              | None/None/4.3                                                   | Chaparral (gabbroic, granitic, clay)/May–Aug./0–5,577 feet                                                                                                                                                                                            |
| <i>Pholistoma auritum</i> var. <i>arizonicum</i><br>Arizona pholistoma                                | None/None/2.3                                                   | Mojavean desert scrub/annual herb/March/902–2,740 feet                                                                                                                                                                                                |
| <i>Pseudorontium cyathiferum</i> Deep<br>Canyon snapdragon                                            | None/None/2.3                                                   | Sonoran desert scrub/Feb.–Apr./0–2,624 feet                                                                                                                                                                                                           |
| <i>Symphotrichum defoliatum</i><br>San Bernardino aster                                               | None/None/1B.2                                                  | Cismontane woodland, coastal scrub, lower montane coniferous<br>forest, meadows and seeps, marshes and swamps, valley and<br>foothill grassland (vernally mesic)/near ditches, streams,<br>springs/perennial rhizomatous herb/July–Nov./ 7–6,693 feet |

<sup>1</sup>Status

**Federal and state status:**

- FE: Federally listed as Endangered
- FT: Federally listed as Threatened
- SE: State listed as Endangered
- ST: State listed as Threatened
- SR: State listed as Rare

**California Rare Plant Rank (CRPR):**

- 1A: Plants presumed Extinct in California
- 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
- 2: Plants Rare, Threatened, or Endangered in California but more Common Elsewhere
- 3: Plants About Which More Information Is Needed – A Review List
- 4: Plants of Limited Distribution – A Watch List

**Threat Ranks**

- 1. Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- 2. Fairly endangered in California (20% to 80% of occurrences threatened)
- 3. Not very endangered in California (less than 20% of occurrences threatened or no current threats known).

## Special-Status Wildlife Species

Table 3 provides a list of special-status animal species with potential to occur within the study area. The list of special-status animal species with potential to occur was developed by Dudek and is based on our familiarity with the study area as a result of the recent site visit, past projects completed, and a review of available data described above (i.e., soils maps, CNDDDB records, (U.S. Fish and Wildlife Survey) USFWS data; publicly available technical studies, etc.).

Focused surveys for Quino Checkerspot Butterfly were conducted in 2013 per the USFWS survey requirements. Survey results were negative and have been provided to the USFWS.

Known occurrences of special status species are depicted on Figure 5.

**Table 3**  
**Special-Status Animal Species and Potential to Occur Within the Study Area**

| Scientific Name/<br>Common Name                                               | Status<br>(Federal/State/<br>County) <sup>1</sup> | Habitat Preferences/Requirements                                                                                                                                                    | Potential to Occur on Site?                                     |
|-------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <i>Reptiles and Amphibians</i>                                                |                                                   |                                                                                                                                                                                     |                                                                 |
| <i>Anaxyrus californicus</i><br>Arroyo toad                                   | FE/CSC/<br>Group 1, MSCP                          | Stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering                                                               | Unlikely—not known from area, and habitat is unsuitable.        |
| <i>Ensatina eschscholtzii klauberi</i><br>Large-blotched salamander           | None/CSC/<br>Group 1                              | Oak woodland, chaparral, coastal sage scrub, coastal dunes, conifer forest                                                                                                          | Very low—not known from the area and marginal habitat quality.  |
| <i>Rana aurora draytoni</i><br>California red-legged frog                     | FT/CSC/<br>Group 1, MSCP                          | Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands       | Unlikely—not known from area, and habitat is unsuitable.        |
| <i>Spea [=Scaphiopus] hammondi</i><br>Western spadefoot                       | None/CSC/<br>Group 2                              | Most common in grasslands, coastal sage scrub near rain pools or vernal pools; riparian habitat and road rut pools                                                                  | Marginal—no suitable habitat is present in the study area.      |
| <i>Taricha torosa torosa</i><br>Coast Range newt (Monterey County south only) | None/CSC/<br>Group 2                              | Coastal drainages from Mendocino County to San Diego County; lives in terrestrial habitats and will migrate over 1 kilometer to breed in ponds, reservoirs, and slow moving streams | Very low—no suitable habitat is present in the study area.      |
| <i>Anniella pulchra pulchra</i><br>Silvery legless lizard                     | None/CSC/<br>Group 2                              | Loose soils (sand, loam, humus) in coastal dune, coastal sage scrub, woodlands, and riparian habitats                                                                               | Yes, suitable habitat is present within most of the study area. |

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**Table 3**  
**Special-Status Animal Species and Potential to Occur Within the Study Area**

| Scientific Name/<br>Common Name                                                                          | Status<br>(Federal/State/<br>County) <sup>1</sup> | Habitat Preferences/Requirements                                                                                                                        | Potential to Occur on Site?                                                                                                |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <i>Aspidoscelis hyperythra beldingi</i><br>Belding's orange-throated whiptail                            | None/CSC/<br>Group 2, MSCP                        | Coastal sage scrub, chaparral, grassland, juniper and oak woodland; sandy soils, washes                                                                 | Yes, suitable habitat is present within the study area. Observed in the past during surveys on the ECO site                |
| <i>Aspidoscelis tigris stejnegeri</i><br>Coastal western whiptail                                        | None/None/<br>Group 2                             | Coastal sage scrub, chaparral; sandy areas, gravelly arroyos, or washes                                                                                 | Yes, suitable habitat is present within the study area.                                                                    |
| <i>Charina trivirgata</i><br>Rosy boa                                                                    | None/None/<br>Group 2                             | Rocky chaparral, coastal sage scrub, oak woodlands, desert and semi-desert scrub                                                                        | Yes, suitable habitat is present within the study area. Observed in the past during surveys on the Tule Project site.      |
| <i>Coleonyx switaki</i><br>Barefoot banded gecko                                                         | None/ST/<br>Group 2                               | Rocky, bouldery areas at the heads of canyons; elevation range is approximately sea level to 2,100 feet; range is near Borrego Springs and to the south | Very low—marginal suitable habitat is present; however, the study area elevation is above the known range for the species. |
| <i>Coleonyx variegatus abbotti</i><br>San Diego banded gecko                                             | None/None/<br>Group 1                             | Cismontane chaparral, coastal sage scrub, desert scrub; granite outcrops                                                                                | Yes, suitable habitat is present within the study area.                                                                    |
| <i>Crotalus ruber ruber</i><br>Northern red-diamond rattlesnake                                          | None/CSC/<br>Group 2                              | Variety of shrub habitats where there is heavy brush, large rocks, or boulders                                                                          | Yes, suitable habitat is present within the study area.                                                                    |
| <i>Diadophis punctatus similis</i><br>San Diego ringneck snake                                           | None/None/<br>Group 2                             | Open, rocky areas in moist habitats near intermittent streams: marsh, riparian woodland, sage scrub                                                     | Very low—lack of suitable habitat within the study area. No records of the species in the area.                            |
| <i>Actinemys marmorata</i><br>Western pond turtle                                                        | None/CSC/<br>Group 1, MSCP                        | Slow-moving permanent or intermittent streams, ponds, small lakes, reservoirs with emergent basking sites; adjacent uplands used during winter          | Very low—lack of suitable habitat within the study area. No records of the species in the area.                            |
| <i>Eumeces skiltonianus interparietalis</i><br>Coronado skink                                            | None/CSC/<br>Group 2                              | Grassland, riparian and oak woodland; found in litter, rotting logs, under flat stones                                                                  | Very low—lack of suitable habitat within the study area. No records of the species in the area.                            |
| <i>Lampropeltis zonata (pulchra)</i> (San Diego population)<br>California (San Diego) mountain kingsnake | None/CSC/<br>Group 2                              | Valley-foothill hardwood, hardwood-conifer, chaparral, coniferous forest, wet meadow                                                                    | Very low—lack of suitable habitat within the study area. No records of the species in the area.                            |
| <i>Phrynosoma coronatum</i> (blainvillei population)<br>Coast (San Diego) horned lizard                  | None/CSC/<br>Group 2, MSCP                        | Coastal sage scrub, annual grassland, chaparral, oak and riparian woodland, coniferous forest, sandy areas, washes, flood plains                        | Yes, suitable habitat is present within the study area.                                                                    |

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**Table 3**  
**Special-Status Animal Species and Potential to Occur Within the Study Area**

| Scientific Name/<br>Common Name                                                   | Status<br>(Federal/State/<br>County) <sup>1</sup> | Habitat Preferences/Requirements                                                                                                                                                                                                     | Potential to Occur on Site?                                                                                                                                      |
|-----------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Salvadora hexalepis virgulata</i><br>Coast patch-nosed snake                   | None/CSC/<br>Group 2                              | Chaparral, washes, sandy flats, rocky areas                                                                                                                                                                                          | Yes, suitable habitat is present within the study area.                                                                                                          |
| <i>Sceloporus graciosus vanderburgianus</i><br>Southern sagebrush lizard          | None/None/<br>Group 2                             | Higher elevation, montane chaparral, hardwood and conifer forest, juniper, coastal sage scrub                                                                                                                                        | Yes, suitable habitat is present within the study area.                                                                                                          |
| <i>Thamnophis hammondi</i><br>Two-striped garter snake                            | None/CSC/<br>Group 1                              | Marshes, meadows, sloughs, ponds, slow-moving water courses                                                                                                                                                                          | Very low. Lack of suitable habitat within the study area. No records of the species in the area.                                                                 |
| <i>Thamnophis sirtalis</i> ssp.<br>South coast garter snake                       | None/CSC/<br>Group 2                              | Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools                                                                                                                                                          | Very low—lack of suitable habitat within the study area. No records of the species in the area.                                                                  |
| <i>Birds</i>                                                                      |                                                   |                                                                                                                                                                                                                                      |                                                                                                                                                                  |
| <i>Accipiter cooperii</i><br>Cooper's hawk (nesting)                              | None/WL,<br>CSC/Group 1,<br>MSCP                  | Riparian and oak woodlands, montane canyons                                                                                                                                                                                          | Low—lack of suitable nesting habitat within the study area. However, there are records of the species in the area.                                               |
| <i>Agelaius tricolor</i><br>Tricolored blackbird                                  | BCC, USBC/CSC/<br>Group 1, MSCP                   | Nests near fresh water, emergent wetland with cattails or tules; forages in grasslands, woodland, agriculture                                                                                                                        | Unlikely—lack of suitable nesting habitat within the study area. However, foraging habitat is present on site, and there are records of the species in the area. |
| <i>Aimophila ruficeps canescens</i><br>Southern California rufous-crowned sparrow | None/WL/<br>Group 1                               | Grass-covered hillsides, coastal sage scrub, chaparral with boulders and outcrops                                                                                                                                                    | Low to Moderate. However, lack of suitable habitat within the study area, and no records of the species in the area.                                             |
| <i>Anas strepera</i><br>Gadwall                                                   | None/None/<br>Group 2                             | Interior valleys, wetlands, ponds, and streams; feeds and rests in freshwater lacustrine and emergent habitats, and to a lesser extent, estuarine and saline emergent habitats, and nests in nearby herbaceous and cropland habitats | Very low—lack of suitable habitat within the study area, and no records of the species in the area.                                                              |
| <i>Amphispiza belli belli</i><br>Bell's sage sparrow                              | BCC/WL/<br>Group 1                                | Coastal sage scrub and dry chaparral along coastal lowlands and inland valleys                                                                                                                                                       | Moderate, however, marginal suitable habitat within the study area, and no records of the species in the area.                                                   |
| <i>Ammodramus savannarum</i><br>Grasshopper sparrow                               | None/CSC/<br>Group 1                              | Native and non-native grasslands and pastures                                                                                                                                                                                        | Very low—lack of suitable habitat within the study area. No records of the species in the area.                                                                  |

**Table 3**  
**Special-Status Animal Species and Potential to Occur Within the Study Area**

| Scientific Name/<br>Common Name                                     | Status<br>(Federal/State/<br>County) <sup>1</sup> | Habitat Preferences/Requirements                                                                                                                         | Potential to Occur on Site?                                                                                                                                                                                  |
|---------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Aquila chrysaetos</i><br>Golden eagle (nesting<br>and wintering) | BCC/P, WL/Group<br>1, MSCP                        | Open country, especially hilly and<br>mountainous regions; grassland, coastal<br>sage scrub, chaparral, oak savannas,<br>open coniferous forest          | Yes—suitable foraging habitat is<br>present within the study area;<br>however, very low potential for<br>nesting (recorded nesting sites are<br>located in the region, but off site).                        |
| <i>Ardea herodias</i><br>Great blue heron                           | None/Group 2,<br>CDF                              | Variety of habitats, but primarily<br>wetlands; lakes, rivers, marshes,<br>mudflats, estuaries, saltmarsh, riparian<br>habitats                          | Very low—lack of suitable habitat<br>within the study area. No records<br>of the species in the area.                                                                                                        |
| <i>Asio flammeus</i><br>Short-eared owl                             | USBC/CSC/<br>Group 2                              | Grassland, prairies, dunes, meadows,<br>irrigated lands, saline and freshwater<br>emergent wetlands                                                      | Very low—lack of suitable habitat<br>within the study area. No records<br>of the species in the area.                                                                                                        |
| <i>Asio otus</i><br>Long-eared owl                                  | None/CSC/<br>Group 1                              | Riparian, live oak thickets, other dense<br>stands of trees, edges of coniferous<br>forest                                                               | Very low—lack of suitable habitat<br>within the study area. No records<br>of the species in the area.                                                                                                        |
| <i>Athene cunicularia</i><br>Burrowing owl                          | BCC/CSC/<br>Group 1, MSCP                         | Grassland, lowland scrub, agriculture,<br>coastal dunes and other artificial open<br>areas                                                               | Yes—may nest and/or winter<br>within the study area (no records<br>for this species in the study areas;<br>however, it was observed on the<br>nearby ECO site).                                              |
| <i>Aythya americana</i><br>Redhead                                  | None/CSC/<br>Group 2                              | Lacustrine waters, foothills and coastal<br>lowlands, and along the coast and Colorado<br>river; nests in fresh emergent wetland<br>bordering open water | Very low—lack of suitable habitat<br>in the study area.                                                                                                                                                      |
| <i>Branta Canadensis</i><br>Canada goose                            | None/None/<br>Group 2, MSCP                       | Lakes, fresh emergent wetlands, moist<br>grasslands, croplands, pastures, and<br>meadows                                                                 | Very low—lack of suitable habitat<br>in the study area.                                                                                                                                                      |
| <i>Buteo lineatus</i><br>Red-shouldered hawk                        | None/None/<br>Group 1                             | Riparian and woodland habitats,<br>eucalyptus                                                                                                            | Very low—lack of suitable habitat<br>in the study area.                                                                                                                                                      |
| <i>Buteo regalis</i><br>Ferruginous hawk                            | BCC/WL/<br>Group 1, MSCP                          | Open, dry country, grasslands, open<br>fields, agriculture                                                                                               | Unlikely—no suitable habitat present<br>within the study area (may use the<br>study area to forage during the<br>winter, however, study area is<br>outside the recorded breeding range<br>for this species). |
| <i>Buteo swainsoni</i><br>Swainson's hawk                           | BCC, USBC/ST/<br>Group 1, MSCP                    | Open grassland, shrublands, croplands                                                                                                                    | Unlikely—no suitable habitat present<br>within the study area (may use the<br>study area to forage during the<br>winter, however, study area is<br>outside the recorded breeding range<br>for this species). |
| <i>Butorides virescens</i><br>Green heron                           | None/None/<br>Group 2                             | Lakes, marshes, streams                                                                                                                                  | Very low—lack of suitable habitat<br>within the study area. No records<br>of the species in the area.                                                                                                        |

**Table 3**  
**Special-Status Animal Species and Potential to Occur Within the Study Area**

| Scientific Name/<br>Common Name                             | Status<br>(Federal/State/<br>County) <sup>1</sup> | Habitat Preferences/Requirements                                                                                                                    | Potential to Occur on Site?                                                                                                                                                    |
|-------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Cathartes aura</i><br>Turkey vulture                     | SBNF/None/<br>Group 1                             | Rangeland, agriculture, grassland; uses cliffs and large trees for roosting, nesting, and resting                                                   | Yes—suitable foraging habitat is present the study area; however, very low potential for nesting (species has been observed in the region, but off site).                      |
| <i>Chlidonias niger</i><br>Black tern                       | None/CSC/<br>Group 2, MSCP                        | Freshwater lakes, marshes, ponds, coastal lagoons                                                                                                   | Very low—no nesting habitat and lack of suitable habitat within the study area.                                                                                                |
| <i>Circus cyaneus</i><br>Northern harrier                   | None/CSC/<br>Group 1, MSCP                        | Open wetlands (nesting), pasture, old fields, dry uplands, grasslands, rangelands, coastal sage scrub                                               | Somewhat likely to occur. No suitable nesting habitat on site, however, marginal suitable foraging habitat is present within the study area.                                   |
| <i>Dendroica petechia brewsteri</i><br>Yellow warbler       | None/CSC/<br>Group 2                              | Nests in lowland and foothill riparian woodlands dominated by cottonwoods, alders and willows; winters in a variety of habitats                     | Low—marginal suitable habitat is present within the study area.                                                                                                                |
| <i>Elanus leucurus (caeruleus)</i><br>White-tailed kite     | None/P/Group 1                                    | Open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian                                                              | Somewhat likely to forage within the study area; however, no suitable nesting habitat on site.                                                                                 |
| <i>Eremophila alpestris actia</i><br>California horned lark | None/WL/<br>Group 2                               | Open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, fallow grain fields                                       | Moderate potential to forage within the study area; however, no suitable nesting habitat on site (observed in the past on the Tule Project and ECO Project sites).             |
| <i>Falco columbarius</i><br>Merlin                          | None/CSC/<br>Group 2                              | Nests in open country, open coniferous forest, prairie; winters in open woodlands, grasslands, cultivated fields, marshes, estuaries and sea coasts | Yes, suitable foraging habitat is present within the study area. However, the study areas are outside the breeding range for this species (i.e., does not nest in California). |
| <i>Falco mexicanus</i><br>Prairie falcon                    | BCC/CSC/<br>Group 1                               | Grassland, savannas, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs                                                 | Yes, suitable foraging habitat is present within the study area. However, there is no suitable nesting habitat present in the study area. Known to occur in the area.          |
| <i>Falco peregrinus anatum</i><br>American peregrine falcon | BCC, (FD)/<br>SE, P/Group 1,<br>MSCP              | Nests on cliffs, buildings, bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present                      | Unlikely—no suitable foraging habitat within the study area. No suitable nesting cliffs present in the study area.                                                             |
| <i>Icteria virens</i><br>Yellow-breasted chat               | None/CSC/<br>Group 1                              | Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush                                                    | Very low—lack of suitable habitat within the study area. No records of the species in the area.                                                                                |

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**Table 3**  
**Special-Status Animal Species and Potential to Occur Within the Study Area**

| Scientific Name/<br>Common Name                                                   | Status<br>(Federal/State/<br>County) <sup>1</sup> | Habitat Preferences/Requirements                                                                                                                                     | Potential to Occur on Site?                                                                                      |
|-----------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <i>Ixobrychus exilis</i><br>Least bittern                                         | None/CSC/<br>Group 2                              | Dense emergent wetland vegetation, sometimes interspersed with woody vegetation and open water                                                                       | Very low—lack of suitable habitat within the study area. No records of the species in the area.                  |
| <i>Lanius ludovicianus</i><br>Loggerhead shrike                                   | BCC/CSC/<br>Group 1                               | Open ground including grassland, coastal sage scrub, broken chaparral, agriculture, riparian, open woodland                                                          | Yes, observed on site. Suitable habitat is present within the study area.                                        |
| <i>Melanerpes lewis</i><br>Lewis' woodpecker                                      | BCC/None/<br>Group 1                              | Open oak savannahs, broken deciduous, and coniferous habitats                                                                                                        | Very low—lack of suitable habitat within the study area. No records of the species in the area.                  |
| <i>Oreotyx pictus</i><br><i>Eremophila</i><br>Mountain quail                      | None/None/<br>Group 2                             | Dense montane chaparral and brushy areas within coniferous forest, pinyon-juniper-yucca associations; uses shrubs, brush stands, and trees on steep slopes for cover | Moderate—suitable habitat is present within all of the study areas, but not known from the area.                 |
| <i>Piranga rubra</i> (nesting)<br>Summer tanager                                  | None/CSC/<br>Group 2                              | Nests in riparian woodland; winter habitats include parks and residential areas                                                                                      | Very low—lack of suitable habitat within the study area and out of the recorded breeding range for this species. |
| <i>Progne subis</i> (nesting)<br>Purple martin                                    | None/CSC/<br>Group 1                              | Nests in tall sycamores, pines, oak woodlands, coniferous forest; forages over riparian, forest, and woodland                                                        | Low—no nesting habitat. Marginal foraging habitat present within the study area.                                 |
| <i>Siala mexicana</i><br>Western bluebird                                         | None/None/<br>Group 2, MSCP                       | Open forests of deciduous, coniferous, or mixed trees, savanna, edges of riparian woodland                                                                           | Very low—lack of suitable habitat within the study area. No records of the species in the area.                  |
| <i>Tyto alba</i><br>Common barn-owl                                               | None/None/<br>Group 2                             | Open habitats including grassland, chaparral, riparian, and other wetlands                                                                                           | Low—marginal habitat present within the study area.                                                              |
| <i>Vireo vicinior</i><br>Gray vireo                                               | BCC, BLM,<br>USBC/CSC/<br>Group 1                 | Summer resident in arid pinyon-juniper, juniper, and chamise-redshank chaparral habitats                                                                             | Yes, suitable nesting habitat is present within all of the study area and may nest on site.                      |
| <i>Mammals</i>                                                                    |                                                   |                                                                                                                                                                      |                                                                                                                  |
| <i>Antrozous pallidus</i><br>Pallid bat                                           | None/CSC/<br>Group 2                              | Rocky outcrops, cliffs, and crevices with access to open habitats for foraging                                                                                       | Yes, suitable foraging habitat is present within the study area. No suitable roosting habitat on site.           |
| <i>Bassariscus astulus</i><br>Ringtail                                            | None/P/Group 2                                    | Mixed forests and shrublands near rocky areas or riparian habitats                                                                                                   | Low—no suitable habitat present within the study area.                                                           |
| <i>Chaetodipus californicus femoralis</i><br>Dulzura (California)<br>pocket mouse | None/CSC/<br>Group 2                              | Coastal sage scrub, chaparral, riparian-scrub ecotone; more mesic areas                                                                                              | Yes, suitable habitat is present within the study area.                                                          |
| <i>Chaetodipus fallax fallax</i><br>Northwestern San Diego<br>pocket mouse        | None/CSC/<br>Group 2                              | Coastal sage scrub, grassland, sage scrub-grassland ecotones, sparse chaparral; rocky substrates, loams and sandy loams                                              | Yes, suitable habitat is present within the study area.                                                          |

**Table 3**  
**Special-Status Animal Species and Potential to Occur Within the Study Area**

| Scientific Name/<br>Common Name                                          | Status<br>(Federal/State/<br>County) <sup>1</sup> | Habitat Preferences/Requirements                                                                                                                                            | Potential to Occur on Site?                                                                                                                 |
|--------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Chaetodipus fallax pallidus</i><br>Pallid San Diego pocket mouse      | None/CSC/<br>Group 2                              | Coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland              | Yes, suitable habitat is present within the study area and species is known to occur in this region.                                        |
| <i>Choeronycteris mexicana</i><br>Mexican long-tongued bat               | None/CSC/<br>Group 2                              | Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings.                                      | Yes, suitable foraging habitat is present within the study areas. Potential roosting areas are within the mountains east of the study area. |
| <i>Coryorhinus townsendii</i><br>Townsend's big-eared bat                | None/CSC/<br>Group 2, MSCP                        | Mesic habitats, gleans from brush or trees or feeds along habitat edges                                                                                                     | Yes, suitable foraging habitat is present within the study areas. Potential roosting areas are within the mountains east of the study area. |
| <i>Euderma maculatum</i><br>Spotted bat                                  | None/CSC/<br>Group 2                              | Rock crevices, riparian forest, woodland and scrub, ponds, lakes, grasslands                                                                                                | Yes, suitable foraging habitat is present within the study areas. Potential roosting areas are within the mountains east of the study area. |
| <i>Eumops perotis californicus</i><br>Greater western mastiff bat        | None/CSC/<br>Group 2, MSCP                        | Roosts in small colonies in cracks and small holes, seeming to prefer man-made structures                                                                                   | Unlikely—marginally suitable foraging habitat present within the study area. No suitable roosting habitat on site.                          |
| <i>Lasiurus blossevillei</i><br>Western red bat                          | None/None/<br>Group 2                             | Prefers edges with trees for roosting and open areas for foraging. Roosts in woodlands and forests. Forages over grasslands, shrublands, woodlands, forests, and croplands. | Unlikely—marginally suitable foraging and roosting habitat present within the study area.                                                   |
| <i>Lepus californicus bennettii</i><br>San Diego black-tailed jackrabbit | None/CSC/<br>Group 2                              | Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands                                                                    | Yes, observed on site. Suitable habitat is present within the study area.                                                                   |
| <i>Macrotus californicus</i><br>California leaf-nosed bat                | BLM:S/DFG:SSC/<br>USFS:S/CSC/<br>Group 2          | Desert riparian, desert wash, desert scrub, desert succulent shrub, alkali desert scrub, and palm oasis                                                                     | Yes, suitable foraging habitat is present within the study areas.                                                                           |
| <i>Myotis ciliolabrum</i><br>Small-footed myotis                         | None/None/<br>Group 2                             | Caves, old mines, abandoned buildings                                                                                                                                       | Low—no suitable habitat present within the study area.                                                                                      |
| <i>Myotis evotis</i><br>Long-eared myotis                                | None/None/<br>Group 2                             | Roosts in buildings, crevices, under bark, and snags. Caves used as night roosts. Feeds along habitat edges, in open habitats, and over water.                              | Yes, suitable foraging habitat is present within the study area. Potential roosting areas are within the mountains east of the study area.  |

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**Table 3**  
**Special-Status Animal Species and Potential to Occur Within the Study Area**

| Scientific Name/<br>Common Name                                         | Status<br>(Federal/State/<br>County) <sup>1</sup> | Habitat Preferences/Requirements                                                                                                              | Potential to Occur on Site?                                                                                                                |
|-------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Myotis thysanodes</i><br>Fringed myotis                              | None/None/<br>Group 2                             | Maternity colonies in caves, mines, buildings, or crevices. Forages over open habitats, early successional stages, streams, lakes, and ponds. | Yes, suitable foraging habitat is present within the study area. Potential roosting areas are within the mountains east of the study area. |
| <i>Myotis volans</i><br>Long-legged myotis                              | None/None/<br>Group 2                             | Feeds over open water and over open habitats, using denser woodlands and forests for cover and reproduction                                   | Unlikely, suitable foraging habitat is present within the study area. However, limited roosting sites in the area.                         |
| <i>Myotis yumanensis</i><br>Yuma myotis                                 | None/None/<br>Group 2                             | Closely tied to open water which is used for foraging; open forests and woodlands are optimal habitat                                         | Unlikely—suitable foraging habitat is present within the study area. However, there is no known open water in the area.                    |
| <i>Neotoma lepida intermedia</i><br>San Diego desert woodrat            | None/CSC/<br>Group 2                              | Coastal sage scrub, chaparral, pinyon-juniper woodland with rock outcrops, cactus thickets, dense undergrowth                                 | Yes, middens observed within the study area.                                                                                               |
| <i>Nyctinomops femorosaccus</i><br>Pocketed free-tailed bat             | None/CSC/<br>Group 2                              | Rocky desert areas with high cliffs or rock outcrops                                                                                          | Yes, suitable foraging habitat is present within the study area. Potential roosting areas are within the mountains east of the study area. |
| <i>Nyctinomops macrotis</i><br>Pocketed free-tailed bat                 | None/CSC/<br>Group 2                              | Rugged, rocky canyons                                                                                                                         | Unlikely—suitable foraging habitat is present within the study area. However, there are no known rugged, rocky canyons in the area.        |
| <i>Odocoileus hemionus</i><br>Mule deer                                 | None/None/<br>Group 2, MSCP                       | Coastal sage scrub, chaparral, riparian, woodlands, forest; often browses in open areas adjacent to cover                                     | Yes, suitable habitat is present within the study area.                                                                                    |
| <i>Onychomys torridus ramona</i><br>Southern grasshopper mouse          | None/CSC/<br>Group 2                              | Grassland, sparse coastal sage scrub                                                                                                          | Low—no suitable habitat present within the study area.                                                                                     |
| <i>Perognathus longimembris internationalis</i><br>Jacumba pocket mouse | None/CSC/<br>Group 2                              | Desert riparian, desert scrub, desert wash, coastal scrub, and sagebrush.                                                                     | Yes, suitable habitat is present within the study area.                                                                                    |
| <i>Puma [=Felis] concolor</i><br>Mountain lion                          | None/None/<br>Group 2, MSCP                       | Coastal sage scrub, chaparral, riparian, woodlands, forest; rests in rocky areas, and on cliffs and ledges that provide cover                 | Yes, suitable habitat is present within the study area.                                                                                    |

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**Table 3**  
**Special-Status Animal Species and Potential to Occur Within the Study Area**

| Scientific Name/<br>Common Name                                   | Status<br>(Federal/State/<br>County) <sup>1</sup> | Habitat Preferences/Requirements                                                                                                                   | Potential to Occur on Site?                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Taxidea taxus</i><br>American badger                           | None/CSC/<br>Group 2, MSCP                        | Dry, open treeless areas, grasslands,<br>coastal sage scrub                                                                                        | Yes, suitable habitat is present<br>within the study area.                                                                                                                                                                                                       |
| <i>Invertebrates</i>                                              |                                                   |                                                                                                                                                    |                                                                                                                                                                                                                                                                  |
| <i>Branchinecta sandiegonensis</i><br>San Diego fairy shrimp      | FE/None/Group 1                                   | Small, shallow vernal pools, occasionally<br>ditches and road ruts                                                                                 | Very low potential to occur due to<br>marginal road ruts within the<br>study area.                                                                                                                                                                               |
| <i>Danaus plexippus</i><br>Monarch butterfly<br>(wintering sites) | None/None/<br>Group 2                             | Overwinters in eucalyptus groves                                                                                                                   | No—no eucalyptus trees occur on<br>site. Large winter colonies are not<br>recorded from the region.                                                                                                                                                              |
| <i>Euphydryas editha quino</i><br>Quino checkerspot<br>butterfly  | FE/None/Group 1                                   | Sparsely vegetated hilltops, ridgelines,<br>occasionally rocky outcrops; host plant<br><i>Plantago erecta</i> and nectar plants must<br>be present | Yes, suitable habitat is present<br>within the study area, but<br>dependent on presence of host<br>plants. Also, observed during<br>surveys for the Tule Wind project.<br>However, focused surveys in<br>2013 were negative and no host<br>plants were observed. |
| <i>Lycaena hermes</i><br>Hermes copper butterfly                  | None/None/<br>Group 1                             | Coastal sage scrub, southern mixed<br>chaparral supporting at least 5% cover of<br>host plant <i>Rhamnus crocea</i>                                | Low potential based on location<br>and lack of host plants.                                                                                                                                                                                                      |
| <i>Papilio multicaldata</i><br>Two-tailed swallowtail             | None/None/<br>Group 1                             | Foothill slopes and canyons, moist<br>valleys, streamsides, woodlands, parks,<br>roadsides, suburbs, and cities                                    | Unlikely—marginally suitable<br>habitat is present within the study<br>area.                                                                                                                                                                                     |
| <i>Streptocephalus woottoni</i><br>Riverside fairy shrimp         | FE/None/Group 1                                   | Deep, long-lived vernal pools, vernal<br>pool-like seasonal ponds, stock ponds;<br>warm water pools that have low to<br>moderate dissolved solids  | Low potential due to marginal<br>road ruts.                                                                                                                                                                                                                      |

**1 Designations**

**Federal Designations:**

BCC USFWS: Birds of Conservation Concern  
 FC Candidate for federal listing as Threatened or Endangered  
 (FD) Federally delisted; monitored for 5 years  
 BLM:S Bureau of Land Management – Sensitive  
 FE Federally listed Endangered  
 FT Federally listed as Threatened  
 PT Proposed Threatened

**State Designations:**

CSC California Special Concern Species  
 WL Watch List  
 CDF:S California Department of Forestry, Sensitive Species  
 P CDFG Protected  
 FP CDFG Fully Protected Species  
 SE State-listed as Endangered  
 ST State-listed as Threatened  
 DFG:SSC CDFG Species of Special Concern

**County Designations:**

Group 1: Animals of high sensitivity (listed or specific natural history requirements)  
 Group 2: Animals declining, but not in immediate threat of extinction or extirpation

## **WILDLIFE MOVEMENT**

Wildlife currently is able to traverse the site in an unencumbered manner until they arrive at the International Border Fence south of the site. The project site is located near two breaks in the International Border Fence. Two are located approximately 1,400 feet to the west and the other is located approximately 3,000 feet to the east (Figure 6). These breaks are due to the terrain and associated difficulties in building a fence in those areas. This topography does not pose difficulties for wildlife use however. Mule deer, coyotes, mountain lion, bobcat, and other species are readily able to scale slopes of this angle. As shown on Figure 3, the project has been designed to be built adjacent to the border fence in the southeastern corner of the site. This allows for a large contiguous block of habitat to be left in open space for wildlife to use and move through. The BOS is configured to compliment the adjacent BLM lands to the north and east. The project has been designed to be built in a single contiguous block that would allow for the provision of a large single contiguous block of open space habitat for common and special-status species to utilize, adjacent to existing public open space. Finally, the configuration of the open space allows for continued utilization of the breaks in the border fence by wildlife. It is expected that the configuration of the open space will allow for viable preservation of species and movement in the vicinity and region.

## **CONCLUSION**

As seen in Table 4, overall, the project has an excess of 44.5 acres of natural communities within the planned open space. While specific Sonoran mixed woody scrub and upper Sonoran subshrub scrub mitigation is in deficit (-4.4 acres), the excess 44.5 acres of natural communities consisting of Semi-desert Chaparral (36 acres) and Peninsular Juniper Woodland and Scrub (8.5 acres) would provide equal if not better habitat value and function. Semi-desert chaparral supports the same suite of wildlife species and is very similar in form and function to the scrub communities. Based upon vegetation mapping, elevation ranges, soils, and location of the BOS, the BOS contains suitable habitat to compensate for the loss of special-status plant and wildlife species that will be, or could potentially be impacted by the project. Further, the location and configuration would mitigate potential impacts to wildlife movement.

The location of the open space block provides direct and adjacent connection to public open space and allows for unencumbered movement of wildlife across the site and through adjacent open space to two of the few breaks in the International Border Fence. This allows for north/south and east/west movement across the site and vicinity. Utilization of topographically, vegetatively, and governmentally diverse areas is a long-term benefit to wildlife and natural resources in the area. The BOS in surrounding areas contain many species which would be supported by the proposed preservation of these lands.

**Table 4**  
**Vegetation Communities, Impact Acreage and Mitigation Credit**

| Habitat Types/<br>Vegetation Communities      | Code1 | Impact<br>Acreage | Mitigation<br>Ratio | On-site BOS<br>Mitigation Credit | Mitigation<br>Outstanding |
|-----------------------------------------------|-------|-------------------|---------------------|----------------------------------|---------------------------|
| <i>Upland Scrub and Chaparral</i>             |       |                   |                     |                                  |                           |
| Sonoran Mixed Woody Scrub*                    | 33210 | 2.8               | 1:1                 | 0.4                              | -2.4                      |
| Semi-Desert Chaparral*                        | 37400 | 71.7              | 1:1                 | 107.7                            | +36                       |
| Upper Sonoran Subshrub Scrub*                 | 39000 | 2.8               | 1:1                 | 0.8                              | -2.0                      |
| <i>Upland Woodland and Savannah</i>           |       |                   |                     |                                  |                           |
| Peninsular Juniper Woodland and Scrub*        | 72320 | 23.7              | 3:1                 | 79.6                             | +8.5                      |
| <i>Non-Native Communities and Land Covers</i> |       |                   |                     |                                  |                           |
| Disturbed Land                                | 11300 | 7.4               | 0:0                 | 0                                | N/A                       |
| RWQCB/CDFG/USACOE Waters                      |       | 0.1               | 3:1                 | 0.3                              | TBD                       |

**Note:** The above acreages do not include the gen-tie alignment.

<sup>1</sup> Holland (1986) as modified by Oberbauer et al. (2008)

\* Considered special-status by the County (2010b).

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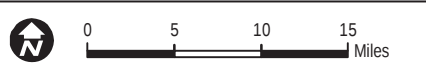
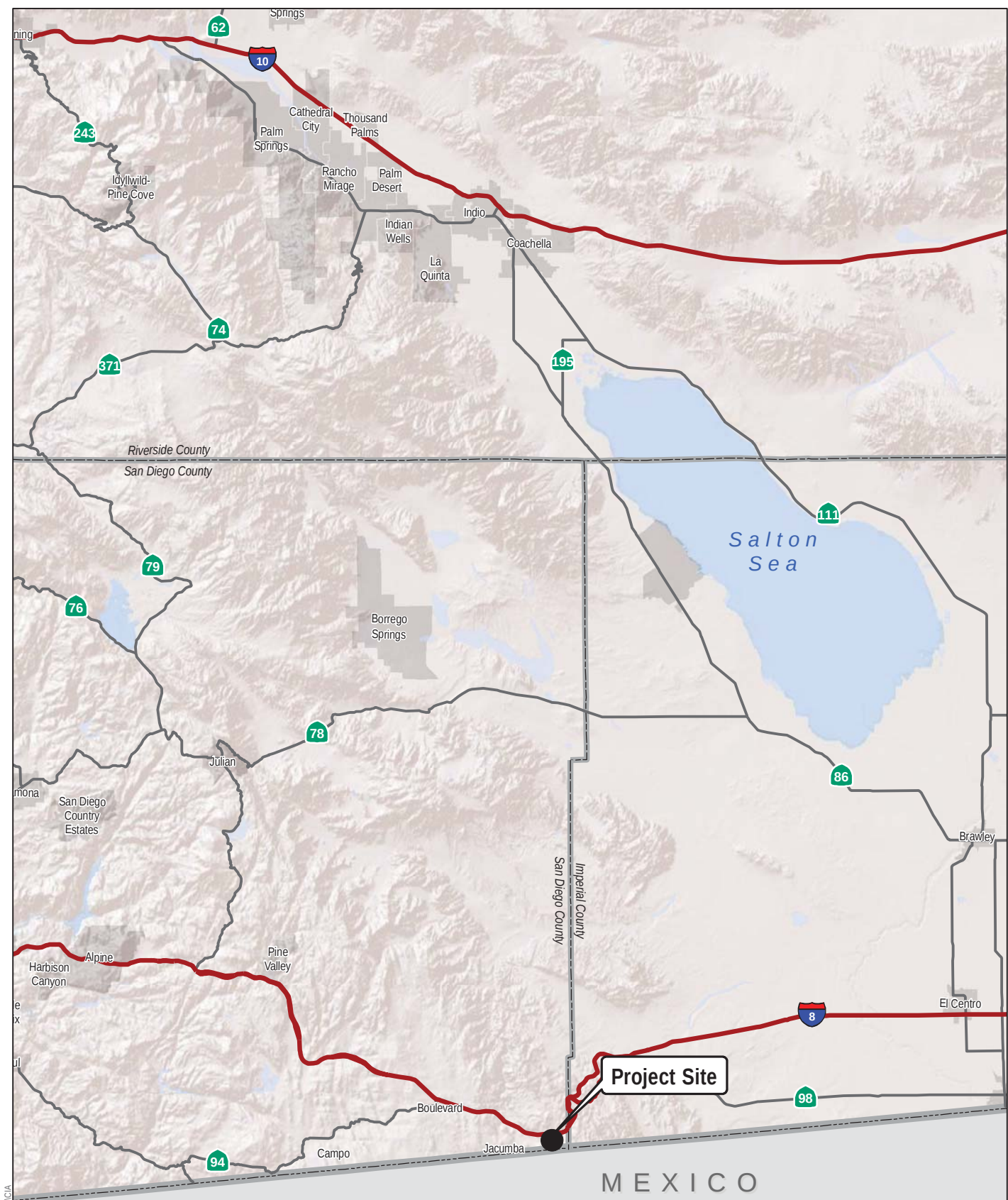
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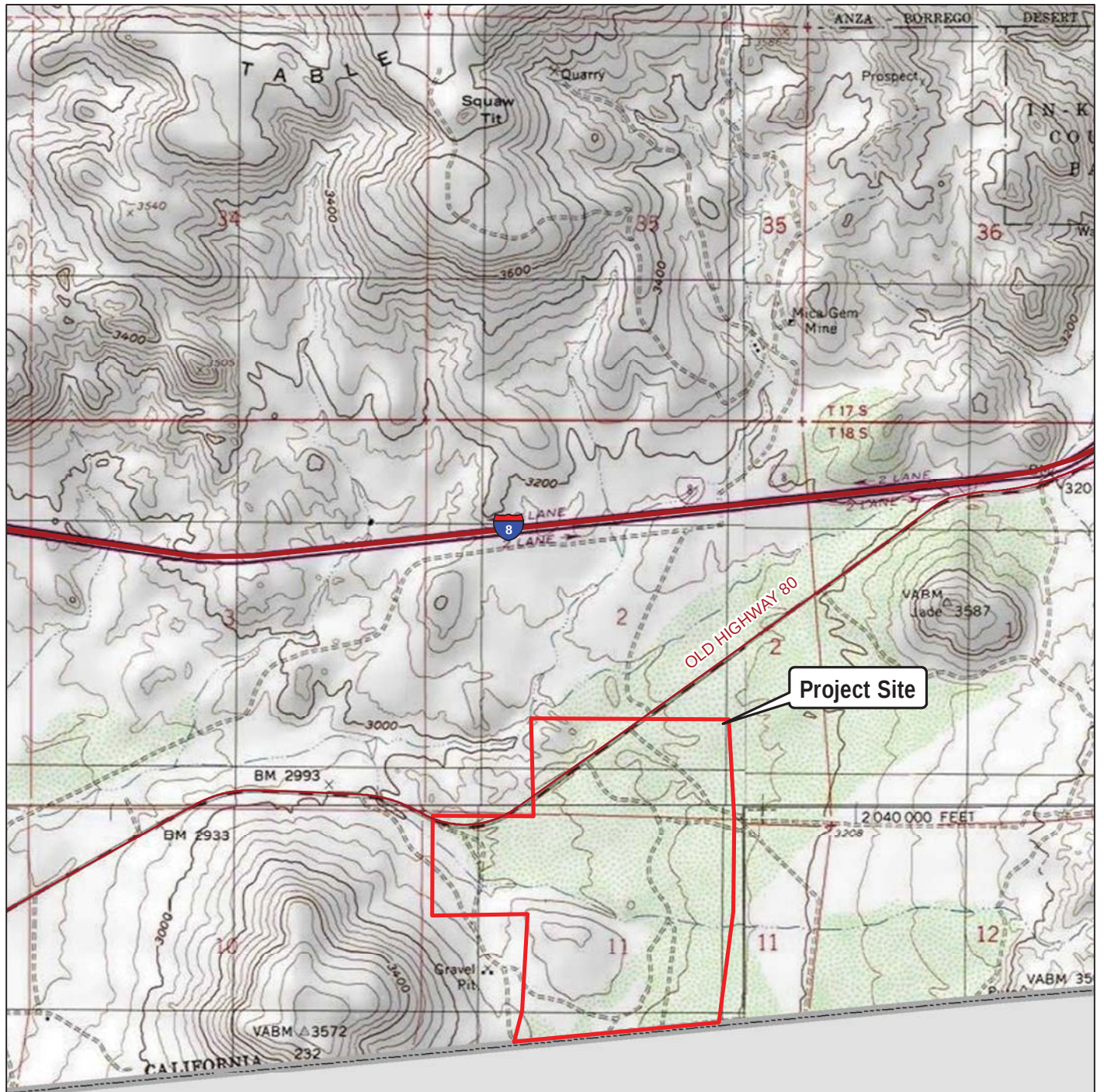


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**FIGURE 1**  
**Regional Map**

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**DUDEK**

7524

SOURCE: Bing 2012

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**FIGURE 2**  
**Vicinity Map**