# Granger Solar

**(Case # PDS2015-MUP-15-019; Environmental Log # PDS2015-ER-15-02-006)**

# Biological Resources Letter Report

Northeast Corner of Mesa Crest Road and Avenida Annalie, Valley Center, California
Assessor's Parcel Number 129-162-07
Pala, California USGS 7.5-minute Topographic Quadrangle
Section 35, Township 10 South, Range 2 West San Bernardino Base and Meridian

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**Revised October 2015**

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# Biological Resources Letter Report

# Errata Sheet

**January 2016**

# EXECUTIVE SUMMARY

The Project would result in the loss of the following habitats: 5.91 acres of southern mixed chaparral, to be mitigated at a ratio of 0.5:1 (2.96 acres); 10.25 acres of coastal sage scrub, to be mitigated at a ratio of 2:1 (20.50 acres); 0.05 acre of coast live oak woodland disturbed, to be mitigated at a ratio of 3:1 (0.15 acre); 0.87 acre of flat-topped buckwheat scrub, to be mitigated at a ratio of 2:1 (1.74 acres); 8.38 acres of non-native grassland, to be mitigated at a ratio of 0.5:1 (4.19 acres); and 0.56 acre of extensive agriculture (fallow), to be mitigated at a ratio of 0.5:1 (0.28 acre).

# CHAPTER 1. INTRODUCTION

## 1.4 Environmental Setting

### 1.4.2 Habitat Types/Vegetation Communities

### Diegan Coastal Sage Scrub (13.96 Acres)

DCSS within the survey area is dominated by coastal sagebrush, California buckwheat (*Eriogonum fasciculatum*), sawtooth goldenbush, laurel sumac, and lemonadeberry, in addition to deerweed (*Acmispon glaber*), Nuttall snapdragon, broom baccharis, field sun cup, common tarplant (*Centromadia pungens* sspp. *laevis*), California aster, fascicled tarweed (*Deinandra fasciculata*), thread-leaf woolly-star, golden yarrow, yuccas, telegraph weed (*Heterotheca grandiflora*), phacelias, California everlasting, interior live oak, sugar bush, black sage, and California bee plant. Nonnative species found in minimal numbers in certain areas of this vegetation community include wild oat (*Avena barbata*), black mustard (*Brassica nigra*), bromes (*Bromus* spp.), yellow star-thistle (*Centaurea solstitialis*), storksbills (*Erodium* spp.), fescues/rye grass (*Festuca* spp.), and short-pod mustard (*Hirschfeldia incana*), in addition to iceplant (*Carpobrotus* spp.), fennel (*Foeniculariurn vulgare*), barleys (*Hordeum* spp.), and rabbitfoot (*Polypogon monspeliensis*). Habitat value is high in the north, east and south portions of the property (Figure 6) due

to minimal disturbances in these areas. With the exception of an existing wooden structure, a dirt road extending easterly from this structure, and dirt roads along the north, east and south property boundaries, the DCSS habitat in these areas is undisturbed and comprised of the primary constituent plant elements listed above.

## Coast Live Oak Woodland (1.15 Acres)

It should be noted that, in addition to the CLOW habitat described above, there are approximately 150 individual coast live oaks in the survey area, with the majority of these trees occurring within non-native grassland habitat and in the fallow agricultural area in the west and central portions of the site (Figure 6). There are a few clumpings of trees scattered throughout this area, but the overall oak canopy cover is less than 10% and these trees are co-dominant with eucalyptus, ficus, laurel sumac, tree tobacco (*Nicotiana glauca*), and Mexican fan palm (*Washingtonia robusta*). The understory vegetation beneath the oaks and the areas between the individual oaks are dominated by non-native grasses and other invasive plants, such as wild oat, black mustard, bromes, yellow star thistle and other thistles (*Carduus pycnocephalus, Silybum marianum, Sonchus asper* ssp. *asper*), tocalote (*Centaurea melitensis*), horseweed (*Conyza canadensis*), storksbills, fescues/rye grass, short-pod mustard, barleys, California plantain (*Plantago erecta*), rabbitfoot, and wild radish (*Raphanus sativus*), and also include some dead orchard trees (see Photos 1 and 13-19 in Appendix B).

These oak trees are the result of a previous commercial orchard/nursery that operated on the site from the 1980s to 2013 (as documented in historic aerial photographs of the site). As part of the orchard/nursery operation, the oaks were planted inside 24" boxes in the ground and when ready for commercial sale, the boxes and trees together were removed for transport. The trees that are currently growing onsite were the result of being abandoned when the orchard/nursery ceased operating on the site and are in various degrees of health. Because these trees were commercially grown and not naturally occurring, and because there are no native understory elements beneath these oaks, they are not considered CLOW habitat. In addition, these trees do not meet the definition of CLOW habitat under the California Oak Woodlands Conservation Act (Article 3.5, Sections 1360-1372 of the California Fish and Game Code) because the overall oak canopy cover of all the commercially-grown individual oaks and oak stands combined presently comprises less than 10% of the total area of non-native grassland and fallow agricultural habitats within which these trees occur. Furthermore, our interpretation of Section 21083.4(d)(3) of the California Public Resources Code exempts these trees from the California Oak Woodlands Conservation Act because they occur on former agricultural land "used to process plant products for commercial purposes."

With respect to the California Oak Woodlands Protection Act of 2014 (Article 6.5, Sections 1625-1636 of the California Fish and Game Code), these trees do not meet the definition of CLOW habitat (Section 1628(j)). Specifically, due to the continual planting and removal of commercially-grown oaks associated with the prior nursery operations, they would never "have historically supported greater than ten (10) percent [overall] oak canopy cover" relative to the total onsite area within which these trees were grown. Please note that the non-native grassland and fallow agricultural habitats mapped in Figure 6 represent only a portion of this total onsite area. According to a Phase I Environmental Site Assessment (Petra Geotechnical, Inc., May 6, 2013), "in 2005 [a larger area comprising] the center-west and southwest

portions of the site was leased" for the above-referenced nursery operations (Figure 2 in that document). Furthermore, removal of these trees are exempt from the oak removal permit requirements of the California Oak Woodlands Protection Act (Section 1629(a) of the California Fish and Game Code) because none are "greater than or equal to 20" diameter at breast height".

Despite the findings above, the trees and understory have biological value because they provide cover, nesting and perching opportunities for avian species. As such, in addition to Mitigation Measure Bio-1 (Avian Breeding Season Requirements), Mitigation Measure Bio-2 (Habitat-Based Compensatory Mitigation for Impacts to Non-native Grassland and Extensive Agricultural Land) and Mitigation Measure Bio-5 (Habitat-Based Compensatory Mitigation for Impacts to CLOW), the applicant proposes to transplant as many of the on-site oak trees as possible, to the extent practical and feasible, as perimeter landscape screening along the north, west, and south project frontages. In addition to providing landscape screening to lessen visual impacts of the solar panels, any transplanted oaks would also serve a biological benefit because they are expected to be of continued use to native wildlife for foraging, breeding and nesting activities.

# CHAPTER 3. RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITIES

**Table 2 Project Impacts to Sensitive Vegetation Communities**

| Vegetation Community (Holland/Oberbauer Code) | Existing within Survey Area[1] (Acres) | Onsite Impacts (Acres) | Mitigation Ratio | Total Mitigation Required (Acres) |
|---|---|---|---|---|
| Southern Mixed Chaparral (37121) | 17.06 | 5.91 | 0.5:1 | 2.96 |
| Coastal Sage Scrub (32000) | 14.09 | 10.37 | 2:1 | 20.74 |
| Coast Live Oak Woodland (71100) | 1.15 | 0.05 | 3:1 | 0.15 |
| Flat-topped Buckwheat Scrub (32800) | 1.34 | 0.87 | 2:1 | 1.74 |
| Native Grassland (42100) | 0.10 | 0 | 3:1 | 0 |
| Non-native Grassland (42200) | 7.34 | 7.34 | 0.5:1 | 3.67 |
| Extensive Agriculture (18310) | 4.10 | 0.56 | 0.5:1 | 0.28 |
| Disturbed (11300) | 2.31 | 0.22 | N/A | 0 |
| Developed (12000) | 3.87 | 0.12 | N/A | 0 |
| **TOTAL** | **51.36** | **25.44** | -- | **29.54** |

[1]Survey Area includes entire 40.1-acre subject property and 100 feet beyond its boundaries.

## 3.4 Mitigation Measures

Implementation of mitigation measures Bio-2 through Bio-6, below, would reduce the Project's direct and cumulative impacts to sensitive vegetation communities (Southern Mixed Chaparral; Coastal Sage Scrub;

Coast Live Oak Woodland Disturbed; Flat-topped Buckwheat Scrub; Non-native Grassland; and Extensive Agricultural land) to less than significant levels.

**Bio-4** Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 20.50 acres of coastal sage scrub or habitat with comparable quality and type to the impacted onsite coastal sage scrub habitat has been preserved offsite within North County, to compensate for impacts to 10.25 acres of coastal sage scrub at a 2:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 20.50 acres:

**Bio-6** Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 1.74 acres of flat-topped buckwheat scrub or habitat with comparable quality and type to the impacted onsite flat-topped buckwheat scrub habitat has been preserved offsite within North County, to compensate for impacts to 0.87 acre of flat-topped buckwheat scrub at a 2:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 1.74 acres:

# CHAPTER 6. SUMMARY OF PROJECT IMPACTS AND MITIGATION

## 6.2 Mitigation Measures

Table 3 below provides a summary of the proposed mitigation measures for the significant Project impacts described above, and the level of significance after mitigation.

**Table 3 Summary of Mitigation Measures**

| Proposed Mitigation | Mitigation Measure | County Guideline | Level of Significance after Mitigation |
|---|---|---|---|
| Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 20.50 acres of coastal sage scrub or habitat with comparable quality and type to the impacted onsite coastal sage scrub have been preserved offsite within North County, to compensate for impacts to 10.25 acres of coastal sage scrub at a 2:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 20.50 acres: | Bio-4 | 4.2.A<br>4.2.D | Less than Significant |
| Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 1.74 acres of flat-topped buckwheat scrub or habitat with comparable quality and type to the impacted onsite flat-topped buckwheat scrub has been preserved offsite within North County, to compensate for impacts to 0.87 acre flat-topped buckwheat at a 2:1 mitigation ratio. The offsite mitigation area shall be in a location approved by | Bio-6 | 4.2.A<br>4.2.D | Less than Significant |

| Proposed Mitigation | Mitigation Measure | County Guideline | Level of Significance after Mitigation |
|---|---|---|---|
| the County, and shall consist of one or a combination of the following methods to total 1.74 acres: | | | |

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**GLOSSARY OF TERMS AND ACRONYMS**

| | |
|---|---|
| APN | Assessor's Parcel Number |
| BMO | Biological Mitigation Ordinance |
| CA | California |
| CALTRANS | California Department of Transportation |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CNDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| County | County of San Diego |
| County PDS | County of San Diego Planning and Development Services Department |
| CWA | Clean Water Act |
| FESA | Federal Endangered Species Act |
| GIS | Geographic Information Systems |
| HCP | Habitat Conservation Plan |
| MBTA | Migratory Bird Treaty Act |
| MSCP | Multiple Species Conservation Program |
| NCCP | Natural Communities Conservation Plan |
| NPPA | Native Plant Protection Act |
| NRCS | Natural Resources Conservation Service |
| PAMA | Pre-Approved Mitigation Area |
| Michael Baker | Michael Baker International, Inc. |
| RPO | Resource Protection Ordinance |
| SDNHM | San Diego Natural History Museum |
| SR | State Route |
| USACE | U.S. Army Corps of Engineers |
| USC | U.S. Code |
| USDA | U.S. Department of Agriculture |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |

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# EXECUTIVE SUMMARY

The proposed Granger Solar ("Project") site is located at the northeast corner of the intersection of Mesa Crest Road and Avenida Annalie in the community of Valley Center in the unincorporated area of north-central San Diego County, California. The County Assessor Parcel Number (APN) is 129-162-07. The Project proponent is preparing an application for the development and operation of an unmanned photovoltaic (PV) solar farm on the privately held property.

The Project site is within the Valley Center Community Plan area and is subject to General Plan Regional Category Semi-Rural, Land use Designation Semi-Rural SR-2. It is zoned A72 (General Agriculture). The Project requires approval of a Major Use Permit (MUP) from the County of San Diego to allow for the construction, operation, and maintenance of such facilities for the long-term generation of solar energy.

The subject property totals 40.1 acres (gross) in area. The proposed PV solar facilities would be installed on 27.1 acres of the larger property. The unaffected (undeveloped) acreage onsite would remain generally in its present state upon implementation of the proposed Project, and would not be part of the proposed MUP Project area.

The Project proposes 24,000 cubic yards of grading. The Project design consists of PV solar panels mounted on a collection of single-axis tracking (SAT) systems supported by machine-driven metal "I" beam or round pipe rack pilings. The PV solar panels would be manufactured at an offsite location and transported to the Project site. The solar panels would be installed in north/south rows that rotate to face east in the morning and west in the afternoon hours, tracking the sun about a north/south axis to maximize solar absorption. The ultimate arrangement/number of PV solar panels, racking, inverter pads and structures, metrological station, fencing, and internal access driveways are shown on the MUP Plot Plan to illustrate the general configuration of the proposed solar collection system; however, this layout is subject to modification at final engineering design.

The point of interconnection (POI) will occur at an existing utility pole within the Mesa Crest Road right-of-way (ROW) adjacent to the Project boundary. Energy generated by the Project would be delivered to the existing San Diego Gas & Electric (SDG&E) 12 kilovolt (kV) distribution line from the Project site via overhead connection, with ultimate connection to the Lilac Substation (69/12kV), located approximately 1.9 miles to the southwest of the Project site, along Gabler Drive. No offsite improvements to either the existing transmission lines or substation are required or proposed.

The PV panels would be mounted on single-axis trackers. The center axis of the single-axis trackers would have a minimum height of approximately three feet above grade. The PV panels would rotate through a 90 degree arc during the day. The maximum height of the top of panel would measure an

average of eight feet at full tilt; however, in certain cases where the ground undulates under the panels, the panel height could reach a maximum of approximately 12 feet as measured from the ground surface.

The inverter/transformer equipment pad would be approximately 16 feet wide by 33 feet long; the switchgear pad would be approximately 7.5 feet wide by 7.5 feet long. The equipment installed on the pads would measure a maximum of approximately 10 feet in height (above pad elevation). The pad would each support two 1500 kilowatt (kW) inverters and one 3 megavolt ampere (MVA) transformer. All inverter/transformer/switchgear structures would be constructed of non-flammable materials (e.g. steel). The AC power from the inverter stations would be transmitted via underground AC cable to the switchgear. The switchgear would contain breakers, relays, and monitoring and metering equipment necessary to provide for the safe and efficient transfer of power to SDG&E.

A system of 20- to 24-foot wide, all-weather internal fire access roads are proposed. The Project proposes perimeter chain link fencing up to eight feet in height and perimeter landscape screening (including coast live oaks).

The Project proposes access off of Mesa Crest Road. No improvements to this existing roadway are necessary for Project access.

This report provides the biological resources technical documentation necessary for Project review under the California Environmental Quality Act (CEQA), and for processing the MUP by the County Planning and Development Services Department (County PDS) to allow for the construction, operation, and maintenance of the proposed Project. The purpose of this report is to inventory the existing biological conditions on and in the immediate vicinity of the Project site, and analyze potential Project-related impacts to biological resources with respect to local, State, and federal policies.

Michael Baker biologist Mike Gonzales conducted a general biological survey on April 16, 2015 over the approximately 40.1-acre property and surrounding 100 feet. A portion of the property has been disturbed due to previous operation of a commercial orchard and a tree nursery. A portion of the MUP Project area contains remnants of the discontinued commercial orchard and nursery, along with associated debris and dirt pathways. Outside of the MUP Project area, but within the property is a wooden shack, probably associated with the previous nursery, and dirt pathways.

The Project would result in the loss of the following habitats: 5.91 acres of southern mixed chaparral, to be mitigated at a ratio of 0.5:1 (2.96 acres); 10.25 acres of coastal sage scrub, to be mitigated at a ratio of 1:1 (10.25 acres); 0.05 acre of coast live oak woodland disturbed, to be mitigated at a ratio of 3:1 (0.15 acre); 0.87 acre of flat-topped buckwheat scrub, to be mitigated at a ratio of 1:1 (0.87 acre); 8.38 acres of non-native grassland, to be mitigated at a ratio of 0.5:1 (4.19 acres); and 0.56 acre of extensive agriculture (fallow), to be mitigated at a ratio of 0.5:1 (0.28 acre).

Common nesting bird species and sensitive raptors protected under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code could be adversely affected by the proposed project if removal of suitable nesting habitat (i.e., mature trees within the central portion of the Project area) would occur during the general breeding season (January 15 through August 31). Mitigation measures are proposed if project grading/construction occurs during this timeframe. Therefore, the direct, indirect, and cumulative project impacts to nesting birds would be reduced to below a level of significance.

The property is located within the study area for the draft North County Plan of the County of San Diego's Multiple Species Conservation Program (MSCP). The draft North County Plan is the second of

three parts of the County's MSCP, and is a regional plan that establishes a viable preserve through a system of hardline and softline conservation areas. The draft North County Plan area encompasses 294,849 acres in and around the unincorporated communities of Bonsall, De Luz, Fallbrook, Harmony Grove, Rancho Santa Fe, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center.

The Project site is located outside of hardline conservation areas and pre-approved mitigation areas (PAMA) under the draft North County Plan. Although the property functions as a corridor for local wildlife movement, there are no wildlife corridors designated on the property by the draft North County Plan. The project would not conflict with any local policies and ordinances pertaining to protection of biological resources.

# CHAPTER 1. INTRODUCTION

## 1.1 Purpose of the Report

At the request of NLP Granger A82, LLC, Michael Baker has prepared this Biological Resources Technical Report for the proposed Granger Solar ("Project"), located at the northeast corner of the intersection of Mesa Crest Road and Avenida Annalie in the community of Valley Center in the unincorporated area of north-central San Diego County, California. The Project proponent is preparing an application for a Major Use Permit (MUP) for development and operation of an unmanned PV solar farm on the privately held property. The purpose of this report is to document the biological resources identified as present or potentially present onsite; to identify potential impacts to these resources; and to recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with federal, State, and local rules and regulations including the California Environmental Quality Act (CEQA) and the County MSCP Subarea Plan, Resource Protection Ordinance (RPO), and Biological Mitigation Ordinance (BMO). This technical documentation is also necessary for processing the MUP by the County PDS to allow for the construction, operation, and maintenance of the project.

## 1.2 Project Location and Description

The Project site is located in the community of Valley Center in the unincorporated area of north-central San Diego County (Figure 1). The Project site is depicted on the Pala, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map within Section 35 of Township 10 South, Range 2 West, San Bernardino Base and Meridian (Figure 2). Specifically, the Project site is located at the northeast corner of the intersection of Mesa Crest Road and Avenida Annalie (Figure 3); the APN is 129-162-07. The Project site is within the Valley Center Community Plan area and is subject to General Plan Regional Category Semi-Rural and Land Use Designation Semi-Rural (SR-2). It is zoned A72 (General Agriculture). The property is located within the study area for the draft North County Plan of the County's MSCP, a regional plan that establishes a viable preserve through a system of hardline and softline conservation areas. The Project site is located outside of hardline conservations areas and Pre-approved Mitigation Areas (PAMA) under the draft North County Plan.

The Project proponent is preparing an application for the development and operation of an unmanned PV solar farm on the privately held property. The Project requires approval from the County of San Diego for a Major Use Permit (MUP) to allow for the construction, operation, and maintenance of such facilities for the long-term generation of solar energy.

The subject property totals 40.1 acres (gross) in size. As illustrated in Figure 4, the proposed PV solar facilities would be installed on 27.1 acres of the larger property. The unaffected (undeveloped) acreage onsite would remain generally in its present state upon implementation of the proposed Project, and would not be part of the proposed MUP Project area.

The Project proposes 24,000 cubic yards of grading. The Project design consists of PV solar panels mounted on a collection of single-axis tracking (SAT) systems supported by machine-driven metal "I" beam or round pipe rack pilings. The PV solar panels would be manufactured at an offsite location and transported to the Project site. The solar panels would be installed in north/south rows that rotate to face east in the morning and west in the afternoon hours, tracking the sun about a north/south axis to maximize solar absorption. The ultimate arrangement/number of PV solar panels, racking, inverter pads and structures, metrological station, fencing, and internal access driveways are shown on the MUP Plot Plan to illustrate the general configuration of the proposed solar collection system; however, this layout is subject to modification at final engineering design.

The point of interconnection (POI) will occur at an existing utility pole within the Mesa Crest Road right-of-way (ROW) adjacent to the Project boundary. Energy generated by the Project would be delivered to the existing San Diego Gas & Electric (SDG&E) 12 kilovolt (kV) distribution line from the Project site via overhead connection, with ultimate connection to the Lilac Substation (69/12kV), located approximately 1.9 miles to the southwest of the Project site, along Gabler Drive. No offsite improvements to either the existing transmission lines or substation are required or proposed.

The PV panels would be mounted on single-axis trackers. The center axis of the single-axis trackers would have a minimum height of approximately three feet above grade. The PV panels would rotate through a 90 degree arc during the day. The maximum height of the top of panel would measure an average of eight feet at full tilt; however, in certain cases where the ground undulates under the panels, the panel height could reach a maximum of approximately 12 feet as measured from the ground surface.

The inverter/transformer equipment pad would be approximately 16 feet wide by 33 feet long; the switchgear pad would be approximately 7.5 feet wide by 7.5 feet long. The equipment installed on the pads would measure a maximum of approximately 10 feet in height (above pad elevation). The pad would each support two 1500 kilowatt (kW) inverters and one 3 megavolt ampere (MVA) transformer. All inverter/transformer/switchgear structures would be constructed of non-flammable materials (e.g. steel). The AC power from the inverter stations would be transmitted via underground AC cable to the switchgear. The switchgear would contain breakers, relays, and monitoring and metering equipment necessary to provide for the safe and efficient transfer of power to SDG&E.

A system of 20- to 24-foot wide, all-weather internal fire access roads are proposed. The Project proposes perimeter landscape screening (including coast live oaks) and chain link fencing up to eight feet in height.

The Project proposes access off of Mesa Crest Road. No improvements to this existing roadway are necessary for Project access.

# 1.3 Survey Methods

## 1.3.1 Pre-Survey Investigation

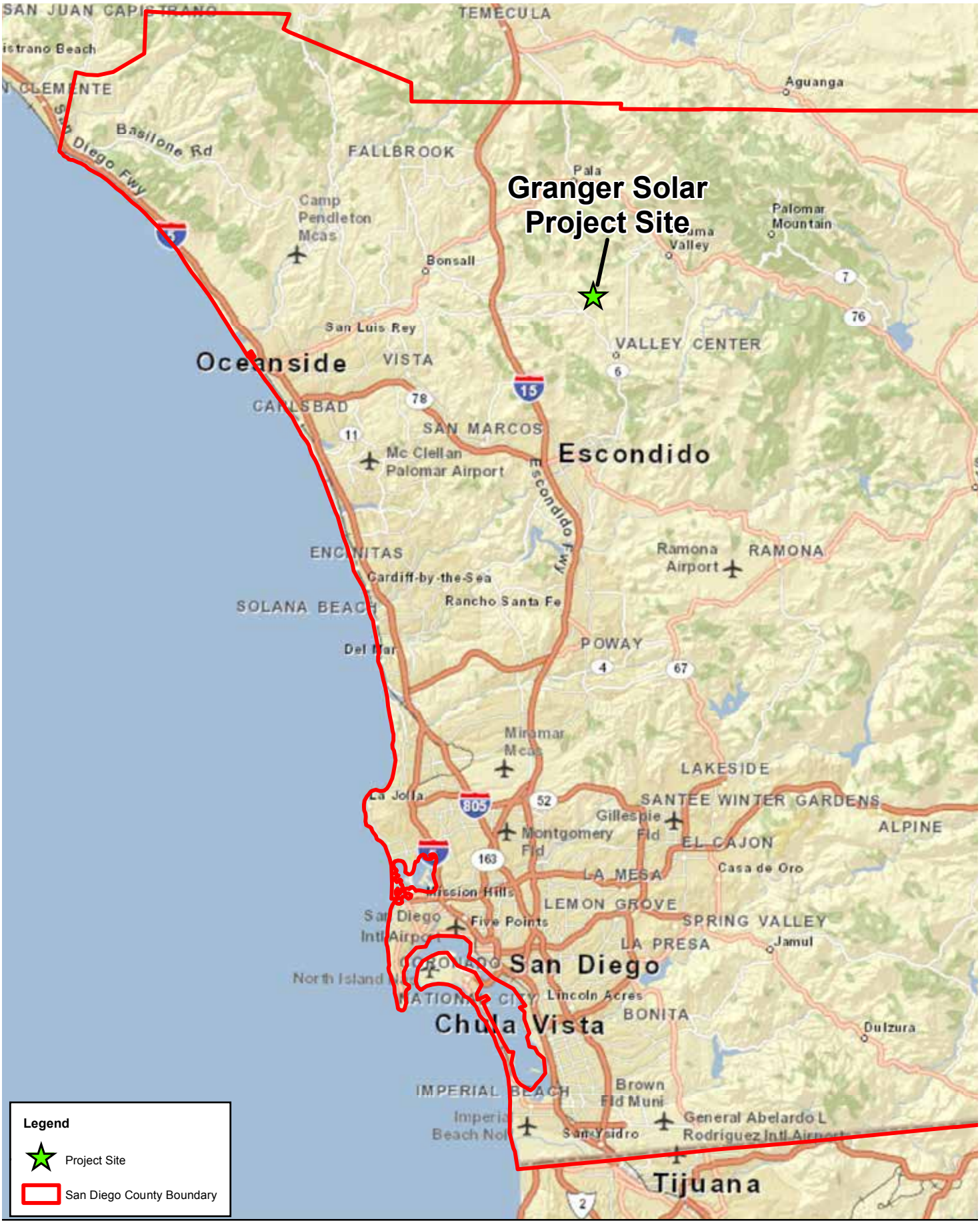
Prior to conducting field surveys, a thorough review of relevant maps, databases, and literature pertaining to biological resources known to occur within the project site was performed. Recent and historical aerial imagery (Google Earth 2014), topographic maps (USGS 1997), soils maps (USDA NRCS 2014), and other maps of the project site and vicinity were acquired and reviewed to obtain updated information on the natural environmental setting. In addition, a query of sensitive species and habitats databases was conducted, including the California Natural Diversity Database (CNDDB; CDFW 2014a), the California Native Plant Society (CNPS) Electronic Inventory (CNPS 2014), Consortium of California Herbaria (Jepson Online Interchange 2014), and San Diego Natural History Museum (SDNHM) Plant Atlas (SDNHM 2014) applications, as well as a review of regional lists produced by the U.S. Fish and Wildlife Service (USFWS 2014a), California Department of Fish and Wildlife (CDFW 2011), and the County (County of San Diego 2010).

The pre-survey investigation also included a verification of whether or not the project site falls within areas designated as final or proposed USFWS Critical Habitat for federally threatened or endangered species (USFWS 2014b), as well as hardline conservation areas and PAMA under the draft North County Plan of the County's MSCP. A list of special-status species that could occur onsite was compiled by the County PDS in their project scoping letter (December 19, 2015, Valley Center Granger: MPA 14-025), and recorded locations of these were mapped and overlaid onto aerial imagery using Geographic Information Systems (GIS). In addition, the pre-survey investigation included a review of the County's Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources (County of San Diego 2010).

## 1.3.2 General Biological Survey

A general biological survey was conducted by Michael Baker biologist Mike Gonzales on April 16, 2015, between the hours of 8:00 AM and 3:00 PM. The area surveyed included the entire 40.1-acre property and 100 feet beyond (survey area). Weather conditions included clear skies, with an average temperature of 69 degrees Fahrenheit, and calm winds averaging 2.4 miles per hour (mph). No unusual weather had occurred in the region during the week prior to the survey. The survey was conducted on-foot and included 100 percent visual coverage of the western half of the survey area in which meandering transects were performed. The east portion of the site was viewed from the perimeter trail as it was unnecessary to survey this area since no development is proposed here and the vegetation was very dense and the topography steep.

Another general biological and ground-truthing survey was conducted by Mike Gonzales and RBC biologists Jim Rocks and Shannon Walsh on June 18, 2015, between the hours of 12:00 and 4:00 PM. The area surveyed included the entire 40.1-acre property and 100 feet beyond (survey area). Weather conditions included clear skies, with an average temperature of 90 degrees Fahrenheit, and winds ranging 9-14 mph. The survey was conducted on-foot and included 100 percent visual coverage of the western half of the survey area in which meandering transects were performed. The east portion of the site was viewed from the perimeter trail as it was unnecessary to survey this area since no development is proposed here and the vegetation was very dense and the topography steep.




Michael Baker INTERNATIONAL

0 2.5 5 10 Miles

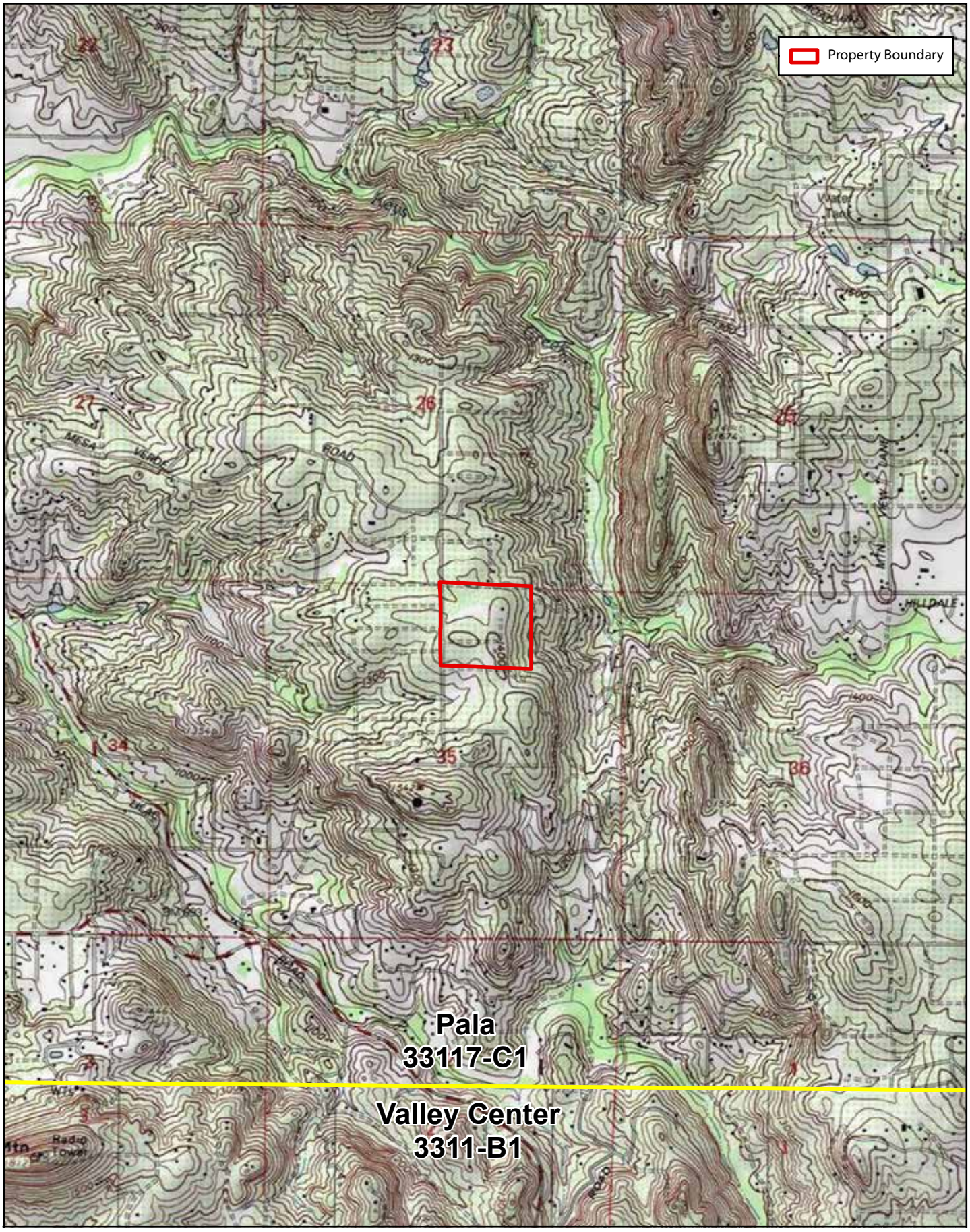
Source: SanGIS

145597BIOFigures.indd

Granger Solar

**REGIONAL LOCATION MAP**

Figure 1




Michael Baker INTERNATIONAL

0 1,000 2,000 4,000 Feet

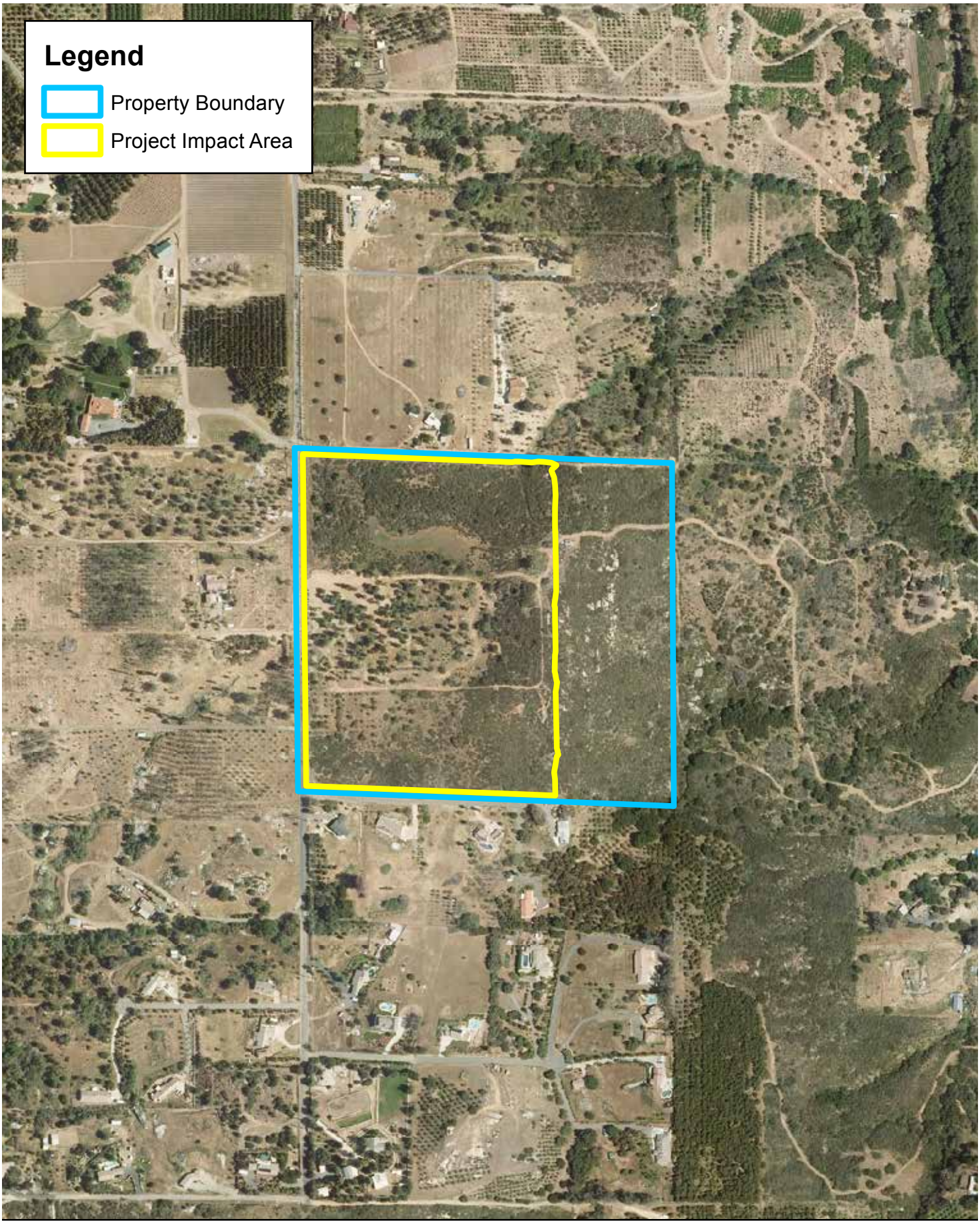
Source: USGS, SanGIS

145597BIOFigures.indd

Granger Solar

**LOCAL VICINITY MAP - USGS BASE**

Figure 2




Michael Baker INTERNATIONAL

0 250 500 1,000 Feet

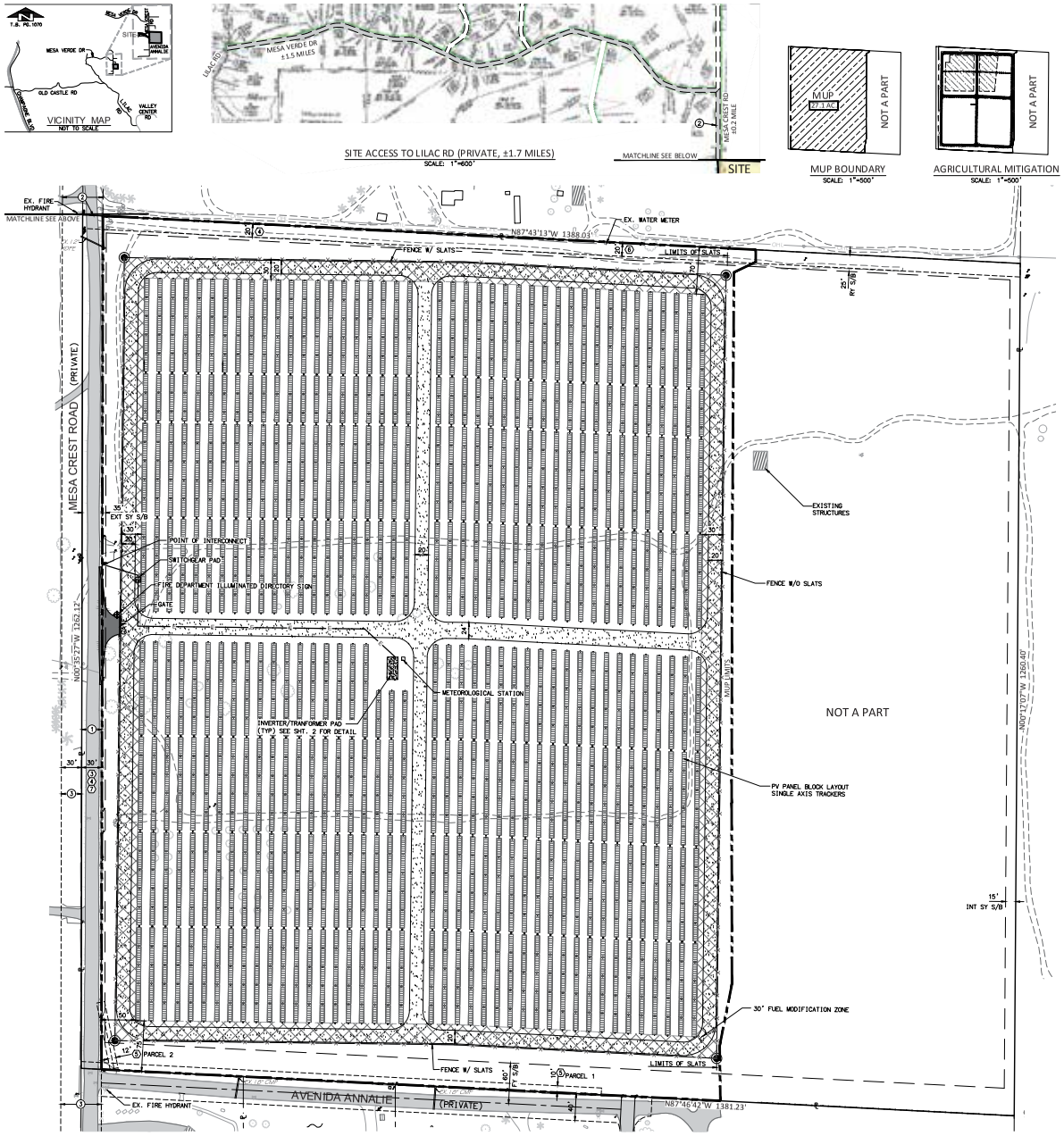
Source: Eagle Aerial - 2013

Granger Solar

**LOCAL VICINITY MAP - AERIAL BASE**

Figure 3

145597BIOFigures.indd




## NOTES

1. GROSS AREA: 40.1 ACRES
2. NET AREA: 39.2 ACRES (MESA CREST ROAD EASEMENT = 0.9 AC)
3. MUP BOUNDARY AREA: 27.1 AC
4. GENERAL PLAN SEMI-RURAL RESIDENTIAL (SR-2)
5. REGIONAL CATEGORY: SEMI-RURAL LANDS
6. TOPOGRAPHIC SOURCE: AEROTECH MAPPING INC, FLOWN 3/10/2015
7. ASSOCIATED REQUESTS: NONE
8. WATER DISTRICT: VALLEY CENTER MUNICIPAL WATER DISTRICT
9. FIRE DISTRICT: VALLEY CENTER FIRE PROTECTION DISTRICT
10. THE APPROVAL OF THIS MAJOR USE PERMIT (MUP) AUTHORIZES THE FOLLOWING: CONSTRUCTION, OPERATION, AND MAINTENANCE OF A PHOTOVOLTAIC SOLAR FARM PURSUANT TO SECTION 6952 OF THE SAN DIEGO COUNTY ZONING ORDINANCE.
11. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
12. ALL SOLAR EQUIPMENT STRUCTURES TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS (CONCRETE, BLOCK, METAL) OR SIMILAR AND PAINTED EARTHTONE COLORS.
13. LIGHTING FOR MAINTENANCE AND SECURITY PROPOSES ONLY. SHIELDED LIGHTING LOCATED AT ENTRANCE GATES AND INVERTER/TRANSFORMER PADS & SHALL CONFORM TO COUNTY OF SAN DIEGO OUTDOOR LIGHTING REQUIREMENTS. SEE DETAIL ON SHEET 2.
14. PHASING – PROJECT MAY BE IMPLEMENTED IN SEVERAL PHASES WITHOUT REGARD TO SEQUENCE.
15. ALL DISTURBED AREAS WOULD BE COVERED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
16. SEE PRELIMINARY GRADING PLAN FOR PROPOSED GRADING.
17. SITE ACCESS GATE(S) TO BE EQUIPPED WITH FIRE DEPARTMENT APPROVED STROBE LIGHT ACTIVATION AND KNOX KEY-OPERATED SWITCH.
18. SOLAR RELATED FACILITIES (PANELS, RACKING, ELECTRICAL CONNECTIONS, INVERTER/TRANSFORMER PADS, SWITCHGEAR, MET STATION, FENCING, AND INTERNAL ACCESS, ETC.) SHOWN ON THE PLOT PLAN MAY BE RELOCATED, RECONFIGURED, AND/OR RESIZED WITHIN THE SOLAR FACILITY DEVELOPMENT AREA WITH THE ADMINISTRATIVE APPROVAL OF THE DIRECTOR OF PDS WHEN FOUND IN CONFORMANCE WITH THE INTENT AND CONDITIONS OF PERMIT'S APPROVAL. INVERTER/TRANSFORMER LOCATIONS CAN BE RELOCATED/RECONFIGURED WITHOUT REQUIREMENT OF MINOR DEVIATION. THE INVERTER/TRANSFORMER MUST COMPLY WITH THE NOISE ORDINANCE AND MUST BE ELEVATED 1' ABOVE FLOOD ELEVATION. THE 24' FIRE ACCESS ROAD WIDTHS MAY BE REDUCED ADMINISTRATELY WITH THE APPROVAL OF THE COUNTY AND FIRE AUTHORITY HAVING JURISDICTION OVER THE PROJECT.
19. A SYSTEM IDENTIFICATION SIGN SHALL BE LOCATED AT THE GATE ENTRANCE. SIGN SHALL BE 12"X18". SIGN SHALL LIST NAME OF SITE AND CONTACT INFORMATION AS PROVIDED BY SDGE.
20. PRIVATE PROPERTY/NO TRESPASSING AND HIGH VOLTAGE SIGNS SHALL BE LOCATED AT THE GATE ENTRANCE AND EVERY 100' MINIMUM ON FENCE. THE SIGN SHALL BE 10'X14'.MISCELLANEOUS INTERIOR DIRECTIONAL AND SAFETY SIGNAGE ARE PERMITTED.
21. OUTDOOR LIGHTING CIRCUITS SHALL INCORPORATE DUSK-TO-DAWN PHOTOCELL CONTROLLERS, OCCUPANCY SENSORS, AND/OR SWITCHES AS APPROPRIATE.
22. A METEOROLOGICAL (MET) STATION SHALL BE LOCATED ADJACENT TO THE INVERTER/EQUIPMENT PAD.

## LEGEND

- PROPERTY BOUNDARY
- EXISTING EASEMENT
- RIGHT-OF-WAY
- MUP BOUNDARY (27.1 AC)
- SETBACK LINE
- PROPOSED 7' CHAIN-LINK FENCE W/ SLATS (6' MAX.)
- PROPOSED ACCESS GATE (GATE)
- EXISTING AC PAVEMENT
- PROPOSED AC PAVEMENT
- PROPOSED FIRE ACCESS ROAD-ALL WEATHER (WIDTH PER PLAN)
- EXISTING OVERHEAD POWERLINE (OHP)
- EXISTING POWER POLE
- PROPOSED UNDERGROUND INTERCONNECTION (E)
- PROPOSED PV PANEL
- PROPOSED INVERTER/TRANFORMER PAD (1)
- 30' FUEL MODIFICATION ZONE UNLESS OTHERWISE NOTED
- VIDEO CAMERA ON 10' POLE (4)
- FRONT YARD SETBACK — FY S/B
- REAR YARD SETBACK — RY S/B
- EXTERNAL SIDE YARD SETBACK — EXT SY S/B
- INTERNAL SIDE YARD SETBACK — INT SY S/B
- AGRICULTURAL MITIGATION (5.51 AC)

## ASSESSOR PARCEL NUMBER

129-162-07

## LEGAL DESCRIPTION

ALL THOSE PORTIONS OF THE WEST HALF OF THE NE QUARTER SECTION 35, TOWNSHIP 10 SOUTH, RANGE 2 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA.

## BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83, EPOCH: NSRS 2007, CORS 2011), ZONE 6, BASED LOCALLY UPON CONTROL STATIONS P478 & PMOB, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC) WITH A BEARING OF S 50°43'25" E.

## BENCHMARK

STATION NAME: 13525 PER RECORD OF SURVEY 17997. FOUND 2" BRASS DISK STAMPED 51-61-KP30 FLUSH IN BOULDER.

ELEVATION = 1679.00 DATUM: NAVD88

## SITE ADDRESS:

THE NE CORNER OF MESA CREST RD AND AVENIDA ANNALIE VALLEY CENTER, CA 92082

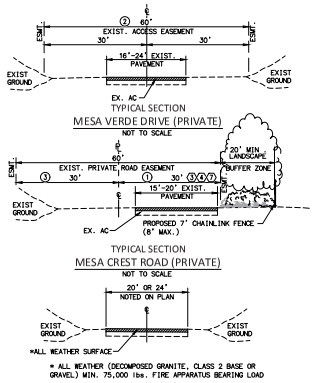
## EXISTING EASEMENTS (TO REMAIN)

| | DESCRIPTION | DOC. # |
|---|---|---|
| 2 | PRIVATE ROAD & PUBLIC UTILITY PCL#1 | BK. 7165, PG. 594, 7/15/58 |
| 4 | PUBLIC UTILITIES | INSTR. 9178, 1/18/65 |
| 5 | SDG&E PUBLIC UTILITIES | INSTR. 82-395792, 12/28/82 |
| 6 | SDG&E PUBLIC UTILITIES | INSTR. 83-119656, 4/14/83 |
| 7 | PRIVATE ROAD AND PUBLIC UTILITY | INSTR. 85-167501, 5/13/85 |

STEWART TITLE COMPANY PRELIMINARY REPORT ORDER NUMBER 011800-162713, DATED 4/29/2015 PARCEL 1 2 & 3

## ZONING

| ZONE | | |
|---|---|---|
| USE REGULATIONS | | A72 |
| ANIMAL REGULATIONS | | N |
| DEVELOPMENT REGULATIONS | DENSITY | -- |
| | LOT SIZE | 2 AC |
| | BUILDING TYPE | C |
| | MAXIMUM FLOOR AREA | -- |
| | FLOOR AREA RATIO | -- |
| | HEIGHT | G |
| | LOT COVERAGE | -- |
| | SETBACK | C |
| | OPEN SPACE | -- |
| SPECIAL AREA REGULATIONS | | A |




Michael Baker INTERNATIONAL

Granger Solar

# PROPOSED SITE PLAN

Figure 4

145597BIOFigures.indd

Physical parameters assessed during both surveys included vegetation and soil conditions, presence of indicator plant and wildlife species, slope, aspect and hydrology. The surveys involved a general inventory of existing conditions including mapping existing vegetation communities/sensitive habitat types, counting oak trees, and assessing suitability for sensitive plant and wildlife species. All plant and wildlife species observed were recorded (Appendix A), and representative photographs were taken of the survey area (Appendix B).

Vegetation communities were mapped in the field using aerial imagery. The vegetation communities were classified according to Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986) and modifications by Oberbauer *et al.* (2008), and are consistent with Table 2 of the County's Guidelines (County of San Diego 2010). The names of plant species follow the nomenclature suggested by CNPS and Lightner (2011). The names of wildlife follow the nomenclature suggested by CDFW (2008) and Peterson (2010).

Data was collected in the field using binoculars and a Kestrel hand-held air temperature and wind speed recording device.

## 1.4 Environmental Setting

The MUP Project area comprises 27.1 acres of a larger 40.1-acre property, and is bounded on the west by Mesa Crest Road, and on the south by Avenida Annalie. It consists of gently rolling to flat topography within the northwest, central and southwest portions, with a small hill in the east portion. Site elevations range from 1,385 above mean sea level (AMSL) along the southern boundary to 1,415 AMSL in the central portion of the site, and sloping down to 1,395 AMSL along the northern boundary. A soft-bottomed drainage swale with potential jurisdictional features exists adjacent to the southern end of the eastern boundary of the 40.1-acre property. The drainage swale is located outside the MUP Project area and would not be impacted by the Project. The MUP Project area has been disturbed due to previous operation of a commercial orchard and tree nursery, which operated from the 1980s to 2013 (as documented in historic aerial photographs of the site). There are numerous dirt roads, scattered debris, and remnants of the discontinued orchard within the site, including approximately 150 individual coast live oaks. As part of the previous nursery operation, these trees were planted in ground and then placed into boxes for commercial sale. The trees were abandoned when the commercial orchard/nursery ceased operating on the site, and are in various degrees of health. Because these trees were commercially grown and not naturally occurring, they are not considered a sensitive biological resource. A wooden shack, probably associated with the previous nursery, exists on the property, outside of the proposed MUP Project area.

As depicted in Figure 5, the 40.1-acre property consists of Fallbrook-Vista Coarse Sandy Loam (FvE) (15 to 30 percent slopes, approximately 8%), Placentia Sandy Loam (PeC) (2 to 9 percent slopes, approximately 6%), Metamorphic Rock (MrG) (approximately 22%), and Vista Coarse Sandy Loam (VsC) (5 to 9 percent slopes, approximately 64%) (USDA Natural Resources Conservation Services).

Existing land uses surrounding the Project site include: rural residential properties to the north; rural vacant and land to the east; Avenida Annalie and rural residential properties to the south; and Mesa Crest Road and rural residential and agricultural properties to the east.

### 1.4.1 Regional Context

The 40.1-acre property is located in the Valley Center community of north-central San Diego County. Figures 2 and 3 show the site context. It is within the study area for the draft North County Plan of the MSCP. The North County Plan is the second of three parts of the County's MSCP, and is a regional plan that establishes a viable preserve through a system of hardline and softline conservation areas in and around the unincorporated communities of Bonsall, De Luz, Fallbrook, Harmony Grove, Rancho Santa Fe, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center.

The 40.1-acre property is located outside of hardline conservation areas and PAMA under the draft North County Plan. The site is not located adjacent to any existing preserve areas. It is surrounded by privately held agricultural lands, rural residences, and vacant lands.

### 1.4.2 Habitat Types/Vegetation Communities

The survey area comprises the entire 40.1-acre property and 100 feet beyond its boundaries. As depicted in Figure 6 and summarized in Table 1, nine habitat types/vegetation communities are mapped for the survey area: Southern Mixed Chaparral; Coastal Sage Scrub; Coast Live Oak Woodland; Flat-topped Buckwheat Scrub; Native Grassland; Non-native Grassland; Extensive Agriculture; Disturbed/Ornamental; and Developed.

A soft-bottomed drainage swale is adjacent to the southern end of the eastern boundary of the 40.1 acre property. Because it is located outside of the MUP Project area, no wetland delineation is required. No riparian/riverine habitat and aquatic resources were found within the MUP Project area.

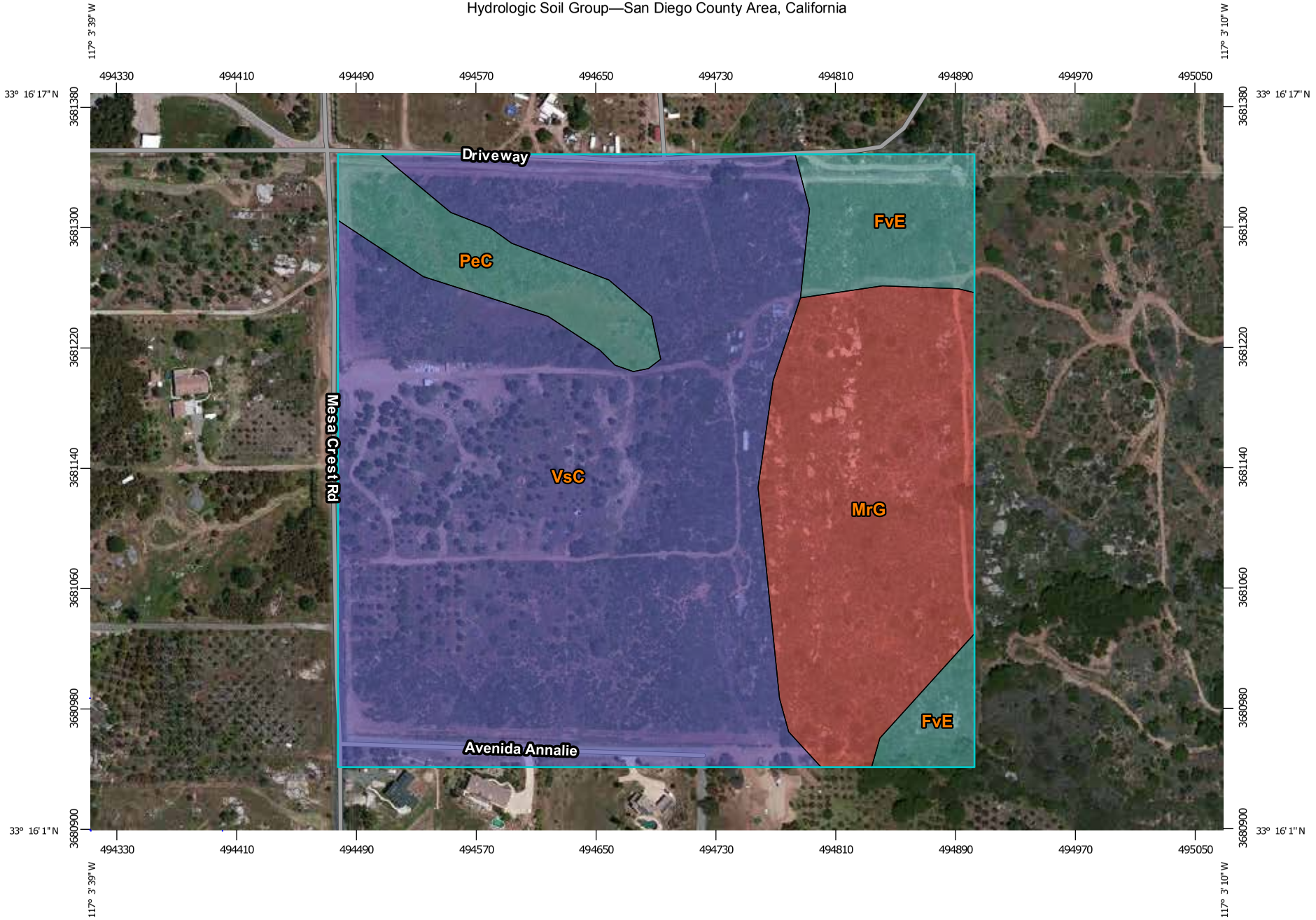
The habitat type/vegetation communities are identified in Table 1 and described in detail below.

**Table 1 Vegetation Communities within the Survey Area[1]**

| Vegetation Community (Holland/Oberbauer Code) | Existing Onsite (acres) |
|---|---|
| Southern Mixed Chaparral (37121) | 17.06 |
| Coastal Sage Scrub (32000) | 13.96 |
| Coast Live Oak Woodland (71160) | 1.15 |
| | |
| Flat-topped Buckwheat Scrub (32800) | 1.34 |
| Native Grassland (42100) | 0.10 |
| Non-native Grassland (42200) | 8.38 |
| Extensive Agriculture (18310) | 4.10 |
| Disturbed (11300)/Ornamental | 2.42 |
| Developed (12000) | 3.87 |
| **TOTAL HABITAT** | **52.38** |

[1] Survey Area includes entire 40.1-acre subject property and 100 feet beyond its boundaries

Hydrologic Soil Group—San Diego County Area, California




Michael Baker INTERNATIONAL

Source: USDA, Natural Resources Conservation Service, 3/20/2015.

145597BIOFigures.indd

N

0 50 100 200 300 Meters

0 150 300 600 900 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

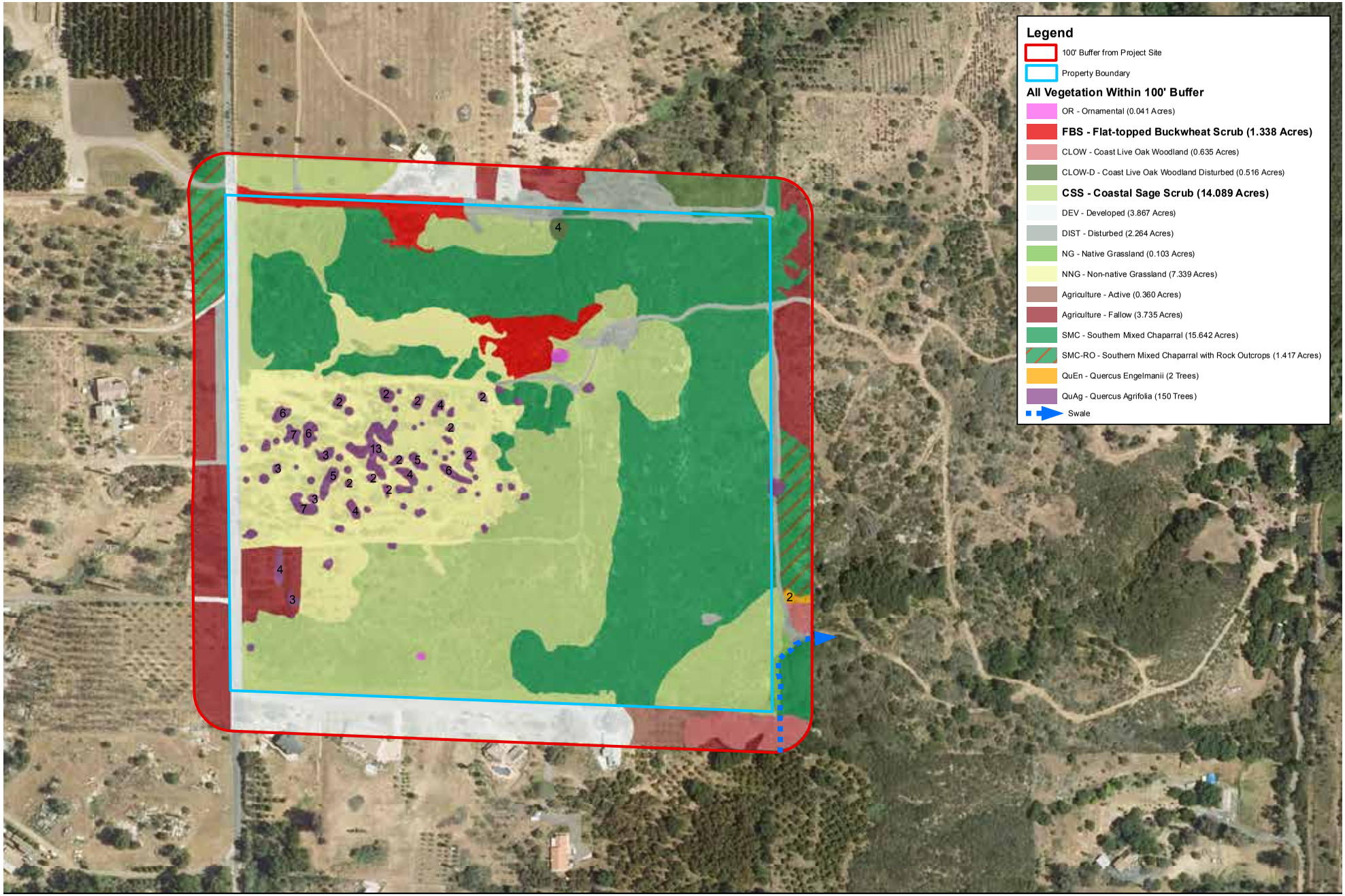
**LEGEND**

FvE: Fallbrook-Vista sandy loams, 15 to 30 percent slopes
MrG: Metamorphic rock land
PeC: Placentia sandy loam, 2 to 9 percent slopes
VsC: Vista coarse sandy loam, 5 to 9 percent slopes

Granger Solar

**SOILS MAP**

Figure 5




Michael Baker INTERNATIONAL

0 100 200 400 Feet

Source: Eagle Aerial - 2013, SanGIS

145597BIOFigures.indd

Granger Solar

# VEGETATION MAP

Figure 6

## Southern Mixed Chaparral (17.06 Acres)

Southern mixed chaparral (SMC) is shrub habitat than can be dominated by a variety of broad-leaved sclerophyll shrub species. The SMC habitat that occurs in the survey area is dominated by chamise (*Adenostoma fasciculatum*), laurel sumac (*Malosma laurina*), black sage (*Salvia mellifera*), and mission manzanita (*Xylcooccus bicolor*), in addition to Nuttall snapdragon (*Antirrhinum nuttallianum* ssp. *nuttallianum*), coastal sagebrush (*Artemisia californica*), broom baccharis (*Baccharis sarothroides*), weed mariposa lily (*Calochortus weedii var. weedii*), field sun cup (*Camissoniopsis hirtella*), ceanothus (*Ceanothus* spp.), mountain mahogany (*Cercocarpus betuloides* var. *betuloides*), California aster (*Corethrogyne filaginifolia*), dodder (*Cuscuta californica* var. *californica*), thread-leaf woolly-star (*Eriastrum filifolium*), golden yarrow (*Eriophyllum confertifolium* var. *confertifolium*), California coffee berry (*Frangula californica* sspp. *californica*), sawtooth goldenbush (*Hazardia squarrosa* var. *squarrosa*), yuccas (*Hesperoyucca whipplei, Yucca schiddigera)*, bush lupine (*Lupinus excubitus* var. *hallii*), monkeyflowers (*Mimulus* spp.), coast prickly pear (*Opuntia littoralis*), bird's foot fern (*Pellaea mucronata* var. *mucronata*), phacelias (*Phacelia* spp.), San Diego fiesta flower (*Pholistoma racemosum*), California everlasting (*Pseudognaphalium californicum*), interior live oak (*Quercus agrifolia* var. *oxyadenia*), lemonadeberry (*Rhus integrifolia*), sugar bush (*Rhus ovata*), California bee plant (*Scrophularia californica*), and Indian pink (*Silene laciniata* ssp. *laciniata*). Southern mixed chaparral is considered sensitive by the County of San Diego. Extensive outcroppings occur in two offsite areas that are located within the 100-foot buffer area; one adjacent to the northwest corner of the property and another adjacent to the southeast boundary (see diagonal red-hashing in Figure 6). With the exception of an existing wooden structure, a dirt road extending easterly from this structure, and dirt roads along the east and south property boundaries, habitat value is high due to the overall undisturbed condition of the SMC mapped throughout the site (Figure 6) which is comprised of the primary constituent plant elements listed above (see Photo 5 in Appendix B).

## Diegan Coastal Sage Scrub (13.96 Acres)

Diegan coastal sage scrub (DCSS) is comprised of low, soft-woody subshrubs to about 1 meter (3 feet) high, many of which are facultatively drought-deciduous. This association is typically found on dry sites, such as steep, south-facing slopes or clay-rich soils that are slow to release stored water. Dominant shrub species in this vegetation type vary, depending on local site factors and levels of disturbance.

DCSS within the survey area is dominated by coastal sagebrush, California buckwheat (*Eriogonum fasciculatum*), sawtooth goldenbush, laurel sumac, and lemonadeberry, in addition to deerweed (*Acmispon glaber*), Nuttall snapdragon, broom baccharis, field sun cup, common tarplant (*Centromadia pungens* sspp. *laevis*), California aster, fascicled tarweed (*Deinandra fasciculata*), thread-leaf woolly-star, golden yarrow, yuccas, telegraph weed (*Heterotheca grandiflora*), phacelias, California everlasting, interior live oak, sugar bush, black sage, and California bee plant. Disturbed DCSS habitats within the survey area are dominated by wild oat (*Avena barbata*), black mustard (*Brassica nigra*), bromes (*Bromus* spp.), yellow star-thistle (*Centaurea solstitialis*), storksbills (*Erodium* spp.), fescues/rye grass (*Festuca* spp.), and short-pod mustard (*Hirschfeldia incana*), in addition to iceplant (*Carpobrotus* spp.), fennel (*Foenicularium vulgare*), barleys (*Hordeum* spp.), and rabbitfoot (*Polypogon monspeliensis*). Habitat value is high in the north, east and south portions of the property (Figure 6) due to minimal disturbances in these areas. With the exception of an existing wooden structure, a dirt road extending easterly from this

structure, and dirt roads along the north, east and south property boundaries, the DCSS habitat in these areas is undisturbed and comprised of the primary constituent plant elements listed above. In contrast, the disturbed-DCSS areas that are mapped in the northwest, north-central and south-central portions of the site (Figure 6) are of moderate habitat value because these areas have been exposed to greater disturbance levels. Specifically, there are several patches of disturbance that infiltrate these areas (see Photos 7-12 in Appendix B) which either contain bare dirt, ash deposits from unauthorized burns, or trash; or are invaded by non-native species as listed above.

## Coast Live Oak Woodland (1.15 Acres)

Coast live oak woodland (CLOW) is dominated by coast live oak (*Quercus agrifolia*) and typically occurs on stream banks, alluvial terraces, slopes, and flats, where soils are deep, sandy, or loamy with high organic matter. It is presently in undisturbed form along the drainage swale located at the south end of the east boundary of the 40.1-acre property, outside of the property boundary within the 100-foot buffer area, and in disturbed form as a small clump of four trees inside the north property boundary (Figure 6). CLOW is a sensitive habitat type according to CDFW and the County of San Diego. The undisturbed habitat value is high, and the disturbed habitat value is moderate because a dirt road cuts through the small patch inside the north property boundary, dividing it into two trees each on either side of the road. Understory elements in both areas consist of morning-glory (*Calystegia longipes*), yellow bush-penstemon (*Keckiella antirrhinoides* var. *antirrhinoides*), wild cucumber (*Marah macrocarpus*), phacelias, holly-leaf cherry (*Prunus ilicifolia* ssp. *ilicifolia*), California everlasting, lemonadeberry, and poison oak (*Toxicodendron diversilobum*).

It should be noted that, in addition to the CLOW habitat described above, there are approximately 150 individual coast live oaks in the survey area, with the majority of these trees occurring within non-native grassland habitatin the west-central portion of the site (Figure 6). There are a few clumpings of trees scattered throughout this area, but the overall oak canopy cover is less than 50% and these trees are co-dominant with eucalyptus, ficus, laurel sumac, tree tobacco (*Nicotiana glauca*), and Mexican fan palm (*Washingtonia robusta*). The understory vegetation beneath the oaks and the areas between the individual oaks are dominated by non-native grasses and other invasive plants, such as wild oat, black mustard, bromes, yellow star thistle and other thistles (*Carduus pycnocephalus, Silybum marianum, Sonchus asper* ssp. *asper*), tocalote (*Centaurea melitensis*), horseweed (*Conyza canadensis*), storksbills, fescues/rye grass, short-pod mustard, barleys, California plantain (*Plantago erecta*), rabbitfoot, and wild radish (*Raphanus sativus*), and also include some dead orchard trees (see Photos 1 and 13-19 in Appendix B). These oak trees are the result of a previous commercial orchard/nursery that operated on the site from the 1980s to 2013 (as documented in historic aerial photographs of the site). As part of the orchard/nursery operation, the oaks were planted in ground and then placed into boxes for commercial sale. The trees were abandoned when the orchard/nursery ceased operating on the site and are in various degrees of health. Because these trees were commercially grown and not naturally occurring, they are not considered a sensitive biological resource.

## Flat-topped Buckwheat Scrub (1.34 Acres)

A nearly monoculture community usually resulting from disturbance and transitioning to, or intergrading with, DCSS and chaparral habitats. Species characteristic of this community appear over time often in disturbed areas in the coastal and foothill areas of San Diego County. The Buckwheat Scrub in the

northwest and north-central portions of the survey area (Figure 6) is dominated by California buckwheat. Habitat value is not high but moderate because there are several patches of disturbance that infiltrate these areas (see Photos 2, 4 and 20-23 in Appendix B) which either contain bare dirt, ash deposits from unauthorized burns, or trash; or are invaded by non-native species as listed above.

## Native Grassland (0.10 Acre)

Native grassland is a rare community type that typically occurs on fine-textured (often clay) soils and is dominated by perennial grasses. This community is adjacent to and often mixed in with chaparral, DCSS, and other habitat types. Located just outside and adjacent to the southeast corner of the property boundary within the 100-foot buffer area (Figure 6), dominant species within the offsite native grassland include purple needle grass (*Nassella pulchra*) and blue-eyed grass (*Sisyrinchum bellum*). Habitat value is high because of its undisturbed condition and its association with a soft-bottom drainage swale.

## Non-native Grassland (8.38 Acre)

Non-native grassland generally occurs on fine-textured loam or clay soils that are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. Non-native grassland is characterized by a dense to sparse cover of annual grasses, often with native and non-native annual forbs (Holland 1986). This habitat is a disturbance-related community most often found in old fields or openings in native scrub habitats. This association has replaced native grassland and DCSS at many localities throughout Southern California due to disturbance and non-native plant introduction. As shown in Figure 6, this habitat occurs in a large field in the west-central portion of the site that was previously used as a commercial orchard/ nursery (see Photos 1 and 24-26 in Appendix B), and is comprised of the following plant species where the proportion of non-natives is greater than natives: deerweed, western ragweed (*Ambrosia psilostachya*), tarragon (*Artemisia dracunculus*), wild oat, black mustard, bromes, thistles, tocalote, common tarplant, horseweed, dove weed (*Croton setigerus*), forget-me-not (*Cryptantha angustifolia*), golden yarrow, storksbills, fescues/rye grass, telegraph weed, short-pod mustard, barleys, Canary Island sea-lavender (*Limonium perezii*), purple needle grass, California plantain, rabbitfoot, California everlasting, and wild radish. Habitat value is moderate due to use of these areas for foraging by raptors.

## Extensive Agriculture (4.10 Acres)

Extensive agriculture typically forms a dense habitat with nearly 100 percent cover. Planted fields located just outside and adjacent to the southeast property boundary within the 100-foot buffer area (Figure 6) are usually monoculture crops that are irrigated and usually artificially seeded and maintained; however, the inactive fields in the southwest portion of the site and located adjacent to the west, north and northeast property boundaries within the 100-foot buffer area (Figure 6) are dominated by dead orchard trees and non-native grasses. Due to these disturbed conditions, habitat value is low but the trees still provide cover, nesting and perching habitat for avian species.

## Disturbed/Ornamental (2.42 Acres)

Disturbed/ornamental habitat consists of areas dominated by invasive non-native forbs (herbaceous, non-grass species) that are adapted to a regime of frequent disturbances. Areas that have been used as active staging areas for past agricultural operations, an existing wooden structure, dirt pathways, ornamentals

(peppertree) are included in this habitat (Figure 6). Per the County Biology Guidelines, vegetative cover in these areas comprises less than 10% of the surface area and there is evidence soil disturbance/compaction, building foundations and debris from previous legal human activities (see Photos 27-37 in Appendix B). Dominant plant species include: deerweed, western ragweed, tarragon, wild oat, black mustard, bromes, thistles, tocalote, common tarplant, horseweed, dove weed, forget-me-not, golden yarrow, storksbills, fescues/rye grass, telegraph weed, short-pod mustard, barleys, Canary Island sea-lavender, rabbitfoot, California everlasting, and wild radish. This vegetation/habitat community is not considered sensitive by the County of San Diego or State or federal agencies. Due to these disturbed conditions, habitat value is low.

## Developed (3.87 Acres)

Developed areas do not constitute a vegetation classification, but rather a land cover type. Areas mapped as developed are largely devoid of vegetation due to human development or disturbance. Roads and structures located adjacent to the south, west, and north property boundaries within the 100-foot buffer area (Figure 6) were mapped as developed. These areas are not considered sensitive by the County of San Diego or State or federal agencies. Due to these disturbed conditions, habitat value is low.

### 1.4.3 Flora

Approximately 111 plant species, the majority of which are listed above, were observed within the survey area. The complete list is provided in Appendix A. Forty-one plant families are represented.

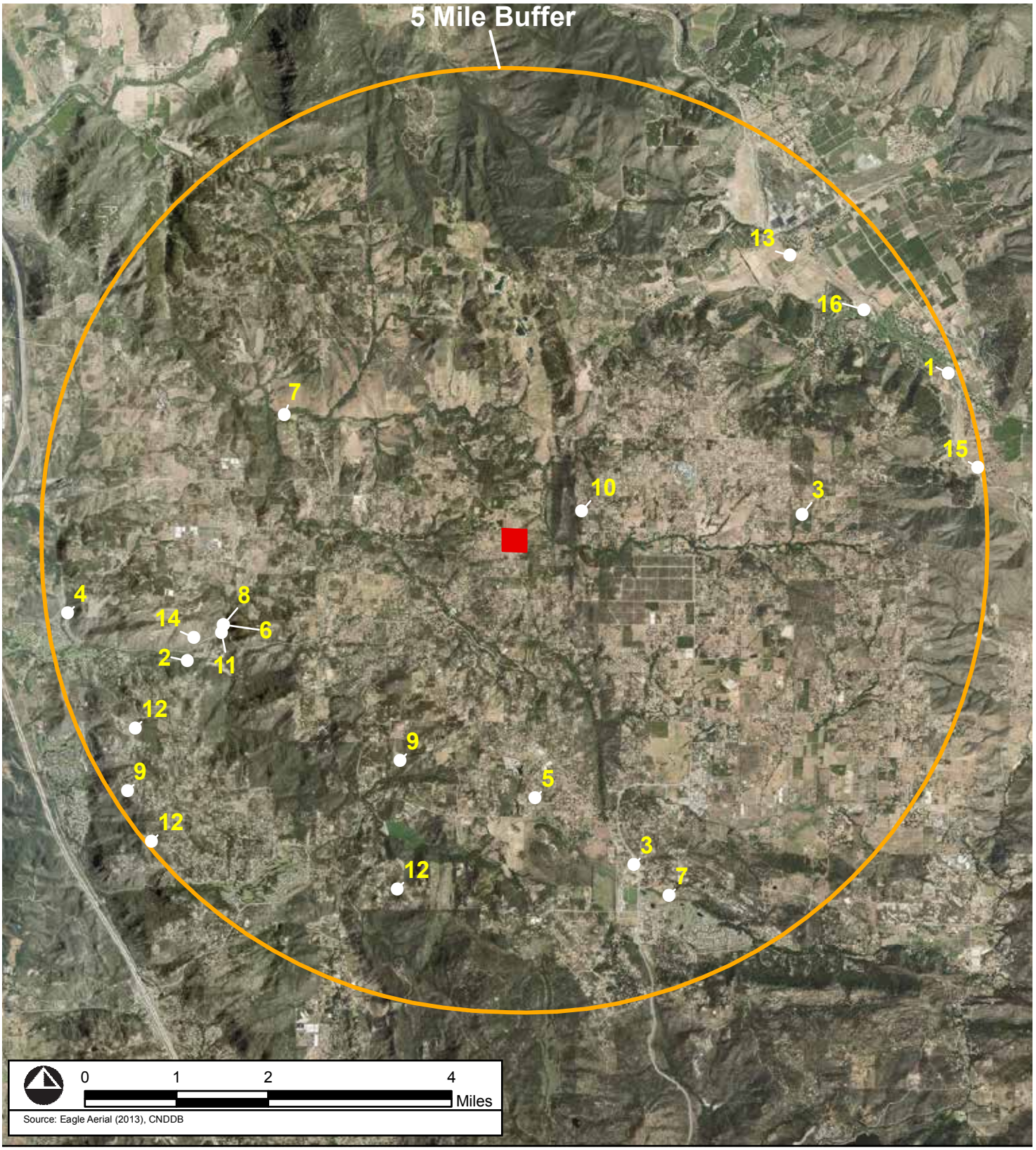
### 1.4.4 Fauna

Thirty two bird species, one reptile, and four mammals were observed within the survey area during the general biological survey (Appendix A).

### 1.4.5 Special-Status Plant Species

Recorded locations of potentially-occurring special-status plant species within 5 miles of the project site based on the CNDDB were mapped and overlaid onto aerial imagery (Figure 7). For purposes of this assessment, special-status plant species include plants that are: federally listed as threatened or endangered by the USFWS; State listed as threatened or endangered or considered sensitive by the CDFW; CNPS Rank 1A, 1B, 2A, or 2B species, as recognized in the CNPS' Inventory of Rare and Endangered Vascular Plants of California and consistent with CEQA guidelines; and List A, B, C, or D species included on the County's Sensitive Plant List in Table 2, Appendix B, of the County's Guidelines (County of San Diego 2010).

Engelmann oak (*Quercus engelmanii*) was the only special-status plant species (CNPS Rank 4.2; County List D) observed within the survey area but not onsite; one tree occurs within the 100-foot buffer area adjacent to the east portion of the site. In addition, although naturally occurring coast live oaks are not a listed species,




| | | | |
|---|---|---|---|
| 1, arroyo toad | 5, coastal whiptail | 9, orangethroat whiptail | 13, Swainson's hawk |
| 2, Bell's sage sparrow | 6, Dulzura pocket mouse | 10, Rainbow manzanita | 14, western mastiff bat |
| 3, coast horned lizard | 7, least Bell's vireo | 11, San Diego desert woodrat | 15, western pond turtle |
| 4, coastal California gnatcatcher | 8, northwestern San Diego pocket mouse | 12, summer holly | 16, western spadefoot |

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**CNDDB SPECIAL-STATUS SPECIES WITHIN 5 MILES OF THE PROJECT SITE**

Figure 7

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these trees are considered sensitive by the Valley Center Community Plan[2] (County of San Diego 2011). Due to its disturbance, the western portion of the site does not support suitable vegetation associations, soils, or microhabitat conditions for the special-status plant species identified by County PDS in their project scoping letter (December 19, 2015, Valley Center Granger: MPA 14-025). Based on the CNDDB, special-status plant species occurring within a five-mile radius of the site include summer holly (*Cormarostaphulis diversifolia* ssp. *diversifolia*) and Rainbow manzanita (*Arctostaphylos rainbownesis*). Please refer to Appendix C for descriptions of the conservation status, habitat preferences, and rationale regarding the low potential for occurrence for these special-status plant species.

### 1.4.6 Special-Status Wildlife Species

As previously mentioned, recorded locations of potentially-occurring special-status species within 5 miles of the project site based on the CNDDB were mapped and overlaid onto aerial imagery (Figure 7). For purposes of this assessment, special-status wildlife species include wildlife that are: listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS; considered sensitive animals by the CDFW; and/or, are Group 1 or 2 species on the County's Sensitive Animal List in Table 3, Appendix B, of the County's Guidelines (County of San Diego 2010).

The only special-status wildlife species observed flying over the survey area was red-shouldered hawk (*Buteo lineatus*). Based on the CNDDB, several special-status wildlife species occur within a five-mile radius of the site. Please refer to Appendix C for descriptions of the conservation status, habitat preferences, and rationale regarding the low potential for occurrence for these special-status wildlife species.

Protocol surveys for coastal California gnatcatcher (*Polioptila california california*) (CAGN) were performed by Rocks Biological Consulting (Appendix D). The survey methodology followed the U.S. Fish and Wildlife Service presence/absence protocol (1997) and the County MSCP requirements, including three surveys at least one week apart. The protocol surveys were conducted on May 28, 2015, June 11, 2015, and June 18, 2015. During each survey, all suitable CAGN habitats were surveyed. Taped vocalizations were used to elicit a response from CAGN in the areas. No CAGN were detected during the surveys and no mitigation measures are recommended for the Project.

Based on the USFWS Critical Habitat Portal (USFWS 2014b), critical habitat designation for southwestern willow flycatcher (*Empidonax traillii extimus*) is located approximately 2.25 miles northeast of the Project site, and critical habitat designation for arroyo toad (Anaxyrus californicus) is located approximately 3 miles east of the site. None of these federally-listed species are expected to occur within or near the site due to the absence of suitable habitats for these species.

In general, important raptor foraging areas are characterized by habitat types that are both compatible with foraging behavior (e.g., promote appropriate lines of sight, provide unobstructed access to prey, contain adequate perches, etc.) and support an adequate prey base for target raptors with the potential to

[2] Conservation Policy 7 calls for preservation of oaks, sycamores, eucalyptus, olive trees, pines and other individual specimen trees which contribute to the community character and provide wildlife habitat; Conservation Policies 3.c and 4.c state that when impacted, "individual oaks shall be replaced by a ratio approved by" PDS; Conservation Policy 10.b states that a vegetation plan will be submitted and approved by PDS that will revegetate individual oaks that are removed or damaged.

range through the area. Typically, raptor foraging areas of local and regional importance are relatively large in size and are not fragmented or constrained by development or other incompatible land uses. For year-round resident raptors, important foraging areas may be used frequently and repeatedly, and usually occur in close proximity to nest locations and territories. Wintering raptors with the potential to occasionally range through an area may use multiple foraging sites less frequently along a migratory route or wintering location. Due to the presence of ground squirrels and cottontail observed during the surveys, as well as a relatively wide expanse of open disturbed habitat, the site provides foraging habitat for sensitive raptors such as Cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), turkey vulture (*Cathartes aura*), red-shouldered hawk (*Buteo lineatus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus caeruleus*), and prairie falcon (*Falco mexicanus*) which are all County Group 1 listed species. As previously stated, a red-shouldered hawk was observed flying over the site; however, no raptor nests were observed.

In addition, the onsite and offsite trees within the survey area provide suitable nesting, perching and foraging areas for all avian species, especially sensitive raptors, protected under the federal MBTA and State Fish and Game Code. Appendix A lists the common bird species observed. The MBTA protects all common wild birds found in the United States except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs. Further, Section 3503 of the State Fish and Game Code makes it illegal to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Section 3503.5 also protects all birds in the orders *Falconiformes* and *Strigiformes*, birds of prey, such as hawks and owls, and their eggs and nests from any form of take.

### 1.4.7 Habitat Connectivity and Wildlife Corridors

In general, wildlife corridors and linkages are smaller constrained areas of habitat that connect larger areas of habitat which are otherwise separated by rugged terrain, changes in vegetation, or urban development. This allows for an exchange of gene pool between wildlife populations, which increases the genetic viability of otherwise isolated populations. Wildlife corridors are especially important for species with large habitat ranges or seasonal migrations. A corridor is a specific route that is used for the movement and migration of species, and may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of wildlife and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as stepping-stone linkages that are comprised of fragmented archipelago arrangement of habitat over a linear distance. Corridors and linkages will be comprised of land features which accommodate the movement of all sizes of wildlife, including large animals on a regional scale. Their contributing areas will support adequate vegetation cover, providing visual continuity and long lines of sight, so as to encourage the use of the corridor by all types of wildlife. In San Diego County, important corridors/linkages have been identified on the local and regional scale.

There are no designated regionally important wildlife corridors or linkages on or in the immediate vicinity of the property; however, the property is used for local movement of medium and large mammals. Mountain lion (*Felis concolor*) scat and coyote (*Canis latrans*) were observed onsite. The site could receive occasional use by mule deer (*Odocoileius hemionus*). The east-west movement is slightly

constrained by roads on two sides of the property, and adjacent agricultural land uses and human activity associated with rural residential uses.

### Urban/Wildlands Interface and Adjacency Management Issues

An urban/wildlands interface is generally defined as land that presently contains, or will contain as a result of a proposed action, both elements of an urban setting and undeveloped or protected lands. This land is situated within a rural environment and does not interface with urban-level land uses.

## 1.5 Applicable Regulations

### 1.5.1 Federal

### Migratory Bird Treaty Act of 1918

All migratory bird species that are native to the U.S. or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127; USFWS 2004). The MBTA prohibits "take" (kill, harm, harass, capture, etc.) of any migratory bird listed in 50 CFR 10, including their nests, eggs, or products. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many other species.

### Federal Endangered Species Act of 1973

Administered by the USFWS, the federal Endangered Species Act (FESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species, or the habitats upon which they rely, are considered a "take" under the FESA. Section 9(a) of the FESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 4(d), 7, and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. A special rule under Section 4(d) of the FESA authorizes incidental take of certain protected species within subregions that are actively preparing a Natural Communities Conservation Program (NCCP), or are covered by approved NCCPs, which are administered by the states. The term "incidental take" refers to the "taking" of a listed species that is incidental to (and not the purpose of) an otherwise lawful activity.

Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. Federal actions by private, state, or local entities typically consist of activities that involve federal approvals/permits or federal funding. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered species' impacts and issuance of a CWA permit by the U.S. Army Corps of Engineers (USACE) for work in jurisdictional areas or other federal actions.

Section 10(a) allows issuance of permits for "incidental" take of endangered or threatened species with preparation of a Habitat Conservation Plan (HCP). A HCP that demonstrates how the taking would be

minimized and how steps would be taken to ensure the species' survival must be submitted for issuance of Section 10(a) permits.

### 1.5.2 State

#### California Endangered Species Act

The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA establishes a State policy to conserve, protect, restore, and enhance endangered species and their habitats. Under State law, plant and animal species may be formally designated as rare, threatened, or endangered through official listing by the California Fish and Game Commission. Listed species are given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

On private property, endangered plants may also be protected by the Native Plant Protection Act (NPPA of 1977. Threatened plants are protected by CESA, and rare plants are protected by the NPPA. However, CESA authorizes that "Private entities may "take" plant species listed as endangered or threatened under the FESA and CESA through a federal incidental take permit issued pursuant to Section 10 of the FESA, if the CDFW certifies that the incidental take statement or incidental take permit is consistent with CESA." In addition, CEQA requires disclosure of any potential impacts on listed species, and alternatives or mitigation that would reduce those impacts.

#### Sections 3503, 3503.5, and 3800 of the California Fish and Game Code

These sections of the State Fish and Game Code prohibit the take or possession of birds, their nests, or eggs. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." Such a take would also violate Federal law protecting migratory birds.

Incidental take permits are required from the CDFW for projects that may result in the incidental take of species listed by the State of California as endangered, threatened, or candidate species. The permits require that impacts to protected species be minimized to the extent possible and mitigated.

### 1.5.3 County of San Diego

#### Resource Protection Ordinance

Adopted in 1989 and amended in 1991 and 2007, Ordinance No. 9842 protects the County's Environmentally Sensitive Lands (i.e., wetlands, floodplains, steep slopes, sensitive biological habitats, and prehistoric and historic sites) by requiring a Resource Protection Study for certain discretionary projects. Environmentally Sensitive Lands include wetlands/wetland buffers, floodplains, steep slopes, sensitive biological habitats, and significant prehistoric and historic sites as defined by RPO below:

Wetlands. Lands having one or more of the following attributes:

a) At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);

b) The substratum is predominantly undrained hydric soil; or

c) An ephemeral or perennial stream is present, whose substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

The San Diego County RPO states that lands which have wetland attributes solely due to man-made structures (e.g., culverts, ditches, road crossings, or agricultural ponds) shall not be considered RPO resources provided that the lands: (1) have negligible biological function or value as wetlands; (2) are small and geographically isolated from other wetland systems; (3) are not vernal pools; and, (4) do not have substantial or locally important populations of wetland dependent sensitive species.

Wetland Buffers. Lands that provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community. Buffer widths shall be 50 to 200 feet from the edge of the wetland as appropriate based on the above factors.

RPO identifies certain permitted uses and development standards/criteria for the above categories. If the Resource Protection Study identifies the presence of Environmentally Sensitive Lands, one or more of the following actions may be required as a condition of approval for the discretionary permit:

1) Apply open space easements to portions of the project site that contain sensitive lands;

2) Rezone the entire project site through the application of a special area designator for sensitive lands; or

3) Other actions as determined by the decision-making body.

Floodplains. The relatively flat area of low lands adjoining and including the channel of a river, stream watercourse, bay, or other body of water which is subject to inundation by the flood waters of the 100-year frequency flood as shown on floodplain maps approved by the Board of Supervisors.

Steep Slopes. All lands having a slope with natural gradient of 25% or greater and a minimum rise of 50 feet, unless said land has been substantially disturbed by previous legal grading. The minimum rise shall be measured vertically from the toe of slope to the top of slope within the project boundary.

Sensitive Biological Habitats. Lands which support unique vegetation communities or the habitats of rare or endangered species or sub-species of animals or plants as defined by Section 15380 of the CEQA Guidelines (14 Cal. Admin. Code Section 15000 et seq.), including the area which is necessary to support a viable population of any of the above species in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem, or which serves as a functioning wildlife corridor. According to the County's Biological Guidelines, sensitive biological habitats also include populations of sensitive species (e.g., County Group A plants, Group I wildlife species, State- and federally-listed species) and riparian habitat which is associated with the banks and other land adjacent to freshwater bodies, rivers, streams, creeks, estuaries, and other surface-emergent aquifers (such as springs, seeps, and oases).

## Multiple Species Conservation Program

The Project area is within the study are of the draft North County Plan of the MSCP which will serve as a multiple species Habitat Conservation Plan (HCP) pursuant to section 10(a)(1)(B) of the federal Endangered Species Act (ESA), as well as a Natural Community Conservation Plan (NCCP) under the California NCCP Act. The North County Plan has been submitted to the Wildlife Agencies in support of applications for permits and authorizations for incidental take of listed, threatened, or endangered species or other species of concern. The County will be issued an incidental take permit for species that are found to be covered by implementation of the plan. The County, as the take authorization holder, may share the benefits of the authorization by using it to permit public or private projects, referred to as third party beneficiaries that comply with the plan.

The North County Plan area encompasses 294,849 acres in and around the unincorporated communities of Bonsall, De Luz, Fallbrook, Harmony Grove, Rancho Santa Fe, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center. Most of the inland areas are made up of chaparral or oak woodland vegetation. Coastal areas contain more sensitive habitats, such as coastal sage scrub and southern maritime chaparral. There are several large river systems running east-west that contain extensive riparian woodlands and forests, such as the San Luis Rey River, Santa Margarita River, and Escondido Creek.

The County's MSCP includes the following objectives:

- Acknowledge the no-net-loss-of-wetlands standard to satisfy State and federal wetland goals, policies, and standards;
- Include measures to maximize the habitat structural diversity of conserved habitat areas, including conservation of unique habitats and habitat features (e.g., soil types, rock outcrops, drainages, host plants);
- Provide for the conservation of spatially representative (e.g., coastal versus interior) examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high and very high biological value by the MSCP habitat evaluation model;
- Create significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats;
- Provide incentives for development in the least sensitive habitat areas;
- Provide for the conservation of key regional populations of the covered species, and representation of sensitive habitats and their geographic sub-associations in biologically functioning units; and
- Conserve large interconnected blocks of habitat that contribute to the preservation of wide-ranging species such as mule deer, golden eagle, and predators as appropriate. Special emphasis will be placed on conserving adequate foraging habitat near golden eagle nesting sites.

As previously stated, the subject property is not located within a Focused Conservation Area or PAMA, as identified in the draft North County Plan. Therefore, the preserve design goals and criteria for critical Biological Core Resource Areas and linkages/corridors do not apply to the site.

# CHAPTER 2. SPECIAL-STATUS SPECIES

## 2.1 Guidelines for Determination of Significance

*The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*

## 2.2 Analysis of Project Effects

The proposed Project would not result in significant impacts under the following guidelines for the following reasons:

- ***County Threshold 4.1.A.*** **Would the Project impact one or more individuals of a species listed as federally or State endangered or threatened?** No State or federally listed species were observed in the MUP Project Area and would therefore not be impacted by the Project.
- ***County Threshold 4.1.C.*** **Would the Project impact the local long-term survival of a County List C or D plant species, or a County Group II animal species?** No County List C or D plant species or County Group II animal species were observed in the MUP Project Area and would therefore not be impacted by the Project.
- ***County Threshold 4.1.D.*** **Would the Project impact arroyo toad aestivation, foraging or breeding habitat?** The site contains no habitat suitable for the arroyo toad which would therefore not be impacted by the Project.
- ***County Threshold 4.1.G.*** **Would the Project impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more, not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species?** No core wildlife area as defined in the County Guidelines occurs onsite that supports a viable population of a sensitive wildlife species or that supports multiple wildlife species; therefore, the Project would not impact the viability of a core wildlife area.
- ***County Threshold 4.1.I.*** **Would the Project impact burrowing owl habitat?** No western burrowing owl habitat exists onsite; therefore, the Project would not impact this species.
- ***County Threshold 4.1.J.*** **Would the Project impact occupied coastal cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire?** No coastal cactus wren habitat exists onsite; therefore, the Project would not impact this species.

- ***County Threshold 4.1.K.*** **Would the Project impact occupied Hermes copper habitat?** No Hermes copper butterfly habitat exists onsite; therefore, the Project would not impact this species.

## County Threshold 4.1.B. Direct Impacts to Special-Status Species

**Would the Project impact an onsite population of a County List A or B plant species, or a County Group I animal species, or a species listed as a State Species of Special Concern?** In addition to red-shouldered hawk which was observed flying over the site, the following raptors have a potential to nest or forage within the onsite trees, non-native grassland and extensive agricultural land to be permanently removed by the Project, which would be considered a significant direct impact to these potentially-occurring sensitive raptor species (County Group I): Cooper's hawk, golden eagle, ferruginous hawk, turkey vulture, northern harrier, white-tailed kite and prairie falcon. In addition, if Project construction occurs during the general bird nesting season (January 15-August 31), such activities could result in direct "take" of individuals and/or eggs in violation of the MBTA and State Fish and Game Code. Therefore, the Project could result in a significant direct impact to potentially-occurring County Group I nesting raptors and other MBTA-protected nesting birds. Mitigation is required for these potential impacts (see Mitigation Measure Bio-1 below).

## County Threshold 4.1.E. and 4.1.F. Direct Impacts to Raptor Foraging Habitat and Nesting Birds

**Would the Project impact golden eagle habitat?** Although no golden eagles were observed onsite or within 4,000 feet of the site, this species has a potential to nest or forage within the onsite trees to be permanently removed by the Project, which would be considered a significant direct impact to this potentially-occurring sensitive raptor species (County Group I). In addition, if Project construction occurs during the general bird nesting season (January 15-August 31), such activities could result in direct "take" of individuals and/or eggs in violation of the MBTA and State Fish and Game Code. Therefore, the Project could result in a significant direct impact to potentially-occurring golden eagles (County Group I) and other MBTA-protected nesting birds. Mitigation is required for these potential impacts (see Mitigation Measure Bio-1 below).

**Would the Project result in the loss of functional foraging habitat for raptors?** In addition to the potentially-occurring golden eagle addressed above and the red-shouldered hawk which was observed flying over the site, the following raptors have a potential to nest or forage within the onsite trees, non-native grassland and extensive agricultural land to be permanently removed by the Project, which would be considered a significant direct impact to these potentially-occurring sensitive raptor species (County Group I): Cooper's hawk, ferruginous hawk, turkey vulture, northern harrier, white-tailed kite and prairie falcon. In addition, if Project construction occurs during the general bird nesting season (January 15-August 31), such activities could result in direct "take" of individuals and/or eggs in violation of the MBTA and State Fish and Game Code. Therefore, the Project could result in a significant direct impact to potentially-occurring County Group I nesting raptors and other MBTA-protected nesting birds. Mitigation is required for these potential impacts (see Mitigation Measure Bio-1 below).

## County Threshold 4.1.H. Indirect Impacts to Special-Status Species

**Would the Project cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would**

**likely harm sensitive species over the long term?** Sensitive raptors or common nesting bird species could be disturbed by Project construction noise and vibration if these activities occur during the general bird nesting season (January 15-August 31) in the immediate vicinity of active nest(s), such that the disturbance results in nest abandonment and/or failure. Such impacts could result in indirect "take" of individuals and/or eggs in violation of the MBTA and State Fish and Game Code. These potential indirect impacts would be considered significant, and mitigation is required (see Mitigation Measure Bio-1below).

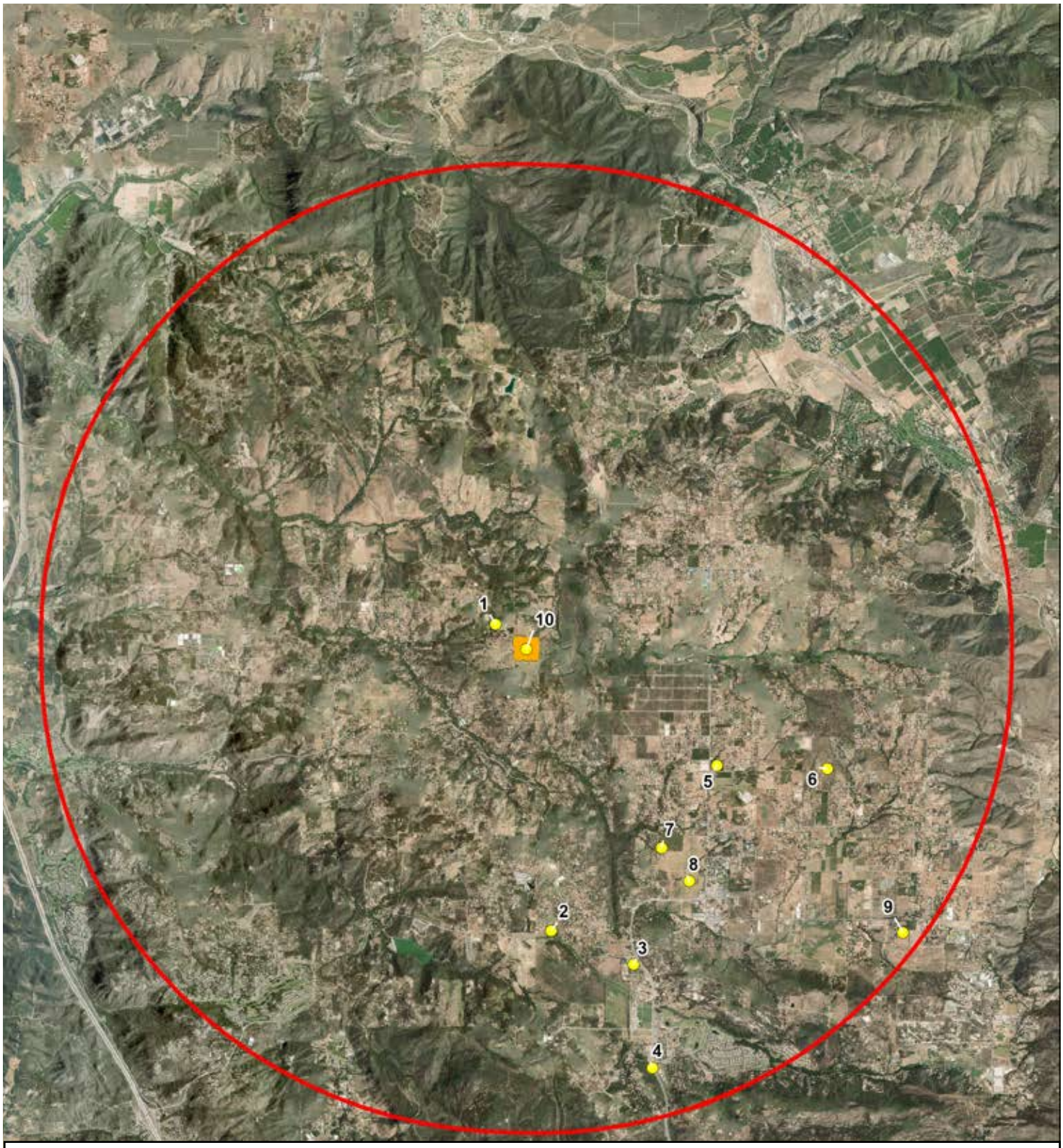
### County Threshold 4.1.L. Direct/Indirect Impacts to Nesting Success of Special-Status Bird Species

**Would the Project impact nesting success of the sensitive bird species listed below through grading, clearing, fire fuel modification, and/or noise-generating activities such as construction?** As concluded in County Threshold 4.1.J above, no coastal cactus wren habitat exists onsite; therefore, the Project would not impact this species. In addition, no suitable habitat exists onsite for the following species; therefore, the Project would not impact these species: least Bell's vireo, southwestern willow flycatcher, and Ridgway's clapper rail. As discussed in Section 1.4.6 above, no CAGN were detected onsite during protocol surveys (Appendix D); therefore, the Project would not impact this species and no mitigation measures are recommended.

As concluded in County Thresholds 4.1.B, 4.1.E, 4.1.F, and 4.1.H above, the Project could result in significant direct and indirect impacts to potentially-occurring County Group I nesting raptors and other MBTA-protected nesting birds. Mitigation is required for these potential impacts (see Mitigation Measure Bio-1 below).

## 2.3 Cumulative Impact Analysis

The Project's potential direct and indirect impacts to sensitive raptors or common nesting bird species as evaluated in Section 2.2 above could contribute to cumulative impacts on a regional basis (Figure 8). These potential impacts would be considered cumulatively considerable, and mitigation is required (see Mitigation Measure Bio-1 below).




1. Honey Bee Ranch Accidental Winery
2. Brook Forest Grading Plans
3. Lilac Plaza MPA
4. Hatfield Place
5. NLP Valley Center Solar
6. Verizon Aguacate Major Use Permit
7. Valley Center Cemetery District MUP
8. Weston Towne Center
9. HTW Tasting & Wine Making
10. Granger Solar (Project)

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Source: SanGIS, Eagle Aerial - 2013

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Granger Solar

**CUMULATIVE PROJECTS MAP**

Figure 8

Figure 8 Cumulative Projects

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## 2.4 Mitigation Measures

Implementation of the following mitigation measure would reduce the project's potential direct, indirect and cumulative impacts to sensitive raptors (e.g., red-shouldered hawk, Cooper's hawk, golden eagle, ferruginous hawk, turkey vulture, northern harrier, white-tailed kite, prairie falcon), and to common nesting birds protected under the MBTA and State Fish and Game Code to less than significant levels:

**Bio-1** **Avian Breeding Season Requirements**. If Project brushing, clearing, grubbing, grading, or construction activities (collectively, "Disturbance Activities") are proposed within 500 feet of nesting raptor habitat and/or 300 feet of migratory bird nesting habitat during the typical bird breeding season (January 15-August 31), then a qualified County approved biologist shall conduct a pre-disturbance survey for active nest(s) within the development area and within 500 feet thereof. If active nest(s) are detected, or considered likely, the following conditions shall be implemented to the satisfaction of the County PDS:

A. No Disturbance Activities shall occur within an appropriate distance from active nest(s) until the young have fledged and are no longer returning to the nest(s). The appropriate buffers from active nest(s) shall be the distance the biologist determines is necessary to avoid the taking, capturing, or killing of any migratory bird, or any part of their nests or eggs. The point in time that the young have fledged from the nest(s) shall be determined by the biologist. Areas restricted from such activities shall be staked or fenced under the supervision of the biologist;

B. No construction activities shall occur within any portion of the site where such activities would result in noise levels exceeding 60 dB(A) hourly average (or the ambient noise level, if it already exceeds this threshold) at the edge of the occupied habitat, unless an analysis is prepared by a qualified acoustician (possessing a current noise engineer license or registration and noise level monitoring experience for the avian species) at least two weeks prior to commencement of construction showing that such noise levels would not exceed these thresholds.

C. At least two weeks prior to commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, temporary walls, etc.) shall be implemented to ensure that construction-related noise levels do not exceed 60 dB(A) hourly average (or the ambient noise level, if it already exceeds this threshold) at the edge of the occupied habitat. Concurrent with the commencement of construction activities and installation of noise attenuation measures, noise monitoring[3] shall be conducted at the edge of the occupied habitat to ensure that noise levels do not exceed 60 dB(A) hourly average (or the ambient noise level, if it already exceeds this threshold). If the noise attenuation techniques

[3] Construction noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average (or the ambient noise level, if it already exceeds 60 dB(A) hourly average) and are avoiding the taking, capturing, or killing of any migratory bird, or any part of their nests or eggs.

implemented are determined by the biologist to be inadequate to achieve the noise thresholds or otherwise prevent the taking, capturing or killing of any migratory bird, their nests or eggs, then the associated construction activities shall cease until such time that either:

i. enhanced attenuation techniques (e.g. higher walls, more walls, relocated walls, limitations on the placement of construction equipment, simultaneous use of loud equipment) are implemented that can achieve the noise threshold (or the no take, capture or kill standard); **OR**

ii. the young have fledged and are no longer returning to the nest(s). The point in time that the young have fledged from the nest(s) shall be determined by the biologist.

The Director of PDS may waive this condition, through written concurrence from USFWS and CDFW, if no nesting migratory birds or raptors are present in the vicinity of the brushing, clearing or grading.

# CHAPTER 3. RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITIES

## 3.1 Guidelines for Determination of Significance

*The project would have a substantial adverse effect on any riparian habitat or another sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service*.

## 3.2 Analysis of Project Effects

The proposed Project would not result in significant impacts under the following guidelines for the following reasons:

- ***County Threshold 4.2.B.*** **Would the Project result in any of the following impacts to or within jurisdictional wetlands and/or riparian habitats as defined by USACE, CDFW and 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?** As described in Section 1.4 above, a soft-bottomed drainage swale with potential jurisdictional features exists adjacent to the southern end of the eastern boundary of the 40.1-acre property. This swale provides negligible biological function or value as wetlands; is small and geographically isolated from other wetland systems; does not contain vernal pools; and does not have substantial or locally important populations of wetland-dependent sensitive species. This drainage swale is located outside the MUP Project area; therefore, no wetland delineation is required and the Project would not result in any of the above impacts to wetlands or riparian habitat.

- ***County Threshold 4.2.C.*** **Would the Project draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels?** The Project would not involve the use of groundwater, which would draw down the water table to the detriment of groundwater-dependent habitat. The source of water for dampening graded areas to reduce fugitive dust generation during earthmoving activities will be the potable water system via nearby fire hydrants.
- ***County Threshold 4.2.E.*** **Does the Project include a wetland buffer adequate to protect the functions and values of existing wetlands?** Because no wetlands or riparian habitat occurs within or near the MUP Project Area and the Project would not result in impacts to wetlands or riparian habitat, as concluded in County Threshold 4.2.B above, wetland/riparian buffers are not necessary.

## County Thresholds 4.2.A and 4.2.D Direct/Indirect Impacts to Sensitive Vegetation Communities

**Would Project-related grading, clearing, construction or other activities temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5 of the County Biology Guidelines, excluding those without a mitigation ratio) on or off the Project site?** The Project's direct impacts to onsite habitats are depicted on Figure 9 and summarized below in Table 2. There are no offsite impacts to biological resources associated with the proposed Project. The permanent loss of the following sensitive habitats would be considered a significant impact: Southern Mixed Chaparral (5.91 acres); Coastal Sage Scrub (10.25 acres); Coast Live Oak Woodland Disturbed (0.05 acre); Flat-topped Buckwheat Scrub (0.87 acre); and both Non-native Grassland (8.38acres) and Extensive Agricultural land (0.56 acre) due to the use of these latter two vegetation communities as potential raptor foraging habitats. Mitigation is required for these direct impacts (see Mitigation Measures Bio-2 through Bio-6, below).

**Would the Project cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term?** The Project would not result in indirect impacts to onsite sensitive SMC and CSS habitats adjacent to the east of the MUP Project Area, as depicted on Figure 8, because no permanent human habitation is proposed that would otherwise introduce the following disturbances and activities into and adjacent to these undisturbed natural habitat areas: increased human access; increased predation or competition from domestic animals, pests or exotic species; and increased noise and nighttime lighting to levels above ambient. In addition, although

proposed grading within the MUP Project Area would alter drainage flows across the MUP Project Area, the altered drainage patterns would retain the primarily west-trending surface flows across the west portion of the property. The current drainage patterns in and adjacent to the east portion of the property (i.e., primarily east-trending surface flows), where the undisturbed SMC and CSS habitats would remain in open space unaffected by the Project, would not be altered due to Project grading. Therefore, these natural areas would not be exposed to additional runoff flows from the MUP Project Area which could otherwise cause erosion, siltation, sedimentation and corresponding habitat damage.

## 3.3 Cumulative Impact Analysis

The Project's direct impacts to sensitive vegetation communities as evaluated in Section 3.2 above could contribute to cumulative impacts on a regional basis (Figure 8). These impacts would be considered cumulatively considerable, and mitigation is required (see Mitigation Measures Bio-2 through Bio-6, below).

## Impact Table

- OR - Ornamental (0.041 Acres)
- **FBS - Flat-topped Buckwheat Scrub (0.873 Acres)**
- CLOW-D - Coast Live Oak Woodland Disturbed (0.048 Acres)
- **CSS - Coastal Sage Scrub (10.372 Acres)**
- DEV - Developed (0.119 Acres)
- DIST - Disturbed (0.181 Acres)
- NNG - Non-native Grassland (7.339 Acres)
- Agriculture - Fallow (0.558 Acres)
- SMC - Southern Mixed Chaparral (5.914 Acres)

## Legend

- Impact Area (See Impact Table)
- Property Boundary

### All Vegetation Within 100' Buffer

- OR - Ornamental (0.041 Acres)
- **FBS - Flat-topped Buckwheat Scrub (1.338 Acres)**
- CLOW - Coast Live Oak Woodland (0.635 Acres)
- CLOW-D - Coast Live Oak Woodland Disturbed (0.516 Acres)
- **CSS - Coastal Sage Scrub (14.089 Acres)**
- DEV - Developed (3.867 Acres)
- DIST - Disturbed (2.264 Acres)
- NG - Native Grassland (0.103 Acres)
- NNG - Non-native Grassland (7.339 Acres)
- Agriculture - Active (0.360 Acres)
- Agriculture - Fallow (3.735 Acres)
- SMC - Southern Mixed Chaparral (15.642 Acres)
- SMC-RO - Southern Mixed Chaparral with Rock Outcrops (1.417 Acres)
- QuEn - Quercus Engelmanii (2 Trees)
- QuAg - Quercus Agrifolia (150 Trees)

Michael Baker INTERNATIONAL

0 100 200 400 Feet

Source: Eagle Aerial - 2013, SanGIS

145597BIOFigures.indd

Granger Solar

**BIOLOGICAL IMPACTS**

Figure 9

Figure 9 Biological Impacts

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**Table 2 Project Impacts to Sensitive Vegetation Communities**

| Vegetation Community (Holland/Oberbauer Code) | Existing within Survey Area[1] (Acres) | Onsite Impacts (Acres) | Mitigation Ratio | Total Mitigation Required (Acres) |
|---|---|---|---|---|
| Southern Mixed Chaparral (37121) | 17.06 | 5.91 | 0.5:1 | 2.96 |
| Coastal Sage Scrub (32000) | 13.96 | 10.25 | 1:1 | 10.25 |
| Coast Live Oak Woodland (71100) | 1.15 | 0.05 | 3:1 | 0.15 |
| Flat-topped Buckwheat Scrub (32800) | 1.34 | 0.87 | 1:1 | 0.87 |
| Native Grassland (42100) | 0.10 | 0 | 3:1 | 0 |
| Non-native Grassland (42200) | 8.38 | 8.38 | 0.5:1 | 4.19 |
| Extensive Agriculture (18310) | 4.10 | 0.56 | 0.5:1 | 0.28 |
| Disturbed (11300) | 2.42 | 0.31 | N/A | 0 |
| Developed (12000) | 3.87 | 0.12 | N/A | 0 |
| **TOTAL** | **52.38** | **26.45** | **--** | **18.70** |

**[1]Survey Area includes entire 40.1-acre subject property and 100 feet beyond its boundaries.**

## 3.4 Mitigation Measures

Implementation of mitigation measures Bio-2 through Bio-6, below, would reduce the Project's direct and cumulative impacts to sensitive vegetation communities (Southern Mixed Chaparral; Coastal Sage Scrub; Coast Live Oak Woodland Disturbed; Flat-topped Buckwheat Scrub; Non-native Grassland; and Extensive Agricultural land) to less than significant levels.

**Bio-2** Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 4.19 acres of non-native grassland and 0.28 acre of extensive agriculture or habitat with comparable quality and type to the impacted onsite potential raptor foraging habitat has been preserved offsite within North County, to compensate for impacts to 8.38 acres of non-native grassland and 0.56 acre of extensive agriculture at a 0.5:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 4.47 acres:

(1) Purchase of habitat credits of comparable quality and type to the impacted onsite non-native grassland and extensive agriculture habitats in a County approved mitigation bank. Evidence of purchase shall include (a) a copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased; (b) if not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved

land; (c) to ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land; and (d) an accounting of the status of the mitigation bank. This shall include the total amounts of credits available at the bank, the amount required by this project and the amount remaining after utilization by this project.

(2) Purchase, conservation, and habitat management of other land with habitat of comparable quality and type at a location approved by the County, including (a) a Resource Management Plan (RMP to be submitted and approved by the Director of the Department of Planning and Land Use and the Wildlife Agencies; and (b) an open space easement over the acquired habitat to be dedicated to the County of San Diego.

**Bio-3** Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 2.96 acres of southern mixed chaparral or habitat with comparable quality and type to the impacted onsite southern mixed chaparral habitat has been preserved offsite within North County, to compensate for impacts to 5.91 acres of southern mixed chaparral at a 0.5:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 2.96 acres:

(1) Purchase of habitat credits of comparable quality and type to the impacted onsite southern mixed chaparral habitat in a County approved mitigation bank. Evidence of purchase shall include (a) a copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased; (b) if not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land; (c) to ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land; and (d) an accounting of the status of the mitigation bank. This shall include the total amounts of credits available at the bank, the amount required by this project and the amount remaining after utilization by this project.

(2) Purchase, conservation, and habitat management of other land with habitat of comparable quality and type at a location approved by the County, including (a) a Resource Management Plan (RMP to be submitted and approved by the Director of the Department of Planning and Land Use and the Wildlife Agencies; and (b) an open space easement over the acquired habitat to be dedicated to the County of San Diego.

**Bio-4** Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 10.25 acres of coastal sage scrub or habitat with comparable quality and type to the impacted onsite coastal sage scrub habitat has been preserved offsite within North County, to compensate for impacts to 10.25 acres of coastal sage scrub at a 1:1 mitigation ratio. The offsite mitigation area shall be in a location

approved by the County, and shall consist of one or a combination of the following methods to total 10.25 acres:

(1) Purchase of habitat credits of comparable quality and type to the impacted onsite coastal sage scrub habitat in a County approved mitigation bank. Evidence of purchase shall include (a) a copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased; (b) if not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land; (c) to ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land; and (d) an accounting of the status of the mitigation bank. This shall include the total amounts of credits available at the bank, the amount required by this project and the amount remaining after utilization by this project.

(2) Purchase, conservation, and habitat management of other land with habitat of comparable quality and type at a location approved by the County, including (a) a Resource Management Plan (RMP to be submitted and approved by the Director of the Department of Planning and Land Use and the Wildlife Agencies; and (b) an open space easement over the acquired habitat to be dedicated to the County of San Diego.

**Bio-5** Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 0.15 acre of coast live oak woodland or habitat with comparable quality and type to the impacted onsite coast live oak woodland habitat has been preserved offsite within North County, to compensate for impacts to 0.05 acre of coast live oak woodland at a 3:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 0.15 acre:

(1) Purchase of habitat credits of comparable quality and type to the impacted onsite coast live oak woodland habitat in a County approved mitigation bank. Evidence of purchase shall include (a) a copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased; (b) if not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land; (c) to ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land; and (d) an accounting of the status of the mitigation bank. This shall include the total amounts of credits available at the bank, the amount required by this project and the amount remaining after utilization by this project.

(2) Purchase, conservation, and habitat management of other land with habitat of comparable quality and type at a location approved by the County, including (a) a Resource Management Plan (RMP to be submitted and approved by the Director of the Department of Planning and Land Use and the Wildlife Agencies; and (b) an open space easement over the acquired habitat to be dedicated to the County of San Diego.

**Bio-6** Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 0.87 acre of flat-topped buckwheat scrub or habitat with comparable quality and type to the impacted onsite flat-topped buckwheat scrub habitat has been preserved offsite within North County, to compensate for impacts to 0.87 acre of flat-topped buckwheat scrub at a 1:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 0.87 acre:

(1) Purchase of habitat credits of comparable quality and type to the impacted onsite flat-topped buckwheat scrub habitat in a County approved mitigation bank. Evidence of purchase shall include (a) a copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased; (b) if not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land; (c) to ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land; and (d) an accounting of the status of the mitigation bank. This shall include the total amounts of credits available at the bank, the amount required by this project and the amount remaining after utilization by this project.

(2) Purchase, conservation, and habitat management of other land with habitat of comparable quality and type at a location approved by the County, including (a) a Resource Management Plan (RMP to be submitted and approved by the Director of the Department of Planning and Land Use and the Wildlife Agencies; and (b) an open space easement over the acquired habitat to be dedicated to the County of San Diego.

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# CHAPTER 4. WILDLIFE MOVEMENT AND NURSERY SITES

## 4.1 Guidelines for Determination of Significance

*The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*

## 4.2 Analysis of Project Effects, Mitigation Measures and Design Considerations

The proposed Project would not result in significant direct, indirect, and/or cumulative impacts under the following guidelines for the following reasons:

- ***County Threshold 4.4.A.*** **Would the Project impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction?** The proposed Project would not impede wildlife access to foraging areas within the onsite sensitive SMC and CSS habitats adjacent to the east of the MUP Project Area, as depicted on Figure 9, because no permanent human habitation is proposed that would otherwise introduce the following disturbances and activities into and adjacent to these undisturbed natural habitat areas: increased human access; increased predation or competition from domestic animals, pests or exotic species; and increased noise and nighttime lighting to levels above ambient. In addition, there is no evidence that breeding habitat occurs within the onsite sensitive SMC and CSS habitats that would be retained in open space adjacent to the east of the MUP Project Area, or in any other offsite natural areas adjacent to the property. Further, the site is not located between a potential nursery site and important foraging resource.
- ***County Threshold 4.4.B.*** **Would the Project substantially interfere with connectivity between blocks of habitat, or potentially block or substantially interfere with a local or regional wildlife corridor or linkage?** The Project site does not support habitats that could facilitate wildlife movements for large mammals on a regional scale; is surrounded by roads and residential and agricultural uses; and does not have direct connectivity to adjacent lands of higher quality habitats that extend offsite undisturbed over large distances. Due to these obstructions to wildlife movements around the site and the lack of surrounding blocks of natural areas, no core areas of habitat suitable for use by resident populations of wildlife, as either wildlife corridors or parts of a larger regional linkage, exist on or adjacent to the site. Further, the draft North County MSCP

Subarea Plan does not recognize or designate any locally or regionally important wildlife corridors or linkages on or in the immediate vicinity of the site. Therefore, the Project would not block or substantially interfere with a regional wildlife corridor or linkage.

- ***County Threshold 4.4.C.*** **Would the Project create artificial wildlife corridors that do not follow natural movement patterns?** Due to the nature of the proposed Project and disturbed conditions onsite, the Project would not create artificial wildlife corridors that do not follow natural movement patterns.
- ***County Threshold 4.4.D.*** **Would the Project increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels likely to affect the behavior of the animals?** As noted in County Threshold 4.4.A above, there is no evidence of breeding habitat adjacent to the site or any wildlife corridors or linkages onsite or in the immediate vicinity. Therefore, the Project would not increase noise and/or nighttime lighting within a wildlife corridor or linkage at levels that could affect animal behavior or wildlife movement.
- ***County Threshold 4.4.E.*** **Does the Project maintain an adequate width for an existing wildlife corridor or linkage and/or would it further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path?** As noted in County Threshold 4.4.A above, there is no evidence that any wildlife corridors or linkages are identified onsite or in the immediate vicinity. Therefore, the Project would not affect the widths of existing wildlife corridors or linkages nor constrain an already narrow corridor that may occur in the region.
- ***County Threshold 4.4.F.*** **Does the Project maintain an adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkages?** As noted in County Threshold 4.4.A above, there is no evidence that any wildlife corridors or linkages are identified onsite or in the immediate vicinity. Therefore, the Project would not affect the visual continuity of existing wildlife corridors or linkages that may occur in the region.

## 4.3 Cumulative Impact Analysis

The Project would not result in direct and indirect impacts to wildlife movements and nursery sites, as evaluated in Section 4.2 above, which could contribute to cumulative impacts on a regional basis (Figure 8).

## 4.4 Mitigation Measures

Because the Project would not result in significant direct, indirect, and cumulatively considerable impacts to wildlife movements and nursery sites, no mitigation is required.

# CHAPTER 5. LOCAL POLICIES, ORDINANCES, AND ADOPTED PLANS

## 5.1 Guidelines for Determination of Significance

*The project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.*

## 5.2 Analysis of Project Effects, Mitigation Measures and Design Considerations

The proposed Project would not result in significant direct, indirect, and/or cumulative impacts under the following guidelines for the following reasons:

- ***County Thresholds 4.5.A and 4.5.D.*** **For lands outside of the MSCP, would the Project impact DCSS in excess of the County's 5% habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Guidelines; and would it mitigate any DCSS loss in accordance with Section 4.3 of these Guidelines?** The Project's proposed impacts to 10.25 acres of DCSS vegetation would not exceed the County's remaining amount of the 5% DCSS habitat loss threshold which is at 1,765.8 acres based on the total cumulative DCSS losses within the MSCP Subarea Plan as of February 6, 2013 (9/11/15 telecom with Beth Ehsan, San Diego County MSCP).

  ***County Threshold 4.5.C.*** **Would the Project impact any amount of wetlands or sensitive habitat lands as outlined in the San Diego County RPO?** As evaluated in Section 3.2 above, the MUP Project Area does not contain wetlands as defined under the San Diego County RPO; therefore, the Project would not impact RPO wetlands. Because the MUP Project Area does not contain RPO wetlands, the RPO wetland buffer requirements do not apply to the proposed Project. In addition, the Project site does not contain floodplains as defined under the San Diego County RPO. As evaluated in Chapter 3 above, implementation of Mitigation Measures Bio-2 through Bio-6 would reduce the Project's direct and cumulative impacts to the following sensitive habitat lands, as defined under the San Diego County RPO, to less than significant levels: Southern Mixed Chaparral; Coastal Sage Scrub; Coast Live Oak Woodland Disturbed; Flat-topped Buckwheat Scrub; Non-native Grassland; and Extensive Agricultural land.

- ***County Thresholds 4.5.B and 4.5.E.*** **Would the Project preclude or prevent the preparation of the subregional NCCP; or conflict with the goals and requirements as outlined in any applicable HCP, Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort?** The Project would not prevent the draft North County MSCP Subarea Plan from meeting its conservation goals and objectives. Therefore, the Project would not conflict with any adopted HCP, NCCP, or other approved local, regional, or State HCP. In addition, there is no applicable HMP, SAMP, Watershed Plan, or similar regional planning effort to which the Project must conform.
- ***County Threshold 4.5.F.*** **For lands within the MSCP, would the Project impact a Biological Resources Core Area (BRCA) as defined in the San Diego County BMO?** The Project would not impact a BRCA as defined in the County's BMO.
- ***County Thresholds 4.5.G. and 4.5.H.*** **Would the Project preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines; and would it disrupt existing movement corridors and/or habitat linkages as defined by the San Diego County BMO?** As noted in Section 4.2 above, there is no evidence of breeding habitat adjacent to the site or any wildlife corridors or linkages onsite or in the immediate vicinity. In addition, based on the extent of preserved habitats further east and south of the site, it is assumed these areas would provide ample habitat for species to exist within stable populations in the region.
- ***County Thresholds 4.5.I and 4.5.J.*** **Would the Project impact MSCP narrow endemic species and/or core populations of narrow endemics; and would it reduce the likelihood of survival and recovery of listed species in the wild?** As indicated in Appendix C, there are only two MSCP narrow endemic species recorded by CNDDB within a five-mile radius of the Project site, arroyo toad and least Bell's vireo; however, there is no potential for these species to occur as the site does not support these habitats. Therefore, the Project would not impact MSCP narrow endemic species or core populations of narrow endemics, nor would it reduce the likelihood of survival and recovery of listed species because no State or federally listed species were observed in the MUP Project Area, as stated under County Threshold 4.1.A in Section 2.2 above.

## County Thresholds 4.5.K and 4.5.L Direct Impacts to Migratory Birds and Eagles

**Would the Project result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs pursuant to the MBTA; and would it result in the take of eagles, eagle eggs or any part of an eagle pursuant to the Bald and Golden Eagle Protection Act?** As evaluated in Section 2.4 above, the Project could result in the removal or disturbance of nesting habitat during the general bird nesting season (January 15-August 31), and therefore, could result in impacts to nesting birds (including sensitive raptors), in violation of the MBTA, State Fish and Game Code, and Bald and Golden Eagle Protection Act. These potential impacts would be considered significant, and mitigation is required (see Mitigation Measure Bio-2 in Section 2.4).

## 5.3 Cumulative Impact Analysis

The Project would not result in significant conflicts with local policies, ordinances and adopted plans protecting biological resources, as evaluated in Section 5.2 above, which could contribute to cumulative impacts on a regional basis (Figure 8).

## 5.4 Mitigation Measures

Implementation of Mitigation Measure Bio-2 would reduce the Project's potential direct, indirect and cumulative impacts to nesting birds (including sensitive raptors) protected under the MBTA, State Fish and Game Code, and Bald and Golden Eagle Protection Act to less than significant levels.

# CHAPTER 6. SUMMARY OF PROJECT IMPACTS AND MITIGATION

## 6.1 Special-Status Species

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In addition to red-shouldered hawk which was observed flying over the site, the following raptors have a potential to nest or forage within the onsite trees, non-native grassland and extensive agricultural land to be permanently removed by the Project, which would be considered a significant direct impact to these potentially-occurring ground- and tree-nesting sensitive raptor species (County Group I) if Project construction occurs during the general bird nesting season (January 15-August 31): Cooper's hawk, golden eagle, ferruginous hawk, turkey vulture, northern harrier, white-tailed kite and prairie falcon. In addition, sensitive raptors or common nesting bird species could be disturbed by Project construction noise and vibration if these activities occur during the general bird nesting season (January 15-August 31) in the immediate vicinity of active nest(s), such that the disturbance results in nest abandonment and/or failure. Such impacts could result in direct and indirect "take" of individuals and/or eggs in violation of the MBTA and State Fish and Game Code. Further, these potential direct and indirect impacts to sensitive raptors and/or common nesting bird species could contribute to cumulative impacts on a regional basis. Therefore, the Project could result in significant direct, indirect and cumulative impacts to potentially-occurring County Group I nesting raptors and other MBTA-protected nesting birds.

## 6.2 Sensitive Natural Communities

The Project's direct impacts to the following onsite sensitive habitats would be considered a significant impact: Southern Mixed Chaparral (5.91 acres); Coastal Sage Scrub (10.25 acres); Coast Live Oak Woodland Disturbed (0.05 acre); Flat-topped Buckwheat Scrub (0.87 acre); and both Non-native Grassland (8.38 acres) and Extensive Agricultural land (0.56 acre) due to the use of these latter two vegetation communities as potential raptor foraging habitats. Further, these direct impacts to sensitive vegetation communities could contribute to cumulative impacts on a regional basis.

Table 3 below provides a summary of the proposed mitigation measures for the significant Project impacts described above, and the level of significance after mitigation.

## Table 3 Summary of Mitigation Measures

| Proposed Mitigation | Mitigation Measure | County Guideline | Level of Significance after Mitigation |
|---|---|---|---|
| If Project brushing, clearing, grubbing, grading, or construction activities (collectively, "Disturbance Activities") are proposed within 500 feet of nesting raptor habitat and/or 300 feet of migratory bird nesting habitat during the typical bird breeding season (January 15-August 31), then a qualified County approved biologist shall conduct a pre-disturbance survey for active nest(s) within the development area and within 500 feet thereof. If active nest(s) are detected, or considered likely, the following conditions shall be implemented to the satisfaction of the County PDS:<br><br>A. No Disturbance Activities shall occur within an appropriate distance from active nest(s) until the young have fledged and are no longer returning to the nest(s). The appropriate buffers from active nest(s) shall be the distance the biologist determines is necessary to avoid the taking, capturing, or killing of any migratory bird, or any part of their nests or eggs. The point in time that the young have fledged from the nest(s) shall be determined by the biologist. Areas restricted from such activities shall be staked or fenced under the supervision of the biologist;<br><br>B. No construction activities shall occur within any portion of the site where such activities would result in noise levels exceeding 60 dB(A) hourly average (or the ambient noise level, if it already exceeds this threshold) at the edge of the occupied habitat, unless an analysis is prepared by a qualified acoustician (possessing a current noise engineer license or registration and noise level monitoring experience for the avian species) at least two weeks prior to commencement of construction showing that such noise levels would not exceed these thresholds.<br><br>C. At least two weeks prior to commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, temporary walls, etc.) shall be implemented to ensure that construction-related noise levels do not exceed 60 dB(A) hourly average (or the ambient noise level, if it already exceeds this threshold) at the edge of the occupied habitat. Concurrent with the commencement of construction activities and installation of noise attenuation measures, noise monitoring4 shall be conducted at the | Bio-1 | 4.1.F | Less than Significant |

[4] Construction noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average (or the

| Proposed Mitigation | Mitigation Measure | County Guideline | Level of Significance after Mitigation |
|---|---|---|---|
| edge of the occupied habitat to ensure that noise levels do not exceed 60 dB(A) hourly average (or the ambient noise level, if it already exceeds this threshold). If the noise attenuation techniques implemented are determined by the biologist to be inadequate to achieve the noise thresholds or otherwise prevent the taking, capturing or killing of any migratory bird, their nests or eggs, then the associated construction activities shall cease until such time that either:<br>i. enhanced attenuation techniques (e.g. higher walls, more walls, relocated walls, limitations on the placement of construction equipment, simultaneous use of loud equipment) are implemented that can achieve the noise threshold (or the no take, capture or kill standard); OR<br>ii. the young have fledged and are no longer returning to the nest(s). The point in time that the young have fledged from the nest(s) shall be determined by the biologist.<br>The Director of PDS may waive this condition, through written concurrence from USFWS and CDFW, if no nesting migratory birds or raptors are present in the vicinity of the brushing, clearing or grading. | | | |
| Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 10.25 acres of coastal sage scrub or habitat with comparable quality and type to the impacted onsite coastal sage scrub have been preserved offsite within North County, to compensate for impacts to 10.25 acres of coastal sage scrub at a 1:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 10.25 acres:<br>(1) Purchase of habitat credits of comparable quality and type to the impacted onsite coastal sage scrub habitat in a County approved mitigation bank. Evidence of purchase shall include (a) a copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased; (b) if not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land; (c) to ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land; and (d) an accounting of the status of the mitigation bank. This shall include the total amounts of credits available at the bank, the amount required by this project and the | Bio-4 | 4.2.A<br>4.2.D | Less than Significant |

ambient noise level, if it already exceeds 60 dB(A) hourly average) and are avoiding the taking, capturing, or killing of any migratory bird, or any part of their nests or eggs.

| | | | |
|---|---|---|---|
| amount remaining after utilization by this project.<br>(2) Purchase, conservation, and habitat management of other land with habitat of comparable quality and type at a location approved by the County, including (a) a Resource Management Plan (RMP to be submitted and approved by the Director of the Department of Planning and Land Use and the Wildlife Agencies; and (b) an open space easement over the acquired habitat to be dedicated to the County of San Diego. | | | |
| Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 0.15 acre of coast live oak woodland or habitat with comparable quality and type to the impacted coastal sage scrub has been preserved offsite within North County, to compensate for impacts to 0.05 acre of coast live oak woodland at a 3:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 0.15 acre:<br>(1) Purchase of habitat credits of comparable quality and type to the impacted onsite coast live oak woodland in a County approved mitigation bank. Evidence of purchase shall include (a) a copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased; (b) if not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land; (c) to ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land; and (d) an accounting of the status of the mitigation bank. This shall include the total amounts of credits available at the bank, the amount required by this project and the amount remaining after utilization by this project.<br>(2) Purchase, conservation, and habitat management of other land with habitat of comparable quality and type at a location approved by the County, including (a) a Resource Management Plan (RMP to be submitted and approved by the Director of the Department of Planning and Land Use and the Wildlife Agencies; and (b) an open space easement over the acquired habitat to be dedicated to the County of San Diego. | Bio-5 | 4.2.A<br>4.2.d | Less than Significant |
| Prior to approval of grading or improvement plans, or prior to use and reliance on the Major Use Permit, whichever occurs first, the applicant shall demonstrate to the satisfaction of the County Director of Planning and Land Use, evidence that 0.87 acre of flat-topped buckwheat scrub or habitat with comparable quality and type to the impacted onsite flat-topped buckwheat scrub has been preserved offsite within North County, to compensate for impacts to 0.87 acre flat-topped buckwheat at a 1:1 mitigation ratio. The offsite mitigation area shall be in a location approved by the County, and shall consist of one or a combination of the following methods to total 0.87 acre:<br>(1) Purchase of habitat credits of comparable quality and type to the impacted onsite flat-topped buckwheat scrub in a County approved mitigation bank. Evidence of purchase shall include (a) a copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased; (b) if not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land; (c) to ensure the land will be protected in perpetuity, evidence must be provided that a dedicated | Bio-6 | 4.2.A<br>4.2.D | Less than Significant |

| | | | |
|---|---|---|---|
| conservation easement or similar land constraint has been placed over the mitigation land; and (d) an accounting of the status of the mitigation bank. This shall include the total amounts of credits available at the bank, the amount required by this project and the amount remaining after utilization by this project.<br>(2) Purchase, conservation, and habitat management of other land with habitat of comparable quality and type at a location approved by the County, including (a) a Resource Management Plan (RMP to be submitted and approved by the Director of the Department of Planning and Land Use and the Wildlife Agencies; and (b) an open space easement over the acquired habitat to be dedicated to the County of San Diego. | | | |

# CHAPTER 7. REFERENCES

California Department of Fish and Wildlife (CDFW). 2008. Complete List of Amphibian, Reptile, Bird and Mammal Species in California. September.

California Department of Fish and Wildlife (CDFW). 2011. Special Animals. California Department of Fish and Game, Natural Diversity Database. Sacramento, California. January.

California Department of Fish and Wildlife (CDFW). 2014. Biogeographic Data Branch, California Natural Diversity Database (CNDDB), RareFind Version 5. Accessed April 17, 2014.

California Native Plant Society (CNPS). 2014. The Online Inventory of Rare and Endangered Plants (8th Edition). Accessed May 14-15, 2014. Available online at http://www.rareplants.cnps.org/

County of San Diego. 2010. Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources. Fourth Revision. September 15, 2010. Land Use and Environmental Group. Department of Planning and Land Use. Department of Public Works. Available online at http://www.sdcounty.ca.gov/dplu/docs/Biological_Guidelines.pdf

Google Earth. 2014. Google Earth 5.0. Accessed April 16, 2014. Available online at http://earth.google.com/

Jepson On-Line Interchange for California Floristics. 2014. Information provided by the participants of the University and Jepson Herbaria, U.C. Berkeley. Accessed May 14, 2014. Available online at http://ucjeps.berkeley.edu/interchange.html

Lightner, J. 2011. San Diego County Native Plants. San Diego, California: San Diego Flora.

Oberbauer, T., M.Kelly, and J.Buegge. 2008. Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California" prepared by Robert F. Holland, Ph.D. for State of California, The Resources Agency, Department of Fish and Game (October 1986). March 2008. Available online at http://www.sdcounty.ca.gov/dplu/docs/Veg_Comm_SDCounty_2008.pdf

Peterson, Roger Tory. 2010. Peterson Field Guide to Birds of Western North America. Fourth Edition. Houghton Mifflin Harcourt Publishing Company. Boston-New York.

San Diego Natural History Museum (SDNHM). 2014. San Diego County Plant Atlas Project. Accessed May 28, 2014. Available online at http://www.sdplantatlas.org/(S(gn2sqn45kw1fmc45trphjz55))/index.aspx

U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2014. Soil Survey, Web Soil Survey. Accessed April 21, 2014. Available online at http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

U.S. Fish and Wildlife Service (USFWS). 2014a. Species Reports. Accessed May 30, 2014. Available online at http://ecos.fws.gov/tess_public

U.S. Fish and Wildlife Service (USFWS). 2014b. Critical Habitat Portal. Accessed May 21, 2014. Available online at http://criticalhabitat.fws.gov

U.S. Geological Survey (USGS). 1997. Spring Valley, California 7.5 Minute Series (Topographic) Map.

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# Appendix A Plant and Wildlife Species Observed

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# Plant Species Observed

| Scientific Name | Common Name | Habitat Observed Within [1] |
|---|---|---|
| **Agavaceae** | **Agave Family** | |
| *Hesperoyucca whipplei* | chaparral yucca | CSS, SMC |
| *Yucca schiddigera* | Mojave yucca | CSS, SMC |
| **Aizoaceae** | **Fig-Marigold Family** | |
| **Carpobrotus* spp. | iceplant | CBS, CSS-D, DIS |
| **Anacardiaceae** | **Sumac or Cashew Family** | |
| *Malosma laurina* | laurel sumac | CSS, DIS, SMC, RUD/OC |
| *Rhus integrifolia* | lemonadeberry | CLOW, CSS, SMC |
| *Rhus ovata* | sugar bush | CSS, SMC |
| **Schinus molle* | Peruvian pepper tree | ORN |
| *Toxicodendron diversilobum* | poison oak | CLOW, CSS |
| **Apiaceae** | **Carrot Family** | |
| **Foenicularium vulgare* | fennel | CSS-D, DIS |
| **Apocynaceae** | **Dogbane Family** | |
| *Asclepias fascicularis* | narrow-leaf milkweed | CBS, CSS, CSS-D |
| **Arecaceae** | **Palm Family** | |
| **Washingtonia robusta* | Mexican fan palm | AGR, DIS, RUD/OC |
| **Asphodelaceae** | **Asphodel Family** | |
| **Asphodelus fistulosus* | onion weed | AGR, CSS-D, DIS, RUD/OC |
| **Asteraceae** | **Sunflower Family** | |
| *Acourtia microcephala* | sacapellote | CSS, CSS-D, DIS, RUD/OC |
| *Ambrosia psilostachya* | ragweed | NNG |
| *Artemisia californica* | coastal sagebrush | CBS, CSS, SMC |
| *Artemisia dracunculus* | tarragon | CSS, NNG |

| Scientific Name | Common Name | Habitat Observed Within [1] |
|---|---|---|
| *Baccharis salicifolia* ssp. *salicifolia* | mulefat | CSS-D |
| *Baccharis sarothroides* | broom baccharis | CSS, SMC |
| **Carduus pycnocephalus* | Italian thistle | AGR, DIS, RUD/OC |
| *Chaenactis glabriuscula* var. *glabriuscula* | yellow pincushion | CSS |
| **Centaurea melitensis* | tocalote | NNG, RUD/OC |
| **Centaurea solstitialis* | yellow star-thistle | CSS-D, NNG, RUD/OC |
| *Centromadia pungens* sspp. *laevis* | common tarplant | CSS, NNG |
| **Conyza canadensis* | horseweed | AGR, DIS, RUD/OC |
| *Corethrogyne filaginifolia* | California aster | CSS, CSS-D, DIS, SMC |
| **Cynara cardunculus* | cardoon | AGR, DIS, RUD/OC |
| **Dittrichia graveolens* | stinkwort | AGR, DIS, RUD/OC |
| *Eriophyllum confertifolium* var. *confertifolium* | golden yarrow | CSS, DIS, NNG, SMC |
| *Hazardia squarrosa* var. *squarrosa* | sawtooth goldenbush | CSS, CSS-D, SMC |
| *Heterotheca grandiflora* | telegraph weed | AGR, DIS, NNG, RUD/OC |
| *Lessingia glandulifera* var. *glandulifera* | valley lessingia | CSS |
| **Picris echoides* | bristly ox-tongue | AGR, DIS, RUD/OC |
| *Pseudognaphalium californicum* | California everlasting | CLOW, CSS, DIS, NNG, SMC |
| **Silybum marianum* | milk thistle | AGR, DIS, RUD/OC |
| **Sonchus asper* ssp. *asper* | prickly sow thistle | AGR, DIS, RUD/OC |
| *Stephanomeria diegensis* | San Diego wreath plant | AGR, DIS, RUD/OC |
| *Wyethia ovata* | mule's ears | AGR, DIS, RUD/OC |
| *Xanthium strumarium* | common cocklebur | AGR, DIS, RUD/OC |
| **Boraginaceae** | **Borage Family** | |
| *Cryptantha angustifolia* | forget-me-not | AGR, CSS, DIS, NNG |
| *Phacelia cicutaria* var. *hispida* | caterpillar phacelia | CLOW, CSS, SMC |
| *Phacelia distans* | wild heliotrope | CLOW, SMC |
| *Phacelia ramosissima* | branching phacelia | CLOW, SMC |
| *Pholistoma racemosum* | San Diego fiesta flower | SMC |
| **Brassicaceae** | **Mustard Family** | |
| **Brassica nigra* | black mustard | AGR, CSS-D, DIS, NNG, RUD/OC |
| **Hirschfeldia incana* | short-pod mustard | AGR, CSS-D, DIS, NNG, RUD/OC |
| **Raphanus sativus* | wild radish | AGR, CSS-D, DIS, NNG, RUD/OC |
| **Cactaceae** | **Cactus Family** | |
| *Opuntia littoralis* | coast prickly pear | CSS, SMC |

| Scientific Name | Common Name | Habitat Observed Within [1] |
|---|---|---|
| **Caryophyllaceae** | **Pink Family** | |
| *Silene laciniata* ssp. *laciniata* | Indian pink | SMC |
| **Chenopodiaceae** | **Goosefoot Family** | |
| *Salsola australis* | Russian thistle | CSS-D, DIS, RUD/OC |
| **Convolvulaceae** | **Morning-glory Family** | |
| *Calystegia longipes* | morning-glory | CLOW, CSS, DIS, SMC |
| *Cuscuta californica* var. *californica* | dodder | SMC |
| **Cucurbitaceae** | **Gourd Family** | |
| *Marah macrocarpus* | wild cucumber | CLOW, SMC |
| **Ericaceae** | **Heath Family** | |
| *Xylococcus bicolor* | mission manzanita | SMC |
| **Euphorbiaceae** | **Spurge Family** | |
| *Croton setigerus* | dove weed | NNG |
| *Chamaesyce polycarpa* | rattlesnake spurge | DIS, RUD/OC |
| **Euphorbia peplus* | petty spurge | DIS, RUD/OC |
| **Fabaceae** | **Pea Family** | |
| *Acmispon americanus* var. *americanus* | Spanish lotus | CSS-D, DIS, NNG |
| *Acmispon glaber* var. *glaber* | deer weed | AGR, CSS, CSS-D, DIS, NNG, SMC |
| *Lupinus excubitus* var. *hallii* | bush lupine | DIS, SMC |
| **Fagaceae** | **Oak Family** | |
| *Quercus agrifolia* var. *agrifolia* | coast live oak | CLOW, RUD/OC, SMC |
| *Quercus agrifolia* var. *oxyadenia* | interior live oak | CSS, SMC |
| *Quercus engelmannii* | Engelmann oak | SMC |
| **Gentianaceae** | **Gentian Family** | |
| *Zeltnera venusta* | canchalagua | SMC |

| Scientific Name | Common Name | Habitat Observed Within [1] |
|---|---|---|
| **Geraniaceae** | **Geranium Family** | |
| **Erodium botrys* | storksbill | AGR, CSS-D, DIS, NNG, RUD/OC |
| **Erodium cicutarium* | red-stem filaree | AGR, CSS-D, DIS, NNG, RUD/OC |
| **Erodium moshatum* | white-stem filaree | AGR, CSS-D, DIS, NNG, RUD/OC |
| **Juglandaceae** | **Pecan Family** | |
| **Carya illinoinensis* | pecan | DIS |
| **Lamiaceae** | **Mint Family** | |
| **Lamium amplexicaule* | common henbit | DIS |
| **Marrubium vulgare* | horehound | DIS |
| *Salvia apiana* | white sage | SMC |
| *Salvia mellifera* | black sage | CBS, CSS, SMC |
| **Lauraceae** | **Laurel Family** | |
| *Umbellularia californica* | California bay laurel | DIS, RUD/OC |
| **Lilaceae** | **Lily Family** | |
| *Calochortus weedii var. weedii* | weed mariposa lily | SMC |
| **Moraceae** | **Mulberry Family** | |
| **Ficus* spp. | ficus | DIS, RUD/OC |
| **Myrtaceae** | **Myrtle Family** | |
| **Eucalyptus* spp. | gum tree | DIS, RUD/OC |
| **Nyctaginaceae** | **Four O'Clock Family** | |
| *Mirabilis laevis* var. *crassifolia* | wishbone bush | DIS |
| **Onagraceae** | **Evening-Primrose Family** | |
| *Camissoniopsis hirtella* | field sun cup | CSS, SMC |
| **Phrymaceae** | **Lopseed Family** | |
| *Mimulus aurantiacus* var. *aurantiacus* | bush monkeyflower | CSS, SMC |
| *Mimulus aurantiacus* var. *puniceus* | bush monkeyflower | CSS, SMC |

| Scientific Name | Common Name | Habitat Observed Within [1] |
|---|---|---|
| **Plantaginaceae** | **Plantain Family** | |
| *Antirrhinum nuttallianum* ssp. *nuttallianum* | Nuttall snapdragon | CSS, SMC |
| *Keckiella antirrhinoides* var. *antirrhinoides* | yellow bush-penstemon | CBS, CLOW, CSS, SMC |
| *Limonium perezii* | Canary Island sea-lavender | CSS-D, DIS, NNG |
| *Plantago erecta* | California plantain | DIS, NNG, RUD/OC |
| **Poaceae** | **Grass Family** | |
| **Avena barbata* | wild oat | CSS-D, DIS, RUD/OC |
| **Bromus* spp. | bromes | CSS-D, DIS, RUD/OC |
| **Festuca myuros* | rat-tail fescue | CSS-D, DIS, RUD/OC |
| **Festuca perennis* | rye grass | CSS-D, DIS, RUD/OC |
| **Hordeum* spp. | barleys | CSS-D, DIS, RUD/OC |
| **Melica imperfecta* | coast melic | CSS-D, DIS, RUD/OC |
| *Nassella pulchra* | purple needlegrass | CSS, NG, NNG, SMC |
| **Polypogon monspeliensis* | rabbitfoot | CSS-D, DIS, RUD/OC |
| **Schismus barbatus* | Mediterranean schismus | CSS-D, DIS, RUD/OC |
| **Polemoniaceae** | **Phlox Family** | |
| *Eriastrum filifolium* | thread-leaf woolly-star | CSS, SMC |
| *Navarretia hamate* sspp. *hamata* | skunkweed | CSS-D, DIS, RUD/OC |
| **Polygonaceae** | **Buckwheat Family** | |
| *Eriogonum fasciculatum* var. *fasciculatum* | California buckwheat | AGR, CBS, CSS, SMC |
| *Chorizanthe fimbriata* var. *fimbriata* | fringed spineflower | DIS |
| **Rumex conglomeratus* | curly dock | DIS |
| **Primulaceae** | **Primrose Family** | |
| **Anagallis arvensis* | scarlet pimpernel | DIS, RUD/OC |
| **Pteridaceae** | **Brake Family** | |
| *Pellaea mucronata* var. *mucronata* | bird’s foot fern | SMC |
| **Rhamnaceae** | **Buckthorn Family** | |
| *Ceanothus crassifolius* var. *crassifolius* | hoary-leaf ceanothus | SMC |
| *Ceanothus cuneatus* var. *cuneatus* | buck brush | SMC |

| Scientific Name | Common Name | Habitat Observed Within [1] |
|---|---|---|
| *Ceanothus verrucosus* | wart-stem ceanothus | SMC |
| *Ceanothus tomentosus* | Ramona lilac | SMC |
| *Frangula californica* sspp. *californica* | California coffee berry | SMC |
| **Rosaceae** | **Rose Family** | |
| *Adenostoma fasciculatum* var. *fasciculatum* | chamise | SMC |
| *Cercocarpus betuloides* var. *betuloides* | mountain mahogany | SMC |
| *Prunus ilicifolia* ssp. *ilicifolia* | holly-leaf cherry | CLOW, SMC |
| **Scrophulariaceae** | **Figwort Family** | |
| *Scrophularia californica* | California bee plant | CSS, SMC |
| **Solanaceae** | **Nightshade Family** | |
| *Datura wrightii* | jimson weed | CBS, CSS-D |
| **Nicotiana glauca* | tree tobacco | DIS, RUD/OC |
| **Tamaricaceae** | **Salt Cedar Family** | |
| **Tamarix parviflora* | tamarisk | CSS-D |

[1] Habitat codes are as follows:

| | | |
|---|---|---|
| AGR | = | Disturbed Inactive Agricultural Field |
| CBS | = | California (Flat-topped) Buckwheat Scrub |
| CLOW | = | Coast Live Oak Woodland |
| CSS | = | Coastal Sage Scrub |
| CSS-D | = | Disturbed Coastal Sage Scrub |
| DIS | = | Disturbed Habitat |
| NG | = | Native Grassland |
| NNG | = | Non-native Grassland |
| ORN | = | Ornamental |
| RUD/OC | = | Open CLOW |
| SMC | = | Southern Mixed Chaparral |

*Non-native or ornamental species

# Animal Species Observed

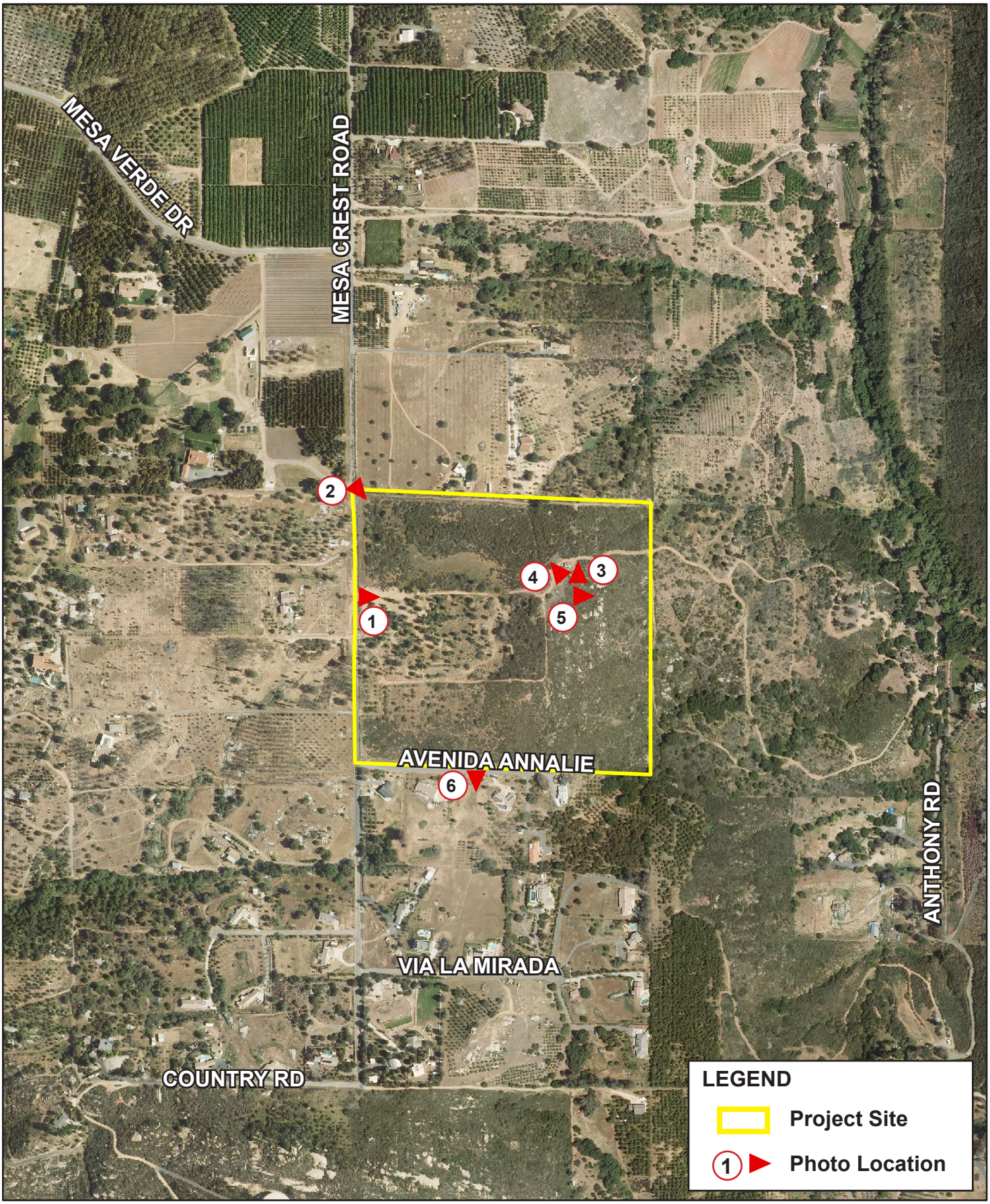
| Scientific Name | Common Name | Habitat Observed Within [1] |
|---|---|---|
| **REPTILES** | | |
| **Iguanidae** | **Iguanids** | |
| *Uta stansburiana* | side-blotched lizard | DIS |
| *Phrynosoma coronatum blainvillii* | San Diego horned lizard | (scat) |
| **BIRDS** | | |
| *Melanerpes formicivorus* | acorn woodpecker | CLOW, RUD/OC |
| *Corvus brachyrhynchos* | American crow | DIS, RUD/OC |
| *Calypte anna* | Anna's hummingbird | CSS, RUD/OC, SMC |
| *Myiarchus cinerascens* | ash-throated flycatcher | CLOW, RUD/OC |
| *Thryomanes bewickii* | Bewick's wren | CBS, CSS, SMC |
| *Polioptila caerulea* | blue-gray gnatcatcher | RUD/OC |
| *Psaltriparus minimus* | bushtit | CBS, CSS, RUD/OC, SMC |
| *Callipepla californica* | California quail | SMC |
| *Toxostoma redivivum* | California thrasher | CSS, SMC |
| *Melozone crissalis* | California towhee | CSS, SMC |
| *Tyrannus vociferans* | Cassin's kingbird | RUD/OC, SMC |
| *Petrochelidon pyrrhonota* | cliff swallow | overhead |
| *Corvus corax* | common raven | DIS, RUD/OC |
| *Streptopelia decaocto* | Eurasian collared dove | DIS, RUD/OC |
| *Ardea alba* | great egret | overhead |
| *Geococcyx californianus* | greater roadrunner | CSS, SMC |
| *Icterus cucullatus* | hooded oriole | RUD/OC, SMC |
| *Carpodacus mexicanus* | house finch | AGR, CBS, CSS, DIS, NNG, RUD/OC, SMC |
| *Spinus psaltria* | lesser goldfinch | AGR, CBS, CSS, DIS, NNG, RUD/OC, SMC |
| *Anas platyrhynchos* | mallard | overhead |
| *Zenaida macroura* | mourning dove | AGR, CBS, CSS, DIS, NNG, RUD/OC, SMC |
| *Colaptes auratus* | northern flicker | CLOW, RUD/OC |
| *Mimus polyglottos* | northern mockingbird | AGR, CBS, CSS, DIS, NNG, RUD/OC, SMC |
| *Picoides nuttallii* | Nuttall's woodpecker | CLOW, RUD/OC |
| *Baeolophus inoratus* | oak titmouse | CLOW, RUD/OC |
| *Phainopepla nitens* | phainopepla | RUD/OC |
| *Buteo lineatus* | red-shouldered hawk | overhead |
| *Buteo jamaicensis* | red-tailed hawk | overhead |

| Scientific Name | Common Name | Habitat Observed Within [1] |
|---|---|---|
| *Pipilo maculatus* | spotted towhee | AGR, CBS, CSS, DIS, NNG, RUD/OC, SMC |
| *Aphelocoma californica* | western scrub-jay | AGR, CBS, CSS, DIS, NNG, RUD/OC, SMC |
| *Meleagris gallopavo* | wild turkey | SMC |
| *Chamaea fasciata* | wrentit | CBS, CSS, SMC |
| **MAMMALS** | | |
| **Canidae** | **Canids** | |
| *Canis latrans* | coyote | SMC |
| **Felidae** | **Felids** | |
| *Lynx rufus* | bobcat | (scat) |
| **Leporidae** | **Hares and Rabbits** | |
| *Sylvilagus audubonii* | desert cottontail | CSS |
| **Sciuridae** | **Squirrels** | |
| *Otospermophilus beecheyi* | California ground squirrel | DIS, RUD/OC |

[1] Habitat codes are as follows:

| | | |
|---|---|---|
| AGR | = | Disturbed Inactive Agricultural Field |
| CBS | = | California (Flat-topped) Buckwheat Scrub |
| CLOW | = | Coast Live Oak Woodland |
| CSS | = | Coastal Sage Scrub |
| CSS-D | = | Disturbed Coastal Sage Scrub |
| DIS | = | Disturbed Habitat |
| NG | = | Native Grassland |
| NNG | = | Non-native Grassland |
| ORN | = | Ornamental |

# Appendix B Photographs




Michael Baker INTERNATIONAL

0 125 250 500 Feet

Granger Solar

## APPENDIX B: SITE PHOTOS

145597BIO Appendix B.indd

Photo 1: View looking east from existing gated Project entrance along Mesa Crest Road. Representative views of SMC intermixed with NNG to the left (NW corner of site) and individual coast live oaks scattered among disturbed (remnant) SMC to the right (central portion of site).

Photo 2: View looking east/southeast from northwestern property boundary along Mesa Crest Road. Representative view of flat-topped (California) buckwheat scrub in NW corner of site.

Photo 3: View looking north/northwest from near the existing abandoned storage shed. Representative views of disturbed CSS to the left (around the shed), undisturbed CSS in the center (upper elevation), and SMC to the right (lower elevation).

Photo 4: View looking northwest from near the existing abandoned storage shed. Representative views of ornamental peppertree to the left, disturbed dirt pathways in the foreground, and disturbed CSS intergrading with flat-topped (California) buckwheat scrub to the right.

Photo 5: View looking east from near the existing onsite abandoned storage shed. Representative view of high quality, dense SMC in the east portion of the site.

Photo 6: Representative views of good quality CSS in the south portion of the site.






Photos 7 - 12: Representative disturbances in the Disturbed-DCSS areas.







Photos 13 - 19: Representative disturbances in the Ruderal/Open CLOW area.




Photos 20 - 23: Representative disturbances in the California Buckwheat Scrub areas.



Photos 24 - 26: Representative disturbances in the Non-Native Grassland areas.






Photos 27 - 32: Representative Disturbed areas.

Photos 33 - 35: Representative Disturbed areas.

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# Appendix C Potentially-Occurring Special-Status Plant and Wildlife Species

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| ***Scientific Name*** **Common Name** | **Status** | | | | **Habitat Description** | **Considered in Impact Analysis** | **Rationale** |
|---|---|---|---|---|---|---|---|
| | **Federal** | **State** | **CNPS** | **County List** | | | |
| **PLANTS** | | | | | | | |
| *Arctostaphylos rainbowensis* Rainbow manzanita | ~ | S2 | 1B.1 | A | Chaparral | No | High potential to occur in the SMC, but not observed; nearest recorded occurrence is 0.5 mile to the northeast (Figure 7). |
| *Brodiaea orcuttii* Orcutt's brodiaea | ~ | ~ | 1B.1 | A | Clay soils in closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools, 30-1,692 m | No | No potential to occur as the site does not support these soils and habitats. |
| *Chorizanthe leptotheca* Peninsular spine flower | ~ | ~ | 4.2 | D | CSS, chaparral | No | High potential to occur in the SMC, but not observed. |
| *Cormarostaphylis diversifolia* ssp. *Diversifolia* summer holly | -- | S2 | 1B.2 | A | Chaparral, cismontane woodland | No | High potential to occur in the SMC, but not observed; nearest recorded occurrence is 3.75 miles to the south (Figure 7). |
| *Harpagonella palmeri* Palmer's grappling hook | ~ | ~ | 4.2 | D | Chaparral, grasslands, clay soils | No | High potential to occur in SMC, but not observed. |
| *Horkelia truncata* Ramona horkelia | ~ | S2 | 1B.3 | A | Chamise chaparral, cismontane, woodland/clay. | No | High potential to occur in the SMC, but not observed. |
| *Monardella hypoleuca lanata* felt-leaved rock mint | ~ | S1 | 1B.2 | A | Chaparral, cismontane, woodland. Typically occurs beneath mature stands of chamise in xeric situations. | No | High potential to occur in the SMC, but not observed. |
| *Nolina cismontana* chaparral beargrass | ~ | S2 | 1B.2 | A | Chaparral, coastal scrub/sandstone or gabbro | No | High potential to occur in the SMC, but not observed. |
| *Piperia leptopetala* narrow-petaled rein orchid | ~ | ~ | 4.3 | D | Woodlands, conifer forests. | No | No potential to occur as the site does not support these habitats. |

| ***Scientific Name*** **Common Name** | **Status** | | | | **Habitat Description** | **Considered in Impact Analysis** | **Rationale** |
|---|---|---|---|---|---|---|---|
| | **Federal** | **State** | **CNPS** | **County List** | | | |
| *Polygala cornuta fishiae* Fish's milkwort | ~ | S3 | 4.3 | D | Chaparral and cismontane woodland with coast live oaks. | No | High potential to occur in SMC, but not observed. |
| *Satureja chandleri* San Miguel savory | | | | A | Gabbro and metavolcanic soils in interior foothills. | No | No potential to occur as the site does not support these soils. |
| *Packera ganderi* Gander's butterweed | ~ | CR | 1B.2 | A | Chaparral, decomposed gabbro soil. | No | No potential to occur as the site does not support these soils. |
| *Tetracoccus dioicus* Parry's tetracoccus | ~ | S2 | 1B.2 | A | Chaparral, coastal scrub. Stony, decomposed gabbro soil. Chamise chaparral, with moderately dense canopy cover. | No | Moderate potential to occur in the SMC, but not observed. |
| **ANIMALS** | | | | | | | |
| *Accipiter cooperi* Cooper's hawk | ~ | ~ | N/A | I | Open areas in woodlands and residential areas; breeds in extensive forests. | **Yes** | High potential to occur as the site supports these areas and trees to nest in, but not observed; nearest recorded occurrence is 1.1 miles to the west (Figure 7). |
| *Accipiter striatus* sharp-shinned hawk | ~ | SSC | N/A | I | Woodland areas, including wooded areas within urban settings. | No | No potential to occur as the site does not support these habitats. |
| *Agelaius tricolor* tri-colored blackbird | ~ | SSC | N/A | I | Seasonal wetlands, freshwater marshes, alkali flats, native grasslands, riparian forests, and oak savannas. | No | No potential to occur as the site does not support these habitats. |
| *Aimophila ruficeps canenscens* rufous-crowned sparrow | ~ | SSC | N/A | I | Open and rocky coastal sage scrub and other open habitat types. | No | High potential to occur as the site supports this habitat, but not observed. |
| *Ammodramus savannarum* grasshopper sparrow | ~ | SSC | N/A | I | Dense native grasslands with a mix of grasses, forbs and scattered shrubs on rolling hills, lowland plains, valleys, lower hillsides. | No | No potential to occur as the site does not support these habitats, topographic features. |

| ***Scientific Name*** **Common Name** | **Status** | | | | **Habitat Description** | **Considered in Impact Analysis** | **Rationale** |
|---|---|---|---|---|---|---|---|
| | **Federal** | **State** | **CNPS** | **County List** | | | |
| *Amphispiza belli belli* Bell's sage sparrow | ~ | SSC | N/A | I | Stands of chaparral and sage scrub. | No | High potential to occur as the site supports this habitat, but not observed; nearest recorded occurrence is 4 miles to the southwest (Figure 7). |
| *Anniella pulchra pulchra* silvery legless lizard | ~ | SSC | N/A | I | Sandy, loose, loamy soils with high moisture content under sparse vegetation | No | No potential to occur as the site does not support moist soil conditions. |
| *Antrozous pallidus* pallid bat | ~ | SSC | N/A | I | Arid regions with rocky outcroppings and open, sparsely vegetated grasslands near water; day roosts in attics, shutters or crevices; night roosts in the open, but with foliage nearby; hibernation roosts in buildings, caves, or cracks in rocks. | No | No potential to occur as the site does not support these habitats, structures. |
| *Aspidoscelis tigris stejnegeri* coastal western whiptail | ~ | ~ | N/A | II | Found in deserts and semiarid areas with sparse vegetation and open areas, also found in woodlands and riparian areas. | No | No potential to occur as the site does not support these habitats, topographic features. |
| *Aquilla chrysaetos* golden eagle | ~ | FPS | N/A | I | Open areas in mountains, foothills, plains, deserts. | **Yes** | High potential to occur as the site supports open areas and trees to nest in, but not observed. |
| *Bassariscus astutus* ringtail | ~ | ~ | N/A | II | Variety of habitats as semi-arid oak forests, pinyon pine, or juniper woodland, and also inhabit montane conifer forests, chaparral, desert, dry tropical habitats and rocky or cliff areas. | No | No potential to occur as the site does not support these habitats. |
| *Bufo californicus* arroyo toad | FE | SSC | N/A | I (NE) | Washes, arroyos, sandy riverbanks, riparian areas with willows, sycamores, oaks, cottonwoods, extremely specialized habitat needs, including exposed sandy streamsides with stable terraces for burrowing, with scattered vegetation for shelter, and areas of quiet water or pools free of predatory fishes with sandy or gravel bottoms without silt for | No | No potential to occur as the site does not support these habitats. |

| ***Scientific Name*** **Common Name** | **Status** | | | | **Habitat Description** | **Considered in Impact Analysis** | **Rationale** |
|---|---|---|---|---|---|---|---|
| | **Federal** | **State** | **CNPS** | **County List** | | | |
| | | | | | breeding. | | |
| *Buteo lineatus* red-shouldered hawk | ~ | ~ | N/A | I | Riparian woodland, oak woodland, orchards, eucalyptus groves, or other areas with tall trees. | **Yes** | Observed in flight overhead. |
| *Buteo swainsoni* Swainson's hawk | ~ | ST | N/A | I | Nests in stands with few trees in juniper-sage flats, riparian areas and in oak savanna. Forages in grassland, or cultivated field areas supporting rodent populations. | No | No potential to occur as the site does not support these habitats, topographic features |
| *Cathartes aura* turkey vulture | ~ | ~ | N/A | I | Wide variety of habitats. | **Yes** | High potential to occur as the site supports open areas and trees to nest in, but not observed. |
| *Chaetodipus californicus femoralis* Dulzura pocket mouse | ~ | SSC | N/A | II | Grass/chaparral edges in chaparral, coastal sage scrub, grasslands. | No | High potential to occur as the site supports this habitat, but not observed; nearest recorded occurrence is 3 miles to the southwest (Figure 7). |
| *Chaetodipus fallax fallax* northwestern San Diego pocket mouse | ~ | SSC | N/A | II | Sandy, herbaceous areas with rocks or coarse gravel in chaparral, coastal sage scrub, grasslands. | No | No potential to occur as the site does not support these habitats, topographic features. |
| *Charina trivirgata roseofusca* coastal rosy boa | ~ | ~ | N/A | II | Concealed beneath rocks and in crevices to escape the elements and natural predators; granite outcroppings are the most common geologic association. | No | No potential to occur as the site does not support these habitats, topographic features. |
| *Circus cyaneus hudsonius* northern harrier | ~ | SSC | N/A | I | Marshes, fields, farms, prairies. | No | No potential to occur as the site does not support these habitats. |
| *Clemmys marmorata pallida* southwestern pond turtle | ~ | SSC | N/A | I | Inhabits deep pools in permanent or nearly permanent bodies of water below 6,000 ft (1829 m) with basking sites. | No | No potential to occur as the site does not support water bodies. |
| *Cnemidophorus hyperythrus* orange-throated whiptail | ~ | SSC | N/A | II | Chaparral, coastal sage scrub, 0-1,040 m. | No | High potential to occur as the site supports this habitat, but not observed; nearest recorded occurrence is 2.5 miles to the southwest (Figure 7). |

| ***Scientific Name*** **Common Name** | **Status** | | | | **Habitat Description** | **Considered in Impact Analysis** | **Rationale** |
|---|---|---|---|---|---|---|---|
| | **Federal** | **State** | **CNPS** | **County List** | | | |
| *Coleonyx variegatus abbottii* San Diego banded gecko | ~ | ~ | N/A | I | Rocky areas in coastal sage scrub, chaparral in coastal foothills, 150-900 m. | No | No potential to occur as the site does not support these habitats, topographic features. |
| *Corynorhinus townsendii* Townsend's big-eared bat | FE | SSC | N/A | II | Montane forests mainly in the humid coastal area of the Pacific Northwest; roosting sites most commonly in caves, cliffs, and rock ledges but have been found in abandoned mines and other man-made structures; abandoned buildings are usually used only during summer, while caves and abandoned mines are preferred in winter; 457-2,743 m. | No | No potential to occur as the site does not support these habitats, structures. |
| *Crotalus ruber ruber* northern red diamond rattlesnake | ~ | SSC | N/A | II | Rocks, rodent burrows and dense vegetation in chaparral, woodlands, grasslands, desert areas. | No | Low potential to occur as the site does support rodent burrows; nearest recorded occurrence is 1.2 miles to the south (Figure 7) |
| *Danaus plexippus* monarch butterfly | ~ | ~ | N/A | II | Many open habitats including fields, meadows, weedy areas, marshes, and roadsides. | No | High potential to occur as the site supports open, weedy areas, but not observed. |
| *Diadophis punctatus similis* San Diego ringneck snake | ~ | ~ | N/A | II | Prefers moist habitats, including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, woodlands. | No | No potential to occur as the site does not support these habitats, topographic features. |
| *Dipodomys stephensi* Stephen's kangaroo rat | FE | ST | N/A | I | Annual grassland and coastal sage scrub with sparse shrub cover, commonly in association with *Eriogonum fasciculatum, Artemisia californica*, and *Erodium cicutarium*. Typical habitat includes sparsely vegetated areas (perennial cover less than 30%) with loose, friable, well-drained soil (generally at least 0.5 m deep) and flat or gently rolling terrain. This species may recolonize abandoned agricultural land. | No | High potential to occur as the site supports these habitats, soils, but not observed. |

| ***Scientific Name*** **Common Name** | **Status** | | | | **Habitat Description** | **Considered in Impact Analysis** | **Rationale** |
|---|---|---|---|---|---|---|---|
| | **Federal** | **State** | **CNPS** | **County List** | | | |
| *Elanus caeruleus* Black-winged kite | ~ | ~ | N/A | I | Hovers over open grasslands. | **Yes** | High potential to occur as the site supports open areas and trees to nest in, but not observed. |
| *Eremophila alpestris actis* horned lark | ~ | SSC | N/A | II | Occurs in short grass prairie, open fallow grain fields, and alkali flats in coastal regions from Sonoma to San Diego and east to valley foothills. | No | No potential to occur as the site does not support these habitats, topographic features. |
| *Eumops perotis californicus* greater western mastiff bat | ~ | SSC | N/A | II | Variety of habitats, including desert scrub, chaparral, oak woodland, ponderosa pine belt and high elevation meadows of mixed conifer forests, significant rock features offering suitable roosting habitat. | No | No potential to occur as the site does not support these habitats, rock features. |
| *Felis concolor* Mountain lion | ~ | ~ | N/A | II | Broad range of habitats, in all forest types, as well as lowland and montane desert. | **Yes** | High potential to occur as the site supports this habitat, but not observed. |
| *Lanius ludovicianus* loggerhead shrike | ~ | SSC | N/A | I | Open fields and scrubby habitats with scattered trees. | No | Moderate potential to occur as the site supports these habitats and trees to nest in, but not observed. |
| *Larus californicus* California gull (non-breeding) | ~ | ~ | N/A | II | Ocean, lakes | No | No potential to occur. |
| *Lepus californicus bennettii* San Diego black-tailed jackrabbit | ~ | SSC | N/A | II | Open shrub | No | High potential to occur as the site supports open shrub habitats, but not observed. |
| *Myotis ciliolabrum* western small-footed myotis | ~ | ~ | N/A | II | Roosts alone or in small groups in rock crevices, mines, caves, or buildings, and even occasionally uses in an abandoned swallow's nest as a roosting site. | No | Moderate potential to occur as the site supports these habitats, rock features, structure, but not observed. |

| ***Scientific Name*** **Common Name** | **Status** | | | | **Habitat Description** | **Considered in Impact Analysis** | **Rationale** |
|---|---|---|---|---|---|---|---|
| | **Federal** | **State** | **CNPS** | **County List** | | | |
| *Myotis evotis* long-eared myotis | ~ | ~ | N/A | II | Wide range of habitats, but is most commonly found in mixed coniferous forests, from humid coastal areas to montane forests; other places which function as day roosts are abandoned buildings, cracks in the ground, caves, mines, and loose bark on living and dead trees. | No | No potential to occur as the site does not support these habitats. |
| *Myotis thysanodes* fringed myotis | ~ | SSC | N/A | II | Variety of habitats from desert-scrub to fir-pine associations. Oak and pinyon woodlands appear to be the most commonly used vegetative associations. Roost sites may be in caves, mines, and buildings. | No | No potential to occur as the site does not support these habitats. |
| *Myotis Volans* long-legged myotis | ~ | ~ | N/A | II | Forested regions, establish roosts in trees, rock crevices, fissures in stream banks, and buildings. Caves and mines are not used in the day. | No | No potential to occur as the site does not support these habitats and water features. |
| *Myotis yumanensis* Yuma myotis | ~ | ~ | N/A | II | Variety of habitats, ranging from juniper and riparian woodlands to desert regions near rivers, streams, ponds, lakes, when not near water over which to forage, they roost in caves, attics, buildings, mines, underneath bridges, and similar structures | No | No potential to occur as the site does not support these habitats. |
| *Neotoma lepida intermedia* San Diego desert woodrat | ~ | ~ | N/A | II | Moderate to dense canopies preferred, particularly abundant in rock outcrops and rocky cliffs and slopes. | No | High potential to occur as the site supports this habitat, but not observed; nearest recorded occurrence is 3 miles to the southwest (Figure 7). |
| *Nyctinomops macrotis* big free-tailed bat | ~ | SSC | N/A | II | Arid regions with rocky outcroppings and open, sparsely vegetated grasslands near water; day roosts in attics, shutters or crevices; night roosts in the open, but with foliage nearby; hibernation roosts in buildings, caves, or cracks in rocks | No | No potential to occur as the site does not support these habitats. |

| ***Scientific Name*** **Common Name** | **Status** | | | | **Habitat Description** | **Considered in Impact Analysis** | **Rationale** |
|---|---|---|---|---|---|---|---|
| | **Federal** | **State** | **CNPS** | **County List** | | | |
| *Nyctinomops femorosaccus* pocketed free-tailed bat | ~ | SSC | N/A | II | Semi-arid deserts; roosts in caves, tunnels, mines, rock crevices, under the roof tiles of buildings; usually found in large colonies. | No | No potential to occur as the site does not support these habitats. |
| *Odocoileus hemionus* southern mule deer | ~ | ~ | N/A | II | Wide variety of habitats. | No | Moderate potential to occur, but not observed. |
| *Onychomys torridus ramona* southern grasshopper mouse | ~ | SSC | N/A | II | Variety of low, open, semi-open scrub habitats including coastal sage scrub, mixed chaparral, low sagebrush, riparian scrub, and annual grassland with scattered shrubs in mesas and valleys in the coastal region. | No | High potential to occur as the site supports these habitats, topographic features, but not observed. |
| *Perognathus longimembris brevinasus* Los Angeles little pocket mouse | ~ | SSC | N/A | II | Lower elevation grassland, alluvial sage scrub, and coastal sage scrub. | No | Moderate potential to occur, but not observed. |
| *Phrynosoma coronatum blainvillii* San Diego horned lizard | ~ | SSC | N/A | II | Wide variety of habitats, open areas for sunning, scattered low bushes for cover, patches of loose soil for burial, abundant supply of ants and other insects. | No | High potential to occur as the site supports dense scrub cover to promote hiding, but not observed; nearest recorded occurrence is 1 mile to the west (Figure 7). |
| *Polioptila californica* California gnatcatcher | FT | SSC | N/A | I | Occurs in coastal sage scrub below 2,500' from Ventura to Baja California. | **Yes** | Low potential to occur as the site supports suitable habitat; however, protocol surveys did not detect this species onsite. |

| ***Scientific Name*** **Common Name** | **Status** | | | | **Habitat Description** | **Considered in Impact Analysis** | **Rationale** |
|---|---|---|---|---|---|---|---|
| | **Federal** | **State** | **CNPS** | **County List** | | | |
| *Salvadora hexalepis virgultea* coast patch-nosed snake | ~ | SSC | N/A | II | Larger streambed and riparian habitat areas, oak woodland. | No | No potential to occur as the site does not support these habitats. |
| *Spea hammondii* western spadefoot toad | ~ | SSC | N/A | II | Dry hillsides, rocky areas near streams in grassland, chaparral, pinion-juniper woodland, juniper-sage woodland, pine-oak woodland, pine forests. | No | No potential to occur as the site does not support these habitats. |
| *Taxidea taxus* American badger | ~ | SSC | N/A | II | Open shrub, forest, herbaceous habitats; preys on burrowing rodents. | No | Low potential to occur due to lack of suitable habitats and constant disturbances from surrounding urban uses, although site supports rodent burrows (food source). |
| *Vireo belii pusillus* Least Bell's vireo | FE | SE | N/A | I (NE) | Unlike during the breeding season, they are not limited in winter to willow-dominated riparian areas, but occupy a variety of habitats including mesquite scrub within arroyos, palm groves, and hedgerows bordering agricultural and residential areas. | No | No potential to occur as the site does not support these habitats. |
| NE = Narrow Endemic (County of San Diego MSCP Subarea Plan) | | | | | | | |

Source: CalFlora (2014); CNPS (2014); CDFW 2014; Jepson (2014); SDNHM (2014)

| Federal Status | State Status | CNPS Rare Plant Rank |
|---|---|---|
| **FE** = Listed as endangered under the federal Endangered Species Act (FESA)<br><br>**FT** = Listed as threatened under the FESA | **SE** = Listed as endangered under the California Endangered Species Act (CESA)<br><br>**CR** = Species identified as rare by CDFW<br><br>**SSC** = Species of Special Concern<br><br>**FPS =** Fully Protected Species<br><br>**WL** = Watch List<br><br>**ST –** Listed as threatened under California Endangered Species Act (CESA) | **1A** = Plants presumed extirpated in California and either rare or extinct elsewhere.<br><br>**1B** = Plant species that are rare, threatened, or endangered in California and elsewhere.<br><br>**2A** = Plants presumed extirpated in California, but more common elsewhere.<br><br>**2B** = Plant species that are rare, threatened, or endangered in California, but more common elsewhere.<br><br>**3** = Plant species about which more information is needed (Review List), and which lack the necessary information for assignment to one of the other ranks or for rejection.<br><br>**4** = Plant species of limited distribution (Watch List) or infrequent throughout a broader area in California, and which are uncommon enough that their status should be monitored regularly.<br><br>**Threat Ranks**<br>**0.1**-Seriously threatened in California (high degree/immediacy of threat)<br>**0.2**-Fairly threatened in California (moderate degree/immediacy of threat)<br>**0.3**-Not very threatened in California (low degree/immediacy of threats or no current threats known) |

# Appendix D Gnatcatcher Survey Report

ROCKS
BIOLOGICAL CONSULTING

July 9, 2015

U.S. Fish and Wildlife Service
Attn: Ms. Stacey Love
Carlsbad Fish and Wildlife Office
2177 Salk Ave., Ste. 250
Carlsbad, CA 92008

**Subject: 45-Day Report for Coastal California Gnatcatcher Surveys at the Baywa-Granger 3MW Solar Project, County of San Diego, California**

Ms. Love:

This letter presents the 45-Day Report for Coastal California Gnatcatcher (*Polioptila californica californica*; CAGN) protocol surveys conducted at the Baywa-Granger 3MW Solar project (Project) in the City of San Diego, California. Survey results were negative for CAGN.

The surveys described in this report were performed on behalf RBF Consulting/Michael Baker International. The project is located in the County of San Diego, California, within the Valley Center USGS quadrangle (see Project Location map, attached). The project area is comprised of a 40-acre parcel and a portion of Mesa Verde Road.

The Project site supports CAGN-suitable vegetation communities including Diegan coastal sage scrub (DCSS), disturbed DCSS (DCSS-D), southern mixed chaparral (SMC), open coastal live oak woodland (CLOW-O), and buckwheat scrub. All suitable habitat within the 40-acre parcel was surveyed, and areas immediately adjacent the parcel were surveyed via aural inspection and through the use of binoculars. Suitable habitat along Mesa Verde Road was surveyed; however surveys were limited to areas immediately adjacent the road (i.e., roadway shoulder) due to private property restrictions. Areas beyond the immediate roadway were surveyed via aural inspection and through the use of binoculars.

The 40-acre Project site and a 300-foot buffer were surveyed, for a total survey area of approximately 75 acres. Note that areas outside the 40-acre project parcel were not accessible by foot; these areas were surveyed from the project site using binoculars and tape playback/aurally. Based on the lack of habitat in many of the adjacent areas and their visibility from the parcel and/or the road, we feel that survey results for these off-site areas are valid for adjacency impact analysis. DCSS habitats in the survey area are dominated by California buckwheat (*Eriogonum fasciculatum*), coastal sagebrush (*Artemisia californica*), and laurel sumac (*Malosma laurina*). DCSS-D habitats in the survey area are dominated by short-pod mustard (*Hirschfeldia incana*), red brome (*Bromus madritensis ssp. rubens*), deerweed (*Acmispon glaber*), California buckwheat (*Eriogonum fasciculatum*), and fascicled tarweed (*Deinandra fasciculata*). CLOW-O habitats in the survey area are dominated by coast live oak (*Quercus agrifolia*). Buckwheat scrub habitats in the survey area are dominated by California buckwheat (*Eriogonum fasciculatum*). SMC habitats in the

2621 DENVER STREET, SUITE B ● SAN DIEGO, CA 92110-3300
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survey area are dominated by chamise (*Adenostoma fasciculatum*), black sage (*Salvia mellifera*), laurel sumac (*Malosma laurina*), coastal sagebrush (*Artemisia californica*), and mission manzanita (*Xylococcus bicolor*). Non-suitable habitats identified in the survey area include non-native grassland, ornamental/orchard, disturbed areas, and developed areas.

Survey methodology followed the U.S. Fish and Wildlife Service presence/absence protocol (1997) and the County of San Diego Multiple Species Conservation Program (MSCP) requirements, including three surveys at least one week apart. During each survey, all suitable CAGN habitats were surveyed. Taped vocalizations were used to elicit a response from CAGN in the area. Survey dates, times, and conditions are included in Table 1. A list of the 32 bird species observed during the survey is included as Appendix A.

No CAGN were detected during the surveys and no mitigation measures are recommended for the Project.

Table 1. Survey Conditions During California Gnatcatcher Surveys at the Baywa-Granger 3MW Solar Project, County of San Diego, California

| Date | 5/28/2015 | 6/11/2015 | 6/18/2015 |
|---|---|---|---|
| Survey Time | 0545-1115 | 0545-1045 | 0545-1115 |
| Temp (ºF) Start-End | 54-70 | 68-78 | 71-83 |
| Sky Cover (%) | 100-5 | 100-100 | 0-0 |
| Wind Speed (mph) | 0-1; 1-3 | 0-2; 0-2 | 0-1,1-4 |
| Personnel | Shannon Walsh (authorized individual TE-221290-3.1) and Michael Gonzales | Shannon Walsh (authorized individual TE-221290-3.1) and Michael Gonzales | Shannon Walsh (authorized individual TE-221290-3.1 |

Please don't hesitate to call me at (619) 843-6640 if you have any questions.

I certify that the information in this survey report and attached exhibit fully and accurately represent my work.

Sincerely,

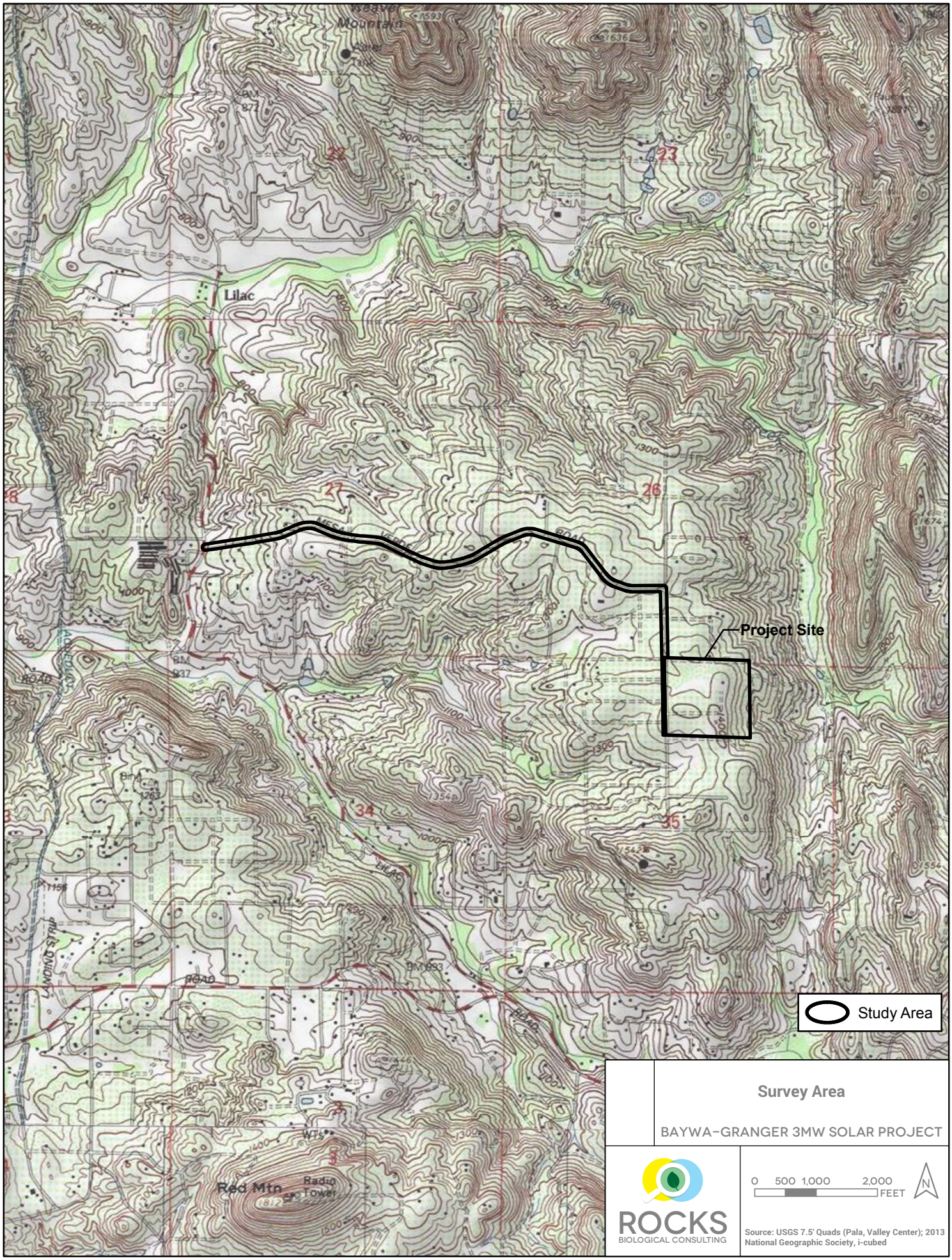
Shannon Walsh
Authorized Individual TE-221290-3.1

Jim Rocks
TE-063230-4

Enclosures: Appendix A – Bird Species Observed During Coastal California Gnatcatcher Protocol Surveys at the Baywa-Granger 3MW Solar Project, County of San Diego, California, 2015
Exhibit 1 – Project Location Map
Exhibit 2 – Vegetation Map

Appendix A. Bird Species Observed During Coastal California Gnatcatcher Protocol Surveys at the Baywa-Granger 3MW Solar Project, County of San Diego, California, 2015

| Code | Common Name | Scientific Name |
|---|---|---|
| ACWO | acorn woodpecker | *Melanerpes formicivorus* |
| AMCR | American crow | *Corvus brachyrhynchos* |
| ANHU | Anna's hummingbird | *Calypte anna* |
| ATFL | ash-throated flycatcher | *Myiarchus cinerascens* |
| BEWR | Bewick's wren | *Thryomanes bewickii* |
| BGGN | blue-gray gnatcatcher | *Polioptila caerulea* |
| BUSH | bushtit | *Psaltriparus minimus* |
| CAQU | California quail | *Callipepla californica* |
| CATH | California thrasher | *Toxostoma redivivum* |
| CALT | California towhee | *Melozone crissalis* |
| CAKI | Cassin's kingbird | *Tyrannus vociferans* |
| CLSW | cliff swallow | *Petrochelidon pyrrhonota* |
| CORA | common raven | *Corvus corax* |
| ECDO | Eurasian collared dove | *Streptopelia decaocto* |
| GREG | great egret | *Ardea alba* |
| GRRO | greater roadrunner | *Geococcyx californianus* |
| HOOR | hooded oriole | *Icterus cucullatus* |
| HOFI | house finch | *Carpodacus mexicanus* |
| LEGO | lesser goldfinch | *Spinus psaltria* |
| MALL | mallard | *Anas platyrhynchos* |
| MODO | mourning dove | *Zenaida macroura* |
| NOFL | northern flicker | *Colaptes auratus* |
| NOMO | northern mockingbird | *Mimus polyglottos* |
| NUWO | Nuttall's woodpecker | *Picoides nuttallii* |
| OATI | oak titmouse | *Baeolophus inoratus* |
| PHAI | phainopepla | *Phainopepla nitens* |
| RSHA | red-shouldered hawk | *Buteo lineatus* |
| RTHA | red-tailed hawk | *Buteo jamaicensis* |
| SPTO | spotted towhee | *Pipilo maculatus* |
| WESJ | western scrub-jay | *Aphelocoma californica* |
| WITU | wild turkey | *Meleagris gallopavo* |
| WREN | wrentit | *Chamaea fasciata* |


Lilac
Project Site
Study Area
Red Mtn
Radio Tower
Survey Area
BAYWA-GRANGER 3MW SOLAR PROJECT
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Source: USGS 7.5' Quads (Pala, Valley Center); 2013 National Geographic Society, i-cubed

## Impact Table

- OR - Ornamental (0.032 Acres)
- CBS - California Buckwheat Scrub (0.881 Acres)
- CLOW-D - Coast Live Oak Woodland Disturbed (0.039 Acres)
- CSS - Coastal Sage Scrub (7.540 Acres)
- CSS-D - Coastal Sage Scrub Disturbed (2.062 Acres)
- DIST - Disturbed (6.691 Acres)
- NNG - Non-native Grassland (0.991 Acres)
- Agriculture - Active (0.558 Acres)
- SMC - Southern Mixed Chaparral (5.848 Acres)
- QuEn - Quercus Engelmanii (0.007 Acres)
- QuAg - Quercus Agrifolia (1.188 Acres)

## Legend

- Impact Area (See Impact Table)
- Property Boundary

**All Vegetation Within 100' Buffer**

- OR - Ornamental (0.032 Acres)
- CBS - California Buckwheat Scrub (1.338 Acres)
- CLOW - Coast Live Oak Woodland (0.635 Acres)
- CLOW-D - Coast Live Oak Woodland Disturbed (0.507 Acres)
- CSS - Coastal Sage Scrub (11.583 Acres)
- CSS-D - Coastal Sage Scrub Disturbed (2.340 Acres)
- DEV - Developed (3.867 Acres)
- DIST - Disturbed (8.739 Acres)
- NG - Native Grassland (0.103 Acres)
- NNG - Non-native Grassland (0.991 Acres)
- Agriculture - Fallow (0.36 Acres)
- Agriculture - Active (3.735 Acres)
- SMC - Southern Mixed Chaparral (15.642 Acres)
- SMC-RO - Southern Mixed Chaparral with Rock Outcrops (1.417 Acres)
- QuEn - Quercus Engelmanii (0.043 Acres)
- QuAg - Quercus Agrifolia (1.228 Acres)

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Michael Baker INTERNATIONAL

0 100 200 400 Feet

Source: Eagle Aerial - 2013, SanGIS

Granger Solar

# Vegetation Survey

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