


Attachment D:

Biological Resources Technical Report (November 2015)



SUNCREST DYNAMIC REACTIVE POWER SUPPORT PROJECT BIOLOGICAL RESOURCES TECHNICAL REPORT

August 2015, Revised November 2015

SUBMITTED TO

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**Suncrest Dynamic Reactive Power Support Project
Biological Resources Technical Report
San Diego County, California**

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EXECUTIVE SUMMARY

NextEra Energy Transmission West, LLC. (NEET West) retained SWCA Environmental Consultants (SWCA) to conduct a biological resources study in support of the proposed Suncrest Dynamic Reactive Power (Static Var Compensator or SVC) Support Project (Proposed Project). To document the biological resources at the Proposed Project, SWCA conducted a literature review of existing biological information and field surveys, both of which are described in this biological resources technical report.

The Proposed Project is located in an unincorporated area of San Diego County, California, approximately 29 miles east of San Diego and 3.36 miles southeast of the community of Alpine. The Proposed Project consists of the SVC location, underground electrical transmission line, riser pole, vault structures, and an overhead transmission line connecting the transmission line to the Suncrest Substation. Construction of the SVC will occur on an approximately 6-acre privately owned parcel comprising the SVC facility, stormwater drainage and conveyance system, and associated site improvements. Once complete, the SVC will be contained within a fenced area of up to approximately 112,000 square feet (2.58 acres). The approximately 1-mile 230 kilovolt (kV) single-circuit underground transmission line will be located on approximately 1.4 acres of private and San Diego Gas and Electric land under Bell Bluff Truck Trail. At the terminus of the underground transmission line, a riser pole will connect an approximately 300-foot-long overhead span into the existing Suncrest Substation's 230 kV bus.

This report is intended to identify biological resources within the Proposed Project and analyze impacts to biological resources that may occur as a result of the implementation of the Proposed Project. Biological resources considered for this report include sensitive and common plants and animals, habitats and sensitive natural communities, wildlife movement corridors, and water features subject to state or federal jurisdiction. Methodologies used to assess the biological resources known to, or known to potentially occur at the Proposed Project, assessments of potential impacts to these resources based on the project design, and avoidance, minimization, and mitigation measures to reduce these potential impacts are outlined in this report. With the implementation of the mitigation measures described herein, it is anticipated that impacts to biological resources would be less than significant as defined in the California Environmental Quality Act.

No species listed pursuant to the federal Endangered Species Act or California Endangered Species Act were identified as present or likely to occur at the Proposed Project based on the literature review or field studies. Sensitive biological resources identified in and around the Proposed Project include: 1) jurisdictional waters; 2) felt-leaved monardella, a rare plant; 3) nesting birds, including a previously occupied golden eagle nesting territory; 4) red-diamond rattlesnake; 5) coast horned lizard; and 6) San Diego desert woodrat.

The Proposed Project has been designed to avoid impacts to jurisdictional waters, and to any populations of felt-leaved monardella to the maximum extent practicable. Up to 0.3 acre of Engelmann Oak/Coast Live Oak/Poison Oak/Grass Association, a sensitive natural community, may be impacted; however, this area has been subject to repeated disturbance dating back more than 20+ years which has diminished its habitat value. Applicant-proposed measures are recommended to avoid and minimize impacts to mobile wildlife. Due to the relative scarcity of occurrences of sensitive biological resources at the Proposed Project, the limited number of special-status species that could occur, and the small footprint of the project in relation to local and global ranges and populations of these species, impacts to biological resources are anticipated to be less than significant. Implementation of applicant-proposed measures will further minimize impacts to biological resources.

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1 INTRODUCTION

NextEra Energy Transmission West, LLC (NEET West) proposes to construct the Suncrest Dynamic Reactive Power (Static Var Compensator or SVC) Support Project (Proposed Project) in San Diego County, California, to support the existing San Diego Gas and Electric (SDG&E) Suncrest Substation. This biological resources technical report was prepared to document the existing biological resources in the Proposed Project, and to analyze impacts to biological resources that may occur as a result of the implementation of the Proposed Project. Biological resources considered include sensitive and common plants and animals, habitats and sensitive natural communities, wildlife movement corridors, and water features subject to State or federal jurisdiction. This report describes the methodologies used to assess the biological resources known to occur and potentially occurring at the Proposed Project, assesses potential impacts to these resources based on the project design, and presents avoidance and minimization measures to further reduce these potential impacts.

1.1 Project Location

The Proposed Project is located in unincorporated San Diego County, on private land adjacent to the Cleveland National Forest, west of Japatul Valley Road and south of Interstate 8 (Figure 1). Nearby unincorporated communities include Descanso, approximately 3.78 miles to the northeast, and downtown Alpine, approximately 5.75 miles to the west. The city of El Cajon is approximately 13.36 miles west of the Proposed Project. The SVC facility will be constructed on part of a parcel that is privately owned, and immediately east of and adjacent to the Cleveland National Forest. The Proposed Project will cross privately owned parcels, including two owned by SDG&E. The Proposed Project components and locations under consideration for development are shown in Figure 2, Proposed Project Location Map.

1.2 Project Description

The Proposed Project has two primary components, the Dynamic Reactive Power Support Facility (SVC), and a 230 kilovolt (kV) single-circuit underground transmission line connecting the SVC to the existing Suncrest Substation, which is owned and operated by SDG&E. The Suncrest Substation was constructed in 2012, and is located at the western terminus of the proposed transmission line, approximately 1 mile west of the proposed SVC. An approximately 300-foot-long overhead span will connect into the existing Suncrest Substation's 230 kV bus. Once interconnected to the Suncrest Substation, the SVC will provide continuous reactive power response, improving the reliability of the transmission grid and increasing the amount of renewable power delivered to the San Diego Area.

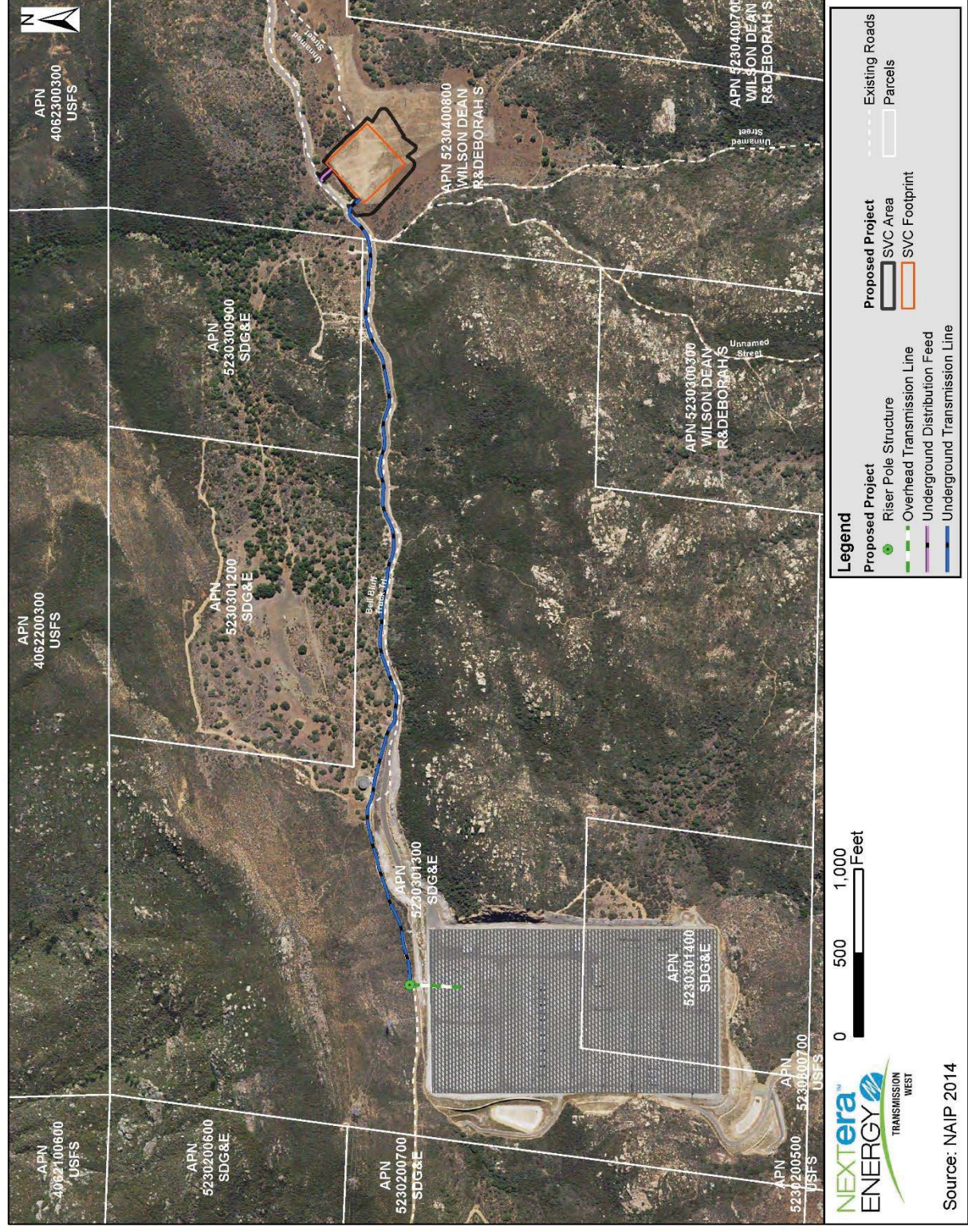
In addition to the two primary components, the Proposed Project will also include:

- Construction of two new access driveways to facilitate construction, operation, and maintenance of the SVC;
- Installation of fiber optic cable within the same underground duct bank as the 230 kV cable to provide communications for line relaying, supervisory control and data acquisition (SCADA), and other devices as required;
- Installation of approximately five splice vaults to facilitate installation of the new underground cable and operation and maintenance of the underground transmission line; and,
- Installation of a 12 kV underground electrical distribution feed to the SVC.

Figure 1. General Vicinity Map



Figure 2. Proposed Project Location Map



The proposed SVC will be constructed immediately south of Bell Bluff Truck Trail (an existing paved private road), in an area that was previously used as a laydown area for the Sunrise Powerlink Transmission Project (Sunrise Powerlink). The proposed underground transmission line will exit the SVC on the north side and then turn westward along the north side of Bell Bluff Truck Trail for approximately 1 mile to a point where the transmission line will transition to a riser pole structure. The riser pole structure will serve as the change of ownership pole between NEET West and SDG&E. SDG&E will then string the conductor overhead with a single, approximately 300-foot-long overhead span to enter the Suncrest Substation and make the interconnection.

With the exception of the riser pole structure and some temporary work areas (to facilitate installation of the vault structures), the majority of the proposed underground transmission line will be located within the paved roadbed of Bell Bluff Truck Trail. Duct bank installation and equipment and material staging will be limited to either the north or south side of the road centerline, depending on the location of other utilities in the roadway, to maintain an unobstructed single lane of travel on the 30-foot-wide road section so as not to impede access to Suncrest Substation. A laydown area to the west of the riser pole, for a length of approximately 150 feet along Bell Bluff Trail, is also included in the project footprint. Approximately five splice vaults will be installed underground along the transmission line alignment approximately every 900 feet to facilitate installation of the underground cable and operation and maintenance of the transmission line following construction. The number of vaults may be reduced based on the final design specifications of the underground transmission line. Access to the proposed SVC area will be immediately off of Bell Bluff Truck Trail via two new approximately 20-foot-wide by 95-foot-long access drives. The roadway aprons of these access drives will be paved while the remainder of the access drives will be graveled.

Construction of the SVC (e.g., limit of grading and associated site improvements based on current information) will occupy a total area of approximately 6 acres. The SVC will be contained within a fenced area of up to approximately 2.58 acres. During construction, a 2.56-acre staging area will be used to support construction activities and restored once the construction is complete. Total land requirements for the underground transmission line and riser pole total 3.62 acres; including 3.13 acres of temporary disturbance and 0.49 acres of permanent disturbance.

2 REGULATORY BACKGROUND

2.1 Federal

2.1.1 Federal Endangered Species Act

The Proposed Project does not have a federal nexus and, therefore, reference to the Endangered Species Act (ESA) and other federal laws is provided here for informational purposes only.

The U.S. Congress passed the Endangered Species Act (ESA) in 1973 to protect endangered species and species threatened with extinction (federally listed species). The ESA operates in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Section 9 of the ESA prohibits the “take” of endangered or threatened wildlife species. The legal definition of “take” is to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 United States Code [U.S.C.] 1532(19)). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (Code of Federal Regulations [CFR] Title 50, Section 17.3). Harassment is defined as actions that create the likelihood of injury to listed species to such

an extent as to significantly disrupt normal behavior patterns (50 CFR 17.3). Actions that result in take can result in civil or criminal penalties.

In addition to listing species and distinct population segments, the ESA defines critical habitat as habitat deemed essential to the survival of a federally listed species. Under Section 7, all federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its designated critical habitat. Critical habitat requirements do not apply to activities on private land that do not involve a federal nexus.

Actions that result in take of listed species typically require authorization from the USFWS under either Section 7 or Section 10 of the ESA. The Proposed Project is not expected to result in any impacts to ESA-listed species or critical habitat.

2.1.2 Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), first enacted in 1918, prohibits any person, unless permitted by regulations, to:

“...pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatsoever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention ... for the protection of migratory birds ... or any part, nest, or egg of any such bird.” (16 U.S.C. 703)

The list of migratory birds includes nearly all bird species native to the United States. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. The statute was extended in 1974 to include parts of birds, as well as eggs and nests. Thus, it is illegal under MBTA to directly kill, or destroy a nest of, nearly any native bird species, not just endangered species. Activities that result in removal or destruction of an active nest (a nest with eggs or young being attended by one or more adults) would violate the MBTA. Removal of unoccupied nests, and bird mortality resulting indirectly from disturbance activities, are not considered violations of the MBTA.

2.1.3 Bald and Golden Eagle Protection Act

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

The act provides criminal penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle . . . [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.”

On November 10, 2009, the USFWS implemented new rules under the existing Bald and Golden Eagle Act, requiring all activities that may disturb or incidentally take an eagle or its nest as a result of an otherwise legal activity to receive permits from the USFWS.

Under USFWS rules (16 U.S.C. 22.3; 72 Federal Register 31,132, June 5, 2007), “disturb” means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best

scientific information available: 1) injury to an eagle; 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.” In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment.

2.1.4 Clean Water Act

The Proposed Project will not result in impacts to “waters of the United States” and, therefore, reference to the Clean Water Act (CWA) is provided here for informational purposes only. The Clean Water Act (CWA) (33 U.S.C. 1251 et seq.) is the primary federal legislation that addresses water quality, pollution, and protection of the chemical, physical, and biological integrity of most waters in the United States. The CWA chiefly addresses the quality of surface waters, while groundwater contamination is addressed by other legislation, including the Resource Conservation and Recovery Act (RCRA).

On June 29, 2015, the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) published Federal Register Volume 79, Number 76 (April 21, 2014), a final rule (Clean Water Rule) defining the scope of waters protected under the Clean Water Act (CWA), in light of the U.S. Supreme Court cases in *U.S. v. Riverside Bayview, Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)*, and *Rapanos*. The new rule will enhance protection for the nation’s public health and aquatic resources, and increase CWA program predictability and consistency by increasing clarity as to the scope of “waters of the United States” protected under the CWA. The final rule becomes effective as of August 28, 2015, and the USACE and the EPA will make similar changes in the CWA Rule at 33 CFR 328.3 and 40 CFR 110.0, 112.2, 116.3, 117.1, 122.2, 232.2, 300.5, part 300 App. E, 302.3, and 401.11.

In this final rule, the agencies clarify the definition of “waters of the United States” to include eight categories of jurisdictional waters. The first three types of jurisdictional waters—traditional navigable waters, interstate waters, and the territorial seas—are jurisdictional by rule in all cases. The fourth type, impoundments of jurisdictional waters, is also jurisdictional by rule. The next two types of waters, “tributaries” and “adjacent” waters, are jurisdictional by rule, as defined, because the science confirms that they have a significant nexus to traditional navigable waters, interstate waters, or territorial seas. For waters that are jurisdictional by rule, no additional analysis is required.

The final two types of jurisdictional waters are those waters found after a case-specific analysis to have a significant nexus to traditional navigable waters, interstate waters, or the territorial seas, either alone or in combination with similarly situated waters in the region. Justice Kennedy acknowledged the agencies could establish more specific regulations or establish a significant nexus on a case-by-case basis, *Rapanos* at 782, and for these waters the agencies will continue to assess significant nexus on a case-specific basis.

2.1.4.1 CLEAN WATER ACT SECTION 303 AND 304

Pursuant to Section 303 of the CWA, states are required to adopt water quality standards applicable to all Waters of the U.S. (33 U.S.C. 1313). When adopting water quality standards, the states are required to consider the designated uses of the waters involved and the associated water quality criteria based upon those uses. Such standards are established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and their use and value for navigation. Standards are also required to protect the public health or welfare, and enhance the quality of water. Preferably, adopted water quality standards consist of specific numerical criteria; however, non-numeric

criteria (e.g., narrative criteria, species depended criteria, ecological criteria) based on bioassessment or monitoring may be utilized where numeric criteria are not available.

Under CWA Section 303(d) states, territories, and authorized tribes are required to develop lists of “impaired waters” identifying those waters where pollution controls are not sufficient to meet designated water quality standards resulting in the impairment of beneficial uses. In making such designations it is required that the jurisdiction establish a priority ranking system accounting for the severity of the pollution. This prioritization system is used in the development of Total Maximum Daily Loads (TMDLs) for these waters to address water quality issues and the restoration of beneficial uses.

Section CWA 304(a) requires that EPA develop criteria for water quality that reflects the latest scientific knowledge based on data and scientific judgments on pollutant concentrations and environmental or human health effects. Criteria are grouped into six categories: aquatic life, biological, nutrients, human health, microbial (pathogen), and recreational.

Implementation of Section 303 of the CWA (i.e., adoption of water quality standards, identification of beneficial uses, and identification of impaired waters) in California is performed by the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs). The Proposed Project is within the jurisdiction of the San Diego RWQCB (SDRWQCB).

2.1.4.2 CLEAN WATER ACT SECTION 401

Section 401 of the CWA provides states and authorized tribes the opportunity to protect water quality by requiring that any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the state in which the discharge originates (33 U.S.C. 1341). This authority ensures that federally permitted activities comply with the CWA and State water quality laws. Section 401 is implemented through a review process that is conducted by the RWQCB, or in the case of when multiple jurisdictions have authority from the SWRCB. The Proposed Project is within the jurisdiction of the SDRWQCB.

2.1.4.3 CLEAN WATER ACT SECTION 402

The National Pollutant Discharge Elimination System (NPDES) program, established in 1972 as part of the Federal Water Pollution Control Act, controls water pollution through regulation of point source pollutants discharging to waters of the United States (33 U.S.C. 1342). Under the NPDES program all facilities discharging pollutants from any point source into waters of the United States are required to obtain a NPDES permit. Though broadly defined, pollutants typically include any type of industrial, municipal, and agricultural waste and for regulatory purposes have been grouped into three categories: conventional (Section 304(a)(4) of the CWA), toxic (Section 307(a)(1) of the CWA), and non-conventional (pollutants not otherwise defined including many nutrient or water quality parameters). The primary focus of the federal NPDES permitting program has historically been municipal and non-municipal (industrial) discharges.

In 1987, with the issuance of the 1987 Water Quality Act, Section 402 of the CWA was amended, requiring regulation of additional stormwater dischargers (NPDES Storm Water Program). Phase I of the NPDES Storm Water Program addresses five categories of dischargers (Phase I Facilities) including certain industrial activities, municipal separate storm drain systems (MS4s), and facilities considered to be significant contributors of pollutants. The Phase I industrial stormwater program regulations include provisions requiring construction sites disturbing greater than 5 acres to obtain NPDES permits. Phase II regulations of the NPDES Storm Water Program, issued in 1999, address additional dischargers not

covered by Phase 1 regulations. The Phase II regulations expand permitting requirements to small MS4s, construction sites of 1 to 5 acres, and certain previously exempt industrial facilities.

The EPA is the primary authority to implement NPDES although the CWA authorizes states to implement the system in lieu of the EPA. The CWA is implemented on a state and local level in California primarily by the SWRCB and nine RWQCBs, collectively. Whereas the federal NPDES program mostly deals with point source control, current focus and regulation is shifting to non-point source pollution control under the authority of the RWQCBs.

On August 19, 1999, the SWRCB reissued the General Construction Storm Water Permit (Water Quality Order 99-08-DWQ) later amending it to apply to sites as small as 1 acre. On September 2, 2009, the SWRCB adopted Order No. 2009-0009-DWQ which reissued Water Quality Order 99-08-DWQ. Order No. 2009-0009-DWQ has subsequently been amended by Order No. 2010-0014-DWQ and most recently by Order No. 2012-0006-DWQ on July 17, 2012 (Construction General Permit).

The Construction General Permit authorizes discharges of stormwater and regulates discharges of pollutants in stormwater associated with construction activities from construction sites that disturb 1 or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than 1 acre of land surface where the rainfall erosivity waiver does not apply. The Construction General Permit requires proposed dischargers to file a public Notice of Intent (NOI) prior to beginning regulated activities. Applicability of the Construction General Permit is contingent on meeting all order conditions and requirements including the implementation of a Storm Water Pollution Prevention Plan (SWPPP). In accordance with Order No. 2010-0014-DWQ, the SWPPP must be prepared and certified by a Qualified SWPPP Developer and include information to conclude:

- All pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity are controlled;
- Where not otherwise required to be under a RWQCB permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
- Site Best Management Practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology Economically Achievable (BAT)/Best Conventional Pollutant Control Technology (BCT) standard;
- Calculations and design details as well as BMP controls for site run-on are complete and correct; and,
- Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

2.1.4.4 CLEAN WATER ACT SECTION 404

Section 404 of the CWA prohibits the discharge of dredged or fill material into “waters of the United States” without a permit from the USACE. The term “waters of the United States” as defined in the Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]) includes:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. All interstate waters including interstate wetlands (Wetlands are defined by the federal government [33 CFR 328.3(b), 1991] as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.);
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce;
4. All impoundments of waters otherwise defined as waters of the United States under the definition;
5. Tributaries of waters identified in paragraphs (1) through (4);
6. Territorial seas; and,
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6).
8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA (33 CFR 328.3[a][8] added 58 CFR 45035, August 25, 1993).

The EPA also has authority over wetlands and may override a USACE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions.

2.1.5 Executive Order 11990 Protection of Wetlands

Executive Order Number 11990 was issued in May 1977 as a furtherance of NEPA, providing protection of wetlands. Pursuant to the Executive Order, all new construction should be designed to the greatest extent possible to avoid long- and short-term adverse impacts that would lead to the destruction or the modification of wetlands, in order to preserve and enhance the natural and beneficial values of wetlands.

2.2 State

2.2.1 California Endangered Species Act

The Proposed Project will not result in take of species protected under the California Endangered Species Act and, therefore, a discussion of this law is provided here for informational purposes only. The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the "taking" of listed species except as otherwise provided in state law. Section 86 of the Fish and Game Code defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Under certain circumstances, the CESA applies these take prohibitions to species petitioned for listing (state candidates). Pursuant to the requirements of the CESA, State lead agencies (as defined under CEQA PRC Section 21067) are required to consult with the CDFW to ensure that any action or project is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat. Additionally, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

The CESA requires the CDFW to maintain a list of threatened and endangered species. The CDFW also maintains a list of candidates for listing under the CESA and of species of special concern (or watch list species).

2.2.2 California Fully Protected Species

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists protected amphibians and reptiles, and Section 3515 prohibits take of fully protected fish species. Eggs and nests of fully protected birds are under Section 3511. Migratory nongame birds are protected under Section 3800, and mammals are protected under Section 4700. Except for take related to scientific research, all take of fully protected species is prohibited.

2.2.3 Nesting Birds and Raptors

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 provides protection for all birds of prey, including their eggs and nests.

2.2.4 Migratory Bird Protection

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

2.2.5 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Section 1900-1913) directed the California Department of Fish and Game (now known as CDFW) to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protected endangered and rare plants from take. The NPPA thus includes measures to preserve, protect, and enhance rare and endangered native plants.

CESA has largely superseded NPPA for all plants designated as endangered by the NPPA. The NPPA nevertheless provides limitations on take of rare and endangered species as follows: "...no person will import into this state, or take, possess, or sell within this State" any rare or endangered native plant, except in compliance with provisions of the CESA. Individual landowners are required to notify the CDFW at least 10 days in advance of changing land uses to allow the CDFW to salvage any rare or endangered native plant material.

2.2.6 Inventory of Rare and Endangered Plants

Operating under a Memorandum of Understanding with the CDFW, the California Native Plant Society (CNPS) maintains an inventory of plants believed or known to be rare in the State of California. This list includes species not protected under federal or state endangered species legislation (CNPS 2015). Plants in the inventory are assigned a California Rare Plant Ranking (CRPR). The major categories of plants under the CNPS scheme are:

- List 1A – Plants presumed extinct.
- List 1B – Plants rare, threatened, or endangered in California and elsewhere.
- List 2 – Plants rare, threatened, or endangered in California, but more numerous elsewhere.
- List 3 – A review list of plants for which the CNPS requires more information.
- List 4 – A watch list of plants of limited distribution.

Plants on CNPS List 1 or 2 generally meet the CEQA Section 15380 definitions of rare or endangered. These plants also all meet the definitions of CESA, and are eligible for state listing.

2.2.7 California Desert Native Plants Act

The California Desert Native Plants Act (CDNPA) protects non-listed California desert native plants from unlawful harvesting on public and private lands in Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties (California Food and Agriculture Code, Sections 80001-80006, Division 23). A number of desert plants are protected under this act, including all species in the agave and cactus families. Harvest, transport, sale, or possession of specific native desert plants is prohibited unless a person has a valid permit, or wood receipt, and the required tags and seals.

This provision excludes any plant that is declared to be a rare, endangered, or threatened species by federal or state law or regulations, including, but not limited to, the California Food and Agriculture Code. The fee for the permit to remove any of these plants will not be less than \$1 per plant, except for Joshua trees (*Yucca brevifolia*), which will not be less than \$2 per plant.

The CDNPA was taken into consideration in this evaluation due to the presence of yuccas, which are in the agave family, at the Proposed Project and to provide guidance to NEET West with regard to the removal of yuccas during implementation of the Proposed Project.

2.2.8 Porter-Cologne Water Quality Control Act

The Proposed Project will not result in impacts to “waters of State” and, therefore, reference to the Porter-Cologne Water Quality Control Act is provided here for informational purposes only. The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) provides guidance for the protection of water quality and beneficial uses of water throughout the state and, along with the CWA, provides the overarching legislation governing the SWRCB and RWQCBs. Waters of the State are defined as any surface water or groundwater, including saline waters, which are within the boundaries of the state (California Codes: PRC Section 71200). This differs from the CWA definition of waters of the United States by its inclusion of groundwater and waters outside the ordinary high water mark (OHWM) in its jurisdiction.

The Act requires that each regional board adopt a water quality control plan (basin plan) for their region. Pursuant to Porter-Cologne, these basin plans become part of the California Water Plan, when such plans have been reported to the Legislature (Section 13141, California Water Code). The Proposed Project is located within the jurisdiction of the SDRWQCB (Region 9) and is, therefore, subject to the SDRWQCB’s Basin Plan.

In 1972, amendments to the Porter-Cologne Act gave California the authority and ability to operate the federal NPDES permits program. Before a permit may be issued, Section 401 of the CWA requires that the local RWQCB, or in the case of when multiple jurisdictions have authority the SWRCB, certify that the discharge will comply with applicable water quality standards. In addition, under Porter-Cologne, the RWQCB or SWRCB may also issue waste discharge requirements, that set conditions on the discharge of a waste. These requirements must be consistent with the water quality control plan for the body of water that receives the waste discharge, as well as protect the beneficial uses of those receiving waters.

The SWRCB and RWQCBs also implement Section 402 of the CWA, which allows the State to issue a single discharge permit for stormwater runoff for the purposes of both State and federal law, as well as Section 303(d) of the CWA pursuant to the authority of the Porter-Cologne Act.

2.2.9 California Fish and Game Code (Sections 1601-1607)

The Proposed Project will not result in alteration or substantial disturbance of any lake or streambed and, therefore, reference to the California Fish and Game Code, Sections 1601-1607) is provided here for informational purposes only. These code sections prohibit alteration of any lake or streambed under CDFW jurisdiction, including intermittent and seasonal channels and many artificial channels, without execution of a Lake and Streambed Alteration Agreement through the CDFW. This applies to any channel modifications that would be required to meet drainage, transportation, or flood control objectives of the project.

Sections 1601 through 1607 of the California Fish and Game Code require that “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake” be subject to a Lake and Streambed Alteration Agreement with CDFW. CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. This applies to any channel modifications that would be required to meet drainage, transportation, or flood control objectives of the project.

2.3 Local

Because the California Public Utilities Commission (CPUC) regulates and authorizes the construction of investor-owned public utility facilities, the CPUC has exclusive jurisdiction over the siting and design of the Proposed Project. As such, projects, including the Proposed Project, are exempt from local land use and zoning regulations and discretionary permitting. However, CPUC General Order 131-D (planning and construction of facilities for the generation of electricity and certain electric transmission facilities), Section III.C requires “the utility to communicate with, and obtain the input of, local authorities regarding land-use matters and obtain any non-discretionary local permits.” As such, NEET West has taken into consideration all State and local land use plans and policies, as well as local land use priorities and concerns as they relate to biological resources. Although the County of San Diego (County) and other local policies are provided below, they are provided for disclosure purposes only.

2.3.1 San Diego County General Plan

The San Diego County General Plan includes a Conservation and Open Space Element which addresses habitats and species diversity within the county, as well as wildlife corridors and habitat linkages. To that end, the General Plan includes the following goals, and policies within those goals, that are applicable to biological resources.

2.3.1.1 GOAL COS-1: INTER-CONNECTED PRESERVE SYSTEM

- **COS-1.1, Coordinated Preserve System:** Identify and develop a coordinated biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.
- **COS-1.2, Minimize Impacts:** Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.
- **COS-1.3, Management:** Monitor, manage, and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

- **COS-1.4, Collaboration with Other Jurisdictions:** Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals.
- **COS-1.5, Regional Funding:** Collaborate with other jurisdictions and federal, state, and local agencies to identify regional, long-term funding mechanisms that achieve common resource management goals.
- **COS-1.6, Assemblage of Preserve Systems:** Support the proactive assemblage of biological preserve systems to protect biological resources and to facilitate development through mitigation banking opportunities.
- **COS-1.7, Preserve System Funding:** Provide adequate funding for assemblage, management, maintenance, and monitoring through coordination with other jurisdictions and agencies.
- **COS-1.8, Multiple-Resource Preservation Areas:** Support the acquisition of large tracts of land that have multiple resource preservation benefits, such as biology, hydrology, cultural, aesthetics, and community character. Establish funding mechanisms to serve as an alternative when mitigation requirements would not result in the acquisition of large tracts of land.
- **COS-1.9, Invasive Species:** Require new development adjacent to biological preserves to use non-invasive plants in landscaping. Encourage the removal of invasive plants within preserves.
- **COS-1.10, Public Involvement:** Ensure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans.
- **COS-1.11, Volunteer Preserve Monitor:** Encourage the formation of volunteer preserve managers that are incorporated into each community planning group to supplement professional enforcement staff.

2.3.1.2 GOAL COS-2: SUSTAINABILITY OF THE NATURAL ENVIRONMENT

- **COS-2.1, Protection, Restoration, and Enhancement:** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.
- **COS-2.2, Habitat Protection through Site Design:** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

2.3.1.3 GOAL COS-3: PROTECTION AND ENHANCEMENT OF WETLANDS

- **COS-3.1, Wetland Protection:** Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.
- **COS-3.2, Minimize Impacts of Development:** Require development projects to:
 - 1) Mitigate any unavoidable losses of wetlands, including its habitat functions and values; and,
 - 2) Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging or adding fill material, exposure to pollutants such as

nutrients, hydromodification, land and vegetation clearing, and the introduction of invasive species.

2.3.2 San Diego County Multiple Species Conservation Program

Approved in 1997, the San Diego Multiple Species Conservation Program (MSCP) is an agreement between the County, USFWS, and CDFW. The MSCP preserves a network of habitat and open space throughout San Diego County and covers locally sensitive plant and animal species in each subarea as identified in the applicable list of covered species. The MSCP has established a Mitigation Banking Policy, a Biological Mitigation Ordinance (BMO), and Design Criteria for Linkages and Corridors. Compliance with the BMO allows the County to issue Incidental Take Permits for projects that impact sensitive habitats. Projects that are exempt from the BMO include activities that are exempt from CEQA and other categories.

As of May 2015, the MSCP has been implemented for southwestern San Diego County. The area east of the community Alpine, including the Proposed Project location, has not been incorporated into the MSCP at this time, although preliminary planning documents have been drafted. While this program is currently not applicable to the Proposed Project, provisions regarding MSCP-covered species have been evaluated for consistency.

3 METHODS

SWCA Environmental Consultants (SWCA) conducted a biological resources study using a combination of literature review and field surveys to document the biological resources at the Proposed Project.

3.1 Literature and Records Review

SWCA biologists reviewed available regional and local natural resources information including published and unpublished documents, publicly available data sets, and herbarium records. Database searches included the nine U.S. Geological Survey (USGS) 7.5-minute quadrangles at and surrounding the Proposed Project: El Cajon Mountain, Tule Springs, Cuyamaca Peak, Alpine, Viejas Mountain, Descanso, Dulzura, Barrett Lake, and Morena Reservoir. Site-specific information reviewed included, but was not limited to, the following sources:

- CDFW California Natural Diversity Database (CNDDB) (CDFW 2015a).
- CNPS, Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Available at: <http://www.rareplants.cnps.org>.
- eBird. 2012. eBird: An online database of bird distribution and abundance [web application]. As updated 2015. eBird, Ithaca, New York. Available at: <http://www.ebird.org>.
- Soil Survey Staff, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). Web Soil Survey. Available at: <http://websoilsurvey.nrcs.usda.gov/>.
- Chambers Group, Inc. 2009. *Final Sunrise Powerlink Project 2009 California Gnatcatcher Report*.
- Chambers Group, Inc. 2011. *Final Sunrise Powerlink Project 2010 California Gnatcatcher Report*.

- Chambers Group, Inc. September 2010. *Quino Checkerspot Butterfly (Euphydryas editha quino) Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project San Diego County, California.*
- RECON Environmental, Inc. 2009. *Riparian Bird Survey Report for the SDG&E Sunrise Powerlink Project.*
- RECON Environmental, Inc. 2010. *2010 Arroyo Toad Survey Report for the SDG&E Sunrise Powerlink Project.*
- RECON Environmental, Inc. 2010. *2010 Rare Plant Survey Report for the SDG&E Sunrise Powerlink Project.*
- RECON Environmental, Inc. 2010. *Rare Plant and Invasive Weed Report for Alpine Construction Yard 18 and Alpine Regional Field Offices Yard 18A in Alpine, California, for the proposed Environmentally Superior Southern Route (ESSR) of the San Diego Gas & Electric (SDG&E) Sunrise Powerlink Project.*
- 2010 Report on Acoustic Bat Surveys Conducted Along the Sunrise Powerlink in San Diego and Imperial Counties, California.
- September 2010 Amendment to *Report on Bat Surveys Conducted Along the San Diego Gas & Electric Sunrise Powerlink Transmission Line, San Diego and Imperial counties, California 2009.*
- SJM Biological Consultants, Inc. and Chambers Group, Inc. 2010. *Summary of Field Searches for the Federally Endangered Stephens' Kangaroo Rat (Dipodomys stephensi) In and Near U.S. Forest Service Lands Along the Proposed Southern Route of the SDG&E Sunrise Powerlink Project in San Diego County, California.*
- SJM Biological Consultants, Inc. and Chambers Group, Inc. 2010. *Summary of Field Searches for the Federally Endangered Stephens' Kangaroo Rat (Dipodomys stephensi) Along and Adjacent to the Proposed Southern Route of the SDG&E Sunrise Powerlink Project, San Diego County, California.*
- Wildlife Research Institute, Inc. 2010. *Final Report Golden Eagle Surveys Surrounding Sunrise Powerlink Project Area in San Diego and Imperial Counties, California.*
- USFWS Critical Habitat Portal, Available at: <http://criticalhabitat.fws.gov/>.
- National Wetland Inventory (NWI), Geographic Information Systems (GIS) Layers Available at: <http://atlas.ca.gov/>.
- USGS 7.5-minute series topographic quadrangle maps.
- Aerial imagery of the Proposed Project.

Biological resources geospatial data were collected from a variety of sources to develop a project-specific GIS database. This was the first analysis level and it provided reviewers with essential sensitive species location data, preliminary habitat information, potential drainages, and other jurisdictional waters, and designated critical habitat for federally listed species. The data were compiled in ArcGIS Desktop 10 and

were subsequently uploaded to a Trimble® handheld global positioning system (GPS) unit for field verification.

Many biological surveys were conducted at and around the Proposed Project as part of the studies completed for SDG&E's Sunrise Powerlink. Almost all of the Proposed Project lies within the construction footprint of the Sunrise Powerlink. Components of the Sunrise Powerlink that overlap with the Proposed Project are 1) the Suncrest Substation; 2) the Wilson Laydown Area, which served as a materials and equipment stockpiling and organizational area; and 3) Bell Bluff Truck Trail, which was paved and widened. The results of many of the surveys conducted for Sunrise Powerlink were reviewed during consideration of the biological resources at the Proposed Project.

3.2 Sensitive Biological Resources

For the purposes of this study, sensitive plants and animals were defined to include species, subspecies, varieties, and populations recognized by CDFW or USFWS, and which have been classified into one or more of the following categories:

- Species, subspecies, and populations listed or proposed for listing as threatened or endangered pursuant to the federal ESA, and species that are candidates for such listing.
- Species and subspecies listed or proposed for listing by the State of California as threatened or endangered pursuant to the CESA.
- Plants included in the Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2015b).
- Plants assigned California Rare Plant Ranks (CRPRs) 1 or 2 by CNPS.
- Animals listed on the California Special Animals List as Species of Special Concern, Fully Protected, or Watchlist, and for invertebrates, all species regardless of the reason for inclusion.

In addition, natural communities recognized by the CDFW as being of special concern were considered, along with riparian habitats and water bodies under the jurisdiction of the CDFW, USACE, and/or RWQCB.

Throughout this document, species, subspecies, varieties, and populations are broadly referred to throughout this document as "species," a term which is used here to indicate whichever pertinent taxonomic levels are recognized by the state and federal authorities with jurisdiction over plants and animals.

Species occurrences from the CDFW CNDDDB RareFind5 (CDFW 2015a) and the CNPS Online Inventory of Rare and Endangered Plants (CNPS 2015) were queried for project relevant sensitive species data. Records of sensitive plants, animals, and natural communities from the nine USGS topographic 7.5-minute quadrangles including and adjacent to the Proposed Project were queried from both the CNDDDB and CNPS databases. The results of the records search was used as the basis of the list of species considered for having the potential to occur at the Proposed Project, as informed by the professional judgment of SWCA biologists. This list was then reviewed to determine whether habitat for the species occurs at the Proposed Project, and to identify each species' likelihood of occurrence.

3.3 Field Surveys

SWCA biologists Michael Cady, Andrea Haller, Harrison Kirner, Ricardo Montijo, Pauline Roberts, and Rico Ramirez conducted the field surveys. An initial site reconnaissance was conducted on May 2, 2014,

by Mr. Cady and Mr. Montijo. Additional field studies to document existing plant, wildlife, and wetlands were performed by the biologists on February 24 and 25, March 25 and 26, May 1 and 13, ~~and June 25, October 28, and November 10, 2015.~~ SWCA biologists spent approximately 120 hours conducting the field surveys within the Proposed Project, at alternative site locations, and within 150 meters of the Proposed Project. The surveys included plant and wildlife inventories, vegetation mapping, and a delineation of waters, wetlands, and riparian areas potentially subject to the jurisdiction of the USACE, CDFW, and/or RWQCB. Surveyors noted and recorded all wildlife species encountered directly through direct observation, sign (scat, remains, or tracks), and for birds, by their species-specific vocalizations. The use of binoculars also facilitated wildlife identification. Similarly, surveyors recorded plant species encountered in the field, although, in some instances, plants were collected and subsequently identified using dichotomous keys.

~~The Proposed Project footprint lies almost entirely within the area previously impacted by the construction of the Sunrise Powerlink. The area of the Proposed Project that coincides with the Sunrise Powerlink Project was subject to habitat assessments, and where warranted, surveys for special status species were conducted. At the Proposed Project, only red diamond rattlesnake and felt leaved monardella were determined to be present. Hermes copper butterfly was observed at or immediately south of what is now the Suncrest Substation, more than 150 meters from the Proposed Project. Since those studies were completed, habitats for special status wildlife are generally less available and/or suitable, due to the temporary and permanent impacts resulting from the construction of the Sunrise Powerlink, including the construction of the Suncrest Substation, the paving of Bell Bluff Truck Trail, and the use of the Wilson Laydown Area as a construction laydown yard and subsequent restoration.~~

3.4 Vegetation, Cover Types, and Jurisdictional Waters

Mapping and location data were collected using ESRI ArcPad 8.0 software installed on Trimble® GPS units with sub-meter accuracy. The software allowed biologists to superimpose the Proposed Project alignment on aerial imagery and create vegetation polygons in the field. Vegetation types were mapped in the vicinity of the Proposed Project based on the combined aerial maps as adjusted by the biologists who conducted field surveys. Then, using the field-verified vegetation maps, the vegetation alliances were extrapolated to the larger vicinity of the Proposed Project based on comparison with aerial and infrared (Normalized Difference Vegetation Index [NDVI]) imagery. Vegetation alliances were mapped based on *A Manual of California Vegetation* (Sawyer, Keeler-Wolf and Evens 2009), as further modified for the County of San Diego (Evens and San 2005; AECOM et al. 2011). It is important to note that vegetation types usually intergrade from one to another without abrupt edges. Mapping vegetation communities in the field relies on the biologist's professional experience to identify the boundaries. The minimum mapping unit used in creating these maps was 0.1 acre.

Potential jurisdictional waters were preliminarily mapped in-house using available data from NWI and USGS topographic maps and aerial photographs. Reconnaissance-level field verification was conducted in the spring of 2015 to refine the maps, and to determine what features met the criteria for jurisdiction by the USACE, CDFW, and/or RWQCB. A formal jurisdictional delineation report has not been prepared because the Proposed Project has been designed to avoid impacts to all jurisdictional features that were identified. Currently, the Proposed Project is designed to avoid impacts to drainages by utilizing horizontal drilling under the culverts for installation of the underground transmission line. However, if subsequent technical reports (i.e., geotechnical reports) indicate that culverts will need to be impacted, then a CDFW streambed alteration agreement may be needed, as well as additional protection measures. At this time, no protection measures for temporary and permanent impacts of culverts is necessary. Based on the current design, the connectivity of the waters conveyed by the culverts will remain unchanged during implementation of the Proposed Project.

3.5 Nomenclature Conventions

Vegetation alliance nomenclature follows *A Manual of California Vegetation* (Sawyer, Keeler-Wolf and Evens 2009), as further modified for San Diego County (Evens and San 2005; AECOM et al. 2011). Taxonomic conventions follow *The Jepson Manual: Higher Plants of California* (Baldwin et al. 2012) for plants, the American Ornithologists' Union (AOU) *Checklist of North and Middle American Birds* (AOU 2015) for avifauna, a *Complete List of Amphibian, Reptile, Bird and Mammal Species in California* ([California Department of Fish and Game \[CDFG\] 2008](#)) for other vertebrate wildlife, and the CDFW Special Animals List for invertebrates.

4 EXISTING CONDITIONS

The Proposed Project is located approximately 30 miles from the Pacific Ocean, and situated in the Laguna Mountains of the Peninsular Ranges. Topography in the vicinity of the Proposed Project is undulating, with steep hills interspersed by narrow valleys and deep canyons with steeply incised drainage corridors. Elevations in the vicinity of the Proposed Project range between approximately 3,000 and 3,200 feet above mean sea level.

San Diego County has a Mediterranean climate with warm to hot, dry summers, and mild to cool, wet winters. The coastal climate is generally mild with average temperatures of 65 degrees Fahrenheit (°F). Inland temperatures are typically cooler with an average temperature of 57°F in the Laguna Mountain Area. Mean monthly temperatures in the vicinity of the Proposed Project range from a low of 54°F in December to a high of 76°F in August. Precipitation in the region also varies spatially and temporally, with increasing precipitation typically occurring from the coast landward toward the western rim of the Peninsular Range. Average annual rainfall in the vicinity of the Proposed Project is 14.7 inches with approximately 90% of the rain falling between November and April. Average monthly rainfall drops substantially during summer months with less than 0.7 inches per month between May and October. Temperature and precipitation data is based on mean monthly data from the NOAA Alpine, California climate station (GHCND:USC00040136) located approximately 6.7 miles west of the Proposed Project for the period between 1953-2014 (NOAA 2015).

4.1 Soils

Soil types in the Proposed Project include primarily sandy loams (Figure 3):

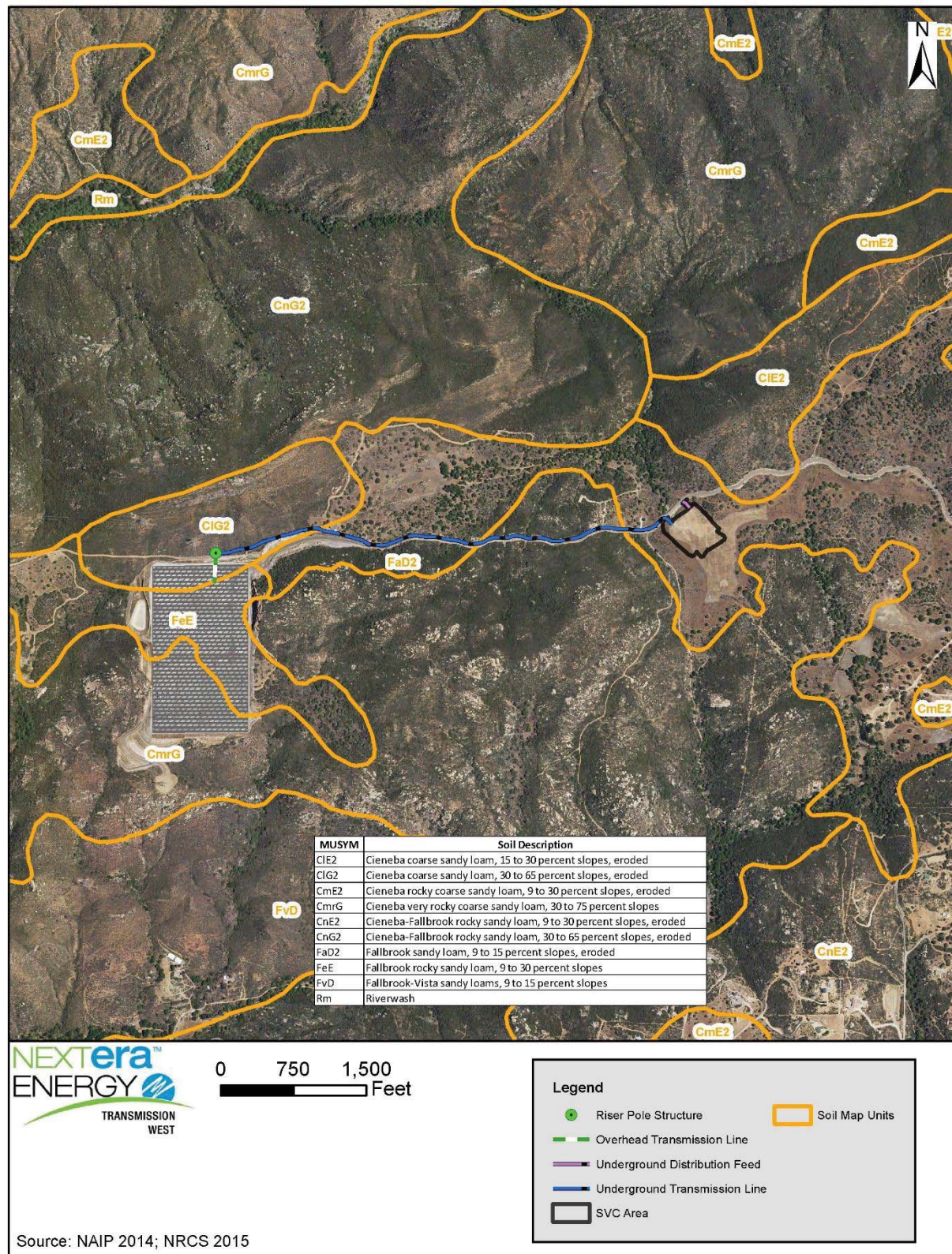
- Cieneba coarse sandy loam, 15 to 30 percent slopes, eroded
- Cieneba coarse sandy loam, 30 to 65 percent slopes, eroded
- Cieneba very rocky coarse sandy loam, 30 to 75 percent slopes
- Cieneba-Fallbrook rocky sandy loams, 30 to 65 percent slopes, eroded
- Fallbrook sandy loam, 9 to 15 percent slopes, eroded
- Fallbrook rocky sandy loam, 9 to 30 percent slopes

Cieneba soils are shallow to very shallow (depth to paralithic contact is 4 to 6 inches), excessively drained soils that formed from weathered granitic rock. They are found on hills and mountains at elevations from approximately 500 to 4,000 feet, on slopes ranging from 9 to 85 percent. Cieneba soils have runoff that ranges from low to high, and have moderately rapid soil permeability. Vegetation communities on these soils are typically chaparral and chamise, also sparse pine or oak woodlands. Cieneba soils are not classified as hydric by the NRCS.

Fallbrook soils are deep (depth to paralithic contact is 40 to 60 inches), well-drained soils that formed from weathered granitic rocks. They are found on rolling hills at elevations of 200 to 3,500 feet, on slopes

ranging from 5 to 75 percent. Rock outcrops are common in some areas. Fallbrook soils have medium to very rapid runoff, and moderately slow permeability. Vegetation communities on these soils are mainly annual grasses and forbs; chaparrals, chamise, California buckwheat, and other shrubs are common in the overstory. Many areas with Fallbrook soils are used for grazing and irrigated agriculture. Fallbrook soils are not classified as hydric by the NRCS.

Figure 3. Soil Units Map



4.2 Habitats and Natural Communities

4.2.1 Wildlife Corridors

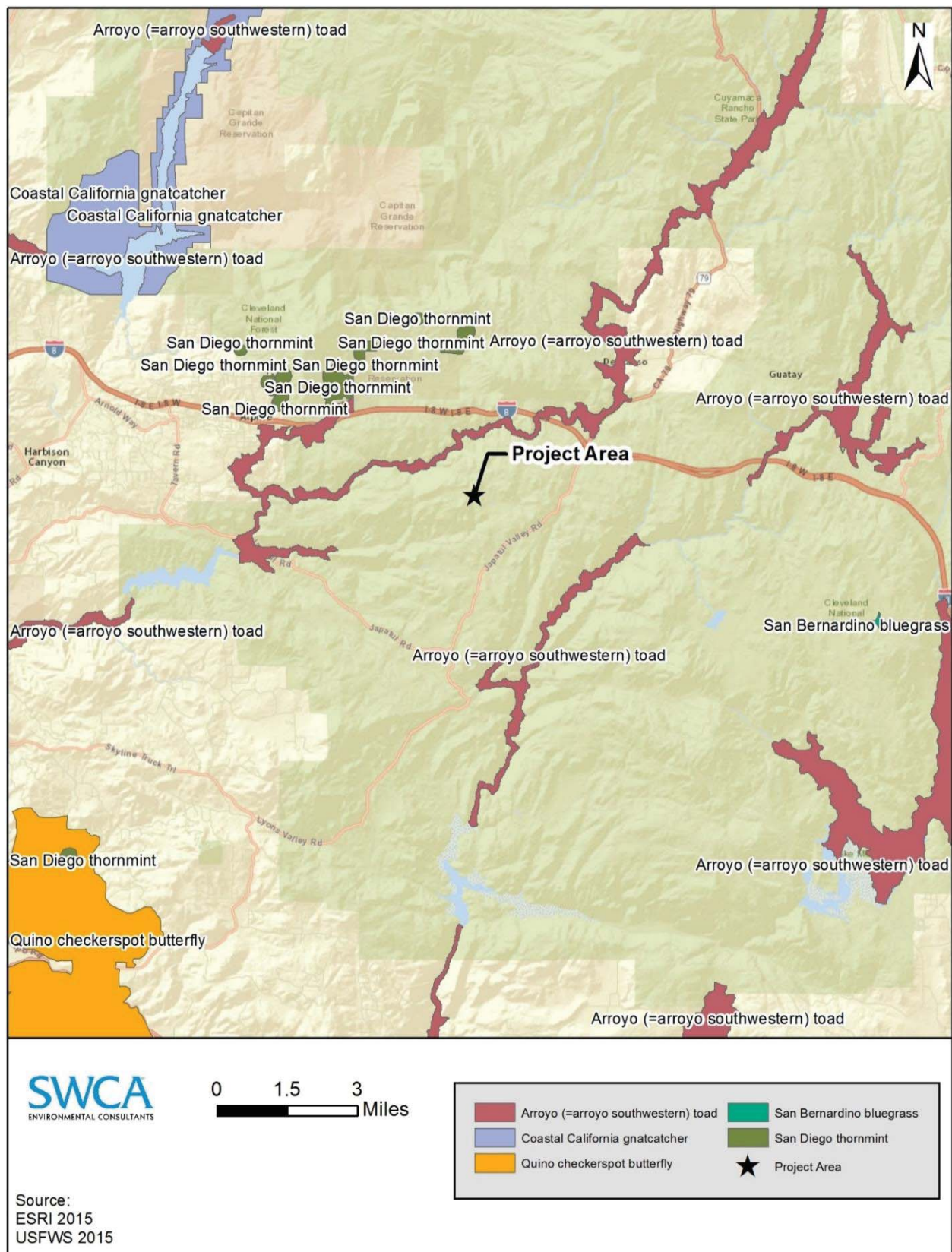
Broad continuous expanses of vegetation facilitate free dispersal of species between local areas and at larger scales between regions. Natural processes, such as wildlife movement and plant dispersal, have formed and dynamically reshaped global floras and faunas for as long as species have been able to disperse. Certain species extinctions have been the result of geographic and other forms of isolation. Prior to accelerated human population growth and expansion, these processes generally happened over millennia or longer. In many instances, population shifts, isolation, and extinction resulted in speciation (evolution of new species). Expanding human populations into previously undisturbed areas are fragmenting continuous expanses of vegetation and associated habitat at increasing rates. Habitat fragmentation is widely regarded as a major threat to wildlife population viability and plant community integrity (Rolstad 1991; Wiens 1995). Isolated populations are then more vulnerable to local extinction because of stochastic events and gene flow problems, such as bottlenecks and inbreeding depression. These effects are often dramatic in urbanized and urbanizing areas, prompting conservation biologists to develop strategies for maintaining habitat connectivity to allow free movement of populations between otherwise isolated habitat patches.

The Proposed Project is located in the Laguna Mountains of the Peninsular Ranges, which is primarily open space with small, widely-spaced residential areas. Although no specific wildlife corridors have been mapped in the immediate vicinity of the Proposed Project, natural open space and low-density development in the survey area is contiguous with off-site habitats to the north and south, providing free movement for wildlife in the area. Open space adjacent to the Proposed Project provides opportunities for movement of mammals with large home ranges, such as mule deer (*Odocoileus hemionus*), bobcat (*Lynx rufus*), and mountain lion (*Puma concolor*). The Peninsular Ranges serve on a large scale as a connection between the Transverse Ranges to the north and the Baja Peninsula to the south, and thus the region serves as an important wildlife connectivity area, although no corridors have been mapped within more than 15 miles of the Proposed Project (Spencer et al. 2010; South Coast Wildlands 2008). The Proposed Project does not include any major streams, rivers, or canyons that would serve as a conduit for wildlife traveling long distances, and therefore concentrations of wildlife movement are not expected within the Proposed Project.

4.2.2 Critical Habitat

There is no federally designated critical habitat for ESA-listed species within or immediately adjacent to the Proposed Project. The nearest critical habitat, which is designated for arroyo toad (*Anaxyrus californicus*), is located 0.5 mile north of the Proposed Project along Sweetwater River.

Within 10 miles of the Proposed Project, there is federally designated critical habitat for a total of five species: San Diego thornmint (*Acanthomintha ilicifolia*), arroyo toad, Quino checkerspot butterfly (*Euphydryas editha quino*), coastal California gnatcatcher (*Polioptila californica californica*), and Laguna Mountain skipper (*Pyrgus ruralis lagunae*) (Figure 4).

Figure 4. Federally Designated Critical Habitat near the Proposed Project

4.2.3 Vegetation and Cover Types

The footprint of the Proposed Project and the surrounding habitats consist of undeveloped chaparral scrub and oak woodlands, with pockets of disturbance dominated by non-native grasses and forbs. Table 1 provides acreages of land cover and vegetation types in the study area, while the sections that follow provide descriptions of these classifications. Figure 5 illustrates the vegetation types traversed by the project. Of the vegetation types present, only one (Engelmann Oak-Coast Live Oak/Poison Oak/Grass Association) is considered a sensitive natural community by CDFW.

A substantial portion of the Proposed Project area immediately south of Bell Bluff Truck Trail (where the SVC facility would be sited) has been subject to repeated human-caused disturbance since at least 1994, based on examination of aerial photographs. Specifically, this area has been disked several times and appears to have been used for grazing. These types of disturbances limit the growth of trees and long-lived woody shrubs, and generally favor fast-growing species and grasses. Portions of the *Quercus engelmannii*-*Q. agrifolia*/*Toxicodendron diversilobum* Association, the *Eriogonum fasciculatum* Association, the Non-native grasslands, and the Ruderal cover type, are included in these disturbed areas.

In addition to the long-standing disturbance, a subsection of this same area was heavily disturbed in 2012 to support the construction of Sunrise Powerlink. The site was stripped of vegetation and topsoil, and then graded, and the site is now an active restoration project. Portions of the *Eriogonum fasciculatum* Association and the Non-native grasslands are included in this recently disturbed area. More recently, a 1.7 acre area on the northwest side of the SVC was recently bladed by the property owner and has been mapped as a ruderal cover type.

4.2.3.1 ENGELMANN OAK-COAST LIVE OAK/POISON OAK/GRASS ASSOCIATION (*QUERCUS ENGELMANNII* – *Q. AGRIFOLIA*/TOXICODENDRON DIVERSILOBUM ASSOCIATION)

Stands of Engelmann oak (*Quercus engelmannii*) and coast live oak (*Q. agrifolia*) occupy the north central and eastern portions of the study area, particularly along streams or in moist declivities. Engelmann and coast live oak woodlands are generally a late successional or climax community in terms of ecological succession. If disturbance is frequent, this plant community is generally excluded. Engelmann and coast live oak trees occur as co-dominants forming a sometimes closed tree canopy with poison oak (*Toxicodendron diversilobum*) in the shrub canopy, and grasses and other herbs forming the herbaceous understory. Common grasses in this association include the non-native slender wild oats (*Avena barbata*), soft chess (*Bromus hordeaceus*), cheatgrass (*B. tectorum*), red brome (*B. madritensis* ssp. *rubens*), and ripgut brome (*B. diandrus*); native grasses include purple needlegrass (*Stipa pulchra*) and muhly grasses (*Muhlenbergia* spp.). Subdominant shrubs vary by location, and often include coastal sage scrub species such as black sage (*Salvia mellifera*), white sage (*S. apiana*), California sagebrush (*Artemisia californica*), laurel sumac (*Malosma laurina*), and bush monkey flower (*Mimulus aurantiacus*).

This association is considered a sensitive plant community. However, the portions of this plant community located immediately south of Bell Bluff Truck Trail (where the SVC facility would be sited) have been subject to repeated disturbance since at least 1994. The understory of the woodland at the eastern edge of the SVC facility location is not fully developed and not typical of this association; it more closely matches the neighboring California Buckwheat Association.

Table 1. Land Cover/Vegetation Types in the Project Area (Acres)*

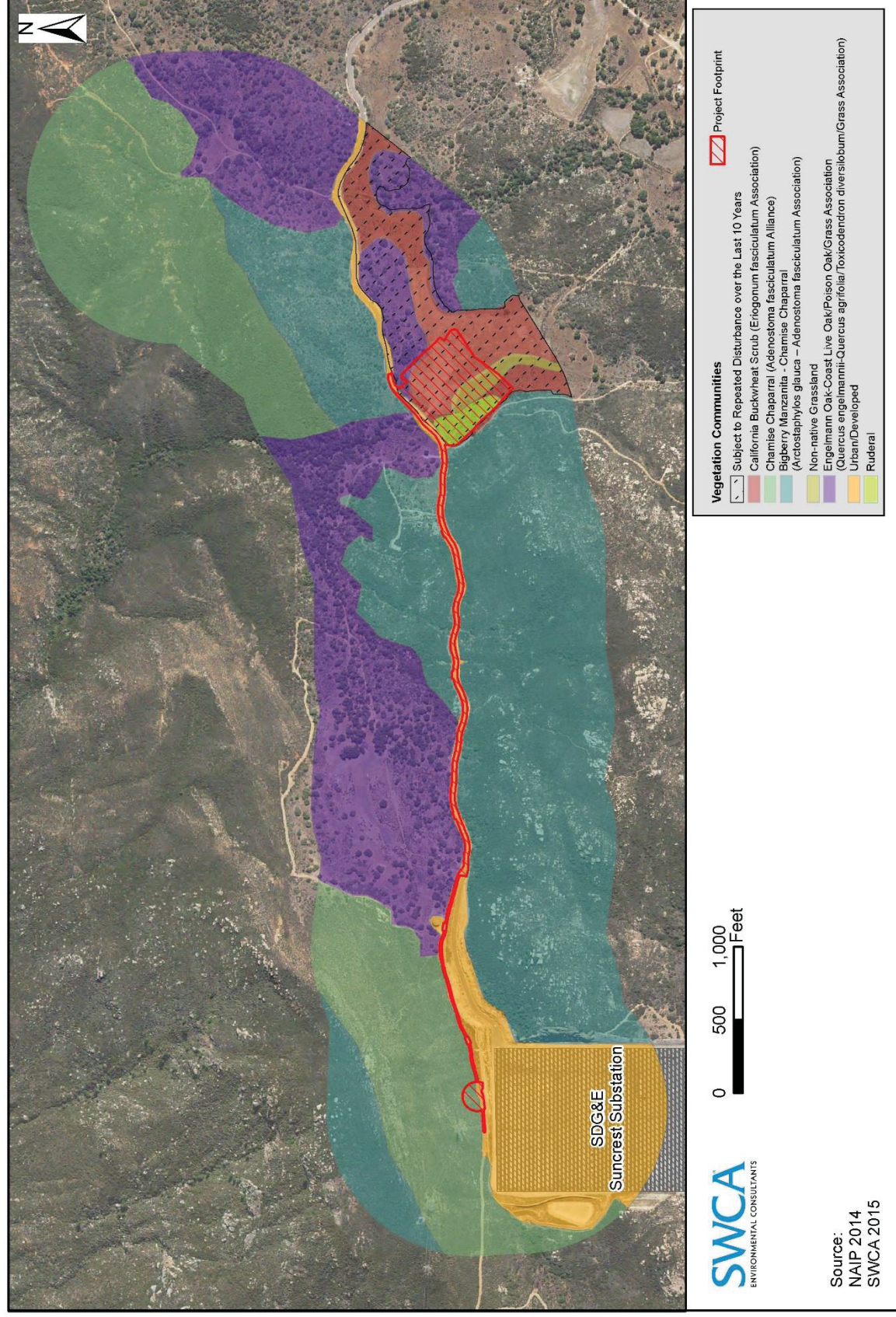
Project Components	Land Cover / Vegetation Types**				
	Engelmann Oak-Coast Live Oak/ Poison Oak/ Grass Association (<i>Quercus engelmannii</i> - <i>Quercus agrifolia</i> / <i>Toxicodendron diversilobum</i> / Grass Association)***	Chamise Chaparral (<i>Adenostoma fasciculatum</i> Alliance)	California Buckwheat Scrub *** (<i>Eriogonum fasciculatum</i> Association)	Bigberry Manzanita – Chamise Chaparral Association (<i>Arctostaphylos glauca</i> – <i>Adenostoma fasciculatum</i> Association)	Non-native Grassland*** Ruderal*** Urban Developed***
SVC Facility and Access Driveways	0.3	--	4.5	--	1.1 1.7 0.1
Underground Transmission Line and Vaults	< 0.1	< 0.1	< 0.1	--	-- 3.1
Riser Pole Area and Tie-in	--	0.4	--	--	-- 0.1

*Acreage includes both temporary and permanent impacts

** Vegetation types follow the California Manual of Vegetation (Sawyer, Keeler-Wolf and Evens 2009) as modified for San Diego County (Evens and San 2005, AECOM et al. 2011)

*** These land cover and vegetation types within the Proposed Project have been subject to repeated disturbance over the past two decades.

Figure 5. Vegetation Communities and Cover Types at the Proposed Project



4.2.3.2 CHAMISE CHAPARRAL (*ADENOSTOMA FASCICULATUM* ALLIANCE)

The *Adenostoma fasciculatum* Alliance (chamise chaparral) occurs in the northwestern and northeastern study area limits within the footprint of the Proposed Project. Chamise chaparral is dominated by sometimes monotypic (single species) stands of the dominant species chamise (*Adenostoma fasciculatum*). This is the dominant dark green scrub of dry slopes, where soils occur over bedrock, forming a dense canopy layer up to 12 feet tall. Generally devoid of an herbaceous layer, other shrubs that typically grow in this alliance include manzanitas (*Arctostaphylos* spp.), chaparral yucca (*Hesperoyucca whipplei*), white sage, laurel sumac, black sage, Mexican elderberry (*Sambucus nigra* ssp. *caerulea*), California buckwheat (*Eriogonum fasciculatum*), and deerweed (*Acmispon glaber*). This association is not a sensitive natural community.

4.2.3.3 CALIFORNIA BUCKWHEAT SCRUB (*ERIOGONUM FASCICULATUM* ASSOCIATION)

There is a stand of California buckwheat south of Bell Bluff Truck Trail that consists of a mix of occasionally disturbed and highly disturbed/planted scrub species heavily dominated by California buckwheat (*Eriogonum fasciculatum*). The planted species are for restoration of a laydown yard used during construction of the SDG&E Sunrise Powerlink. The planting area is located within the Proposed Project. California buckwheat always accounts for at least 50 percent of the absolute shrub cover in this association, but other perennial species such as California sagebrush, deerweed, black sage, and white sage also typically occur, with location variations in shrub species composition.

The highly disturbed area of California buckwheat scrub that was used as a laydown yard is currently actively managed as part of the restoration to exclude non-native species, such as slender wild oats, soft chess, cheatgrass, red brome, ripgut brome, short-pod mustard, and black mustard (*Brassica nigra*). It does not meet the definition of a Diegan or Riversidean coastal sage scrub (which are sensitive communities) due to the almost complete absence of California sagebrush (*Artemisia californica*). The *Eriogonum fasciculatum* Association has a state sensitivity ranking of S4 on a scale of 1 to 6, with communities ranked 1, 2, and 3 considered sensitive. Therefore, this association is not considered a sensitive natural community.

4.2.3.4 BIGBERRY MANZANITA – CHAMISE CHAPARRAL (*ARCTOSTAPHYLOS GLAUCA* – *ADENOSTOMA FASCICULATUM* ASSOCIATION)

On granitic slopes within the study area, chamise sometimes associates with bigberry manzanita (*Arctostaphylos glandulosa*) to form dense, closed canopy, scrub. Scrub oak (*Quercus berberidifolia*), chaparral yucca, and ceanothus species (*Ceanothus* spp.) also grow as subdominant shrubs in this association. Herbaceous layers are uncommon in chamise-dominated scrub, except following fires. The association is not within the Proposed Project footprint, but it is included here because it is immediately adjacent. This association is not a sensitive natural community.

4.2.3.5 NON-NATIVE GRASSLAND

Non-native Grasslands are annual grasslands once dominated by a host of native species, that now form continuous herbaceous layers dominated by non-native grasses and herbs including, slender wild oats, soft chess, cheatgrass, red brome, ripgut brome, red-stemmed filaree (*Erodium cicutarium*), and short-pod mustard (*Hirschfeldia incana*). Native species may include western ragweed (*Ambrosia psilostachya*), lupines (*Lupinus* spp.), doveweed (*Croton setigerus*), and Parish's bluecurls (*Trichostema parishii*).

Within the study area, Non-native Grassland occurs in small patches where past disturbance created favorable conditions for the associated invasive non-native and tolerant native species; a large patch of Non-native Grassland occurs in the laydown yard used during construction of the SDG&E Sunrise

Powerlink, where the SVC facility would be located. This area is being actively managed to promote native vegetation growth. This association is not a sensitive natural community.

4.2.3.6 RUDERAL

Ruderal areas are highly disturbed areas, usually defined as occurring along road edges. Ruderal areas are typically dominated by species that have high rates of seed dispersal, fast growth, and are able to quickly colonize disturbed areas. These areas are usually dominated by non-native species, but a few native species also can survive and thrive. In the vicinity of the Proposed Project, non-native grasses would typically quickly colonize ruderal areas. Bare earth and ruderal land occurs on the northwest side of the SVC site where vegetation has been cleared and the area graded by the property owner for the installation of a temporary water tank.

4.2.3.7 URBAN DEVELOPED

The Urban Developed category is reserved for portions of the study area no longer covered by vegetation. It includes roads, permanent facilities, and other sites paved or built upon that exclude plants. This cover type occurs along the paved road (Bell Bluff Truck Trail) between the SVC facility and the SDG&E Suncrest Substation.

4.3 Drainages and Water Features

The Proposed Project is located within the San Diego Bay watershed. Within this watershed, the Sweetwater River is the central drainage feature. The river flows from east to west through the Sweetwater and Loveland Reservoirs before discharging into San Diego Bay approximately 38 miles west of the Proposed Project.

Localized drainages in the immediate vicinity of the Proposed Project flow toward several high-gradient ephemeral drainages along valley or canyon bottomlands that eventually flow to the Sweetwater River. Due to the Proposed Project's siting along a ridgeline, waters from the area drain both northward and southward from the Proposed Project. Surface waters flowing northward join unnamed streams that eventually flow into the Sweetwater River. Surface waters flowing southward flow into Taylor Creek and several unnamed drainages to the south, all of which eventually flow into the Sweetwater River.

4.3.1 Jurisdictional Waters

In the vicinity of the Proposed Project, three natural drainages, as well as manmade ditches and culverts were identified during reconnaissance-level field assessments (Figure 6). A formal jurisdictional delineation report has not been prepared because the Proposed Project has been designed to avoid impacts to all potentially jurisdictional water features; therefore, no impacts would result from the Proposed Project and no permitting for jurisdictional waters is required.

4.3.1.1 USACE JURISDICTIONAL WATERS

One unnamed ephemeral drainage, which flows north from Bell Bluff Truck Trail, may be subject to USACE jurisdiction (Figure 6). This seasonal stream flows north, then west, and eventually into the Sweetwater River. An OHWM is apparent. The Proposed Project would avoid this feature. Other natural drainage features observed in the vicinity of the Proposed Project either: a) did not exhibit an OHWM, or b) did not have an apparent connection to downstream waters of the United States, and are therefore are not generally considered jurisdictional by the USACE.

Field verifications were conducted in the spring and fall of 2015 to refine the water feature maps, and to determine if any features met the criteria for jurisdiction by the USACE, CDFW, and/or RWQCB. Potential wetlands were investigated based on aerial imagery and literature research.

Test pit soil sampling to assess the potential wetland area identified by SWCA occurred on May 1, 2015. An experienced SWCA wetland delineator conducted a single wetland determination in the declivity open area adjacent to the Wilson Laydown Yard. During the determination, all three wetland indicators (hydrophytic vegetation, hydrology, and hydric soils) were evaluated in accordance with the USACE Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. The wetland delineator also assessed the site for state jurisdictional waters pursuant to the CDFG code section 1600 – 1616. A sampling point was established at a low point in the terrain where the vegetation (primarily nonnative grasses) was denser and taller than the surrounding area, suggesting potentially greater water availability. However, it should be noted that water movement through the declivity is likely to be small in volume due to the lack of stream hydrology (i.e. no bed or bank) or hydric soils.

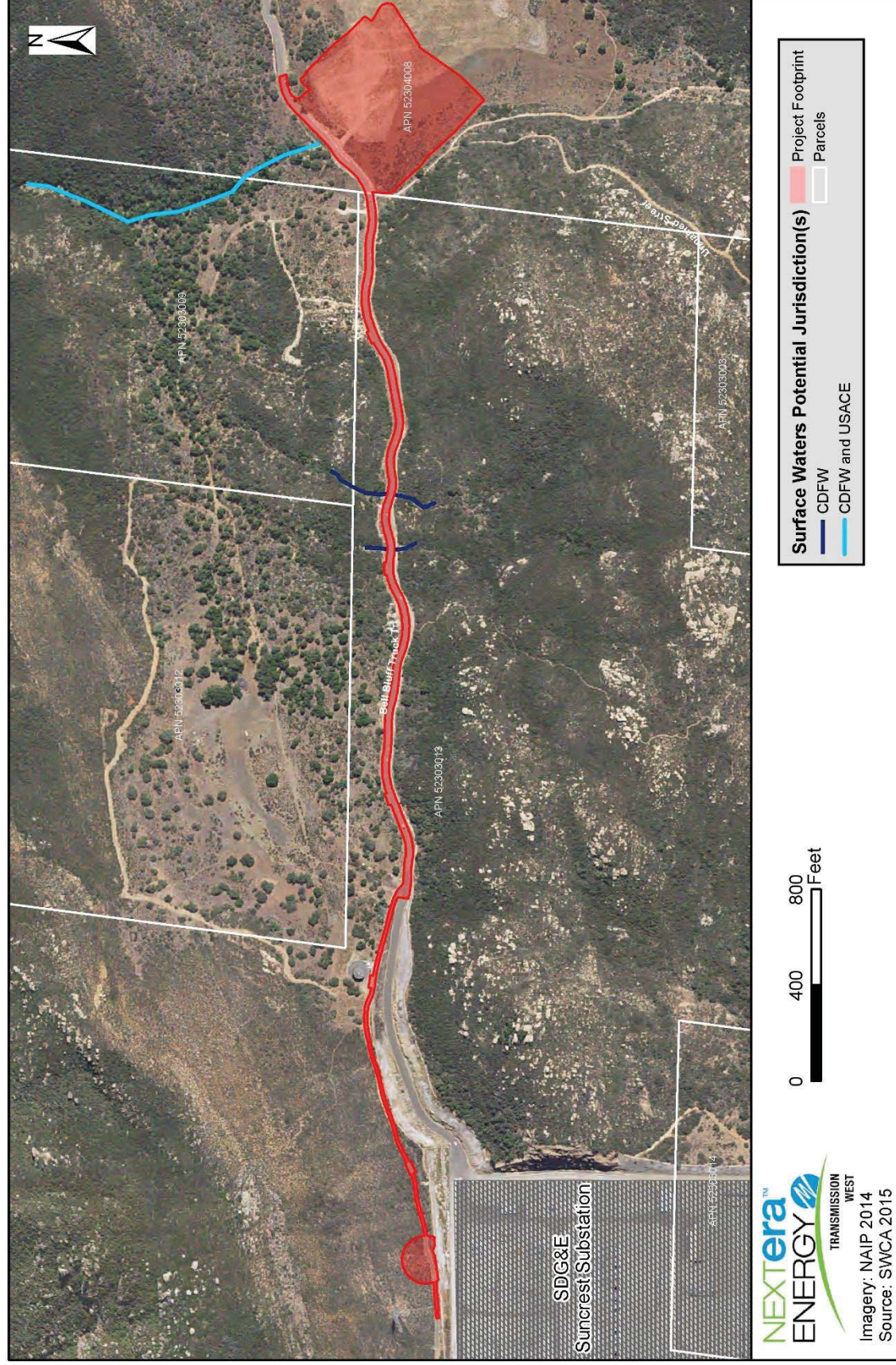
None of the three wetland indicators were present at the sampling point tested. “Normal Circumstances” were determined to be present at that time. In addition, SWCA’s wetland delineator noted several active Botta’s gopher burrows within the declivity downslope of the culvert exit and in the surrounding 10 meters. This species nests in burrows with deep chambers excavated in friable soils. Individuals usually remain in the same burrow system for life. This species would not be able to persist in soils saturated by water (as in a wetland). Based on the absence of any wetland indicators, SWCA determined that the area at issue was not a wetland. As mentioned above, the initial sampling point was selected because it was considered to have the highest likelihood of displaying wetland indicators; therefore, no additional sampling was deemed necessary.

In November 2015, SWCA took an additional five sampling points in the area at issue within the Proposed Project footprint. Four of these samples were taken within the declivity depression. A single, upland control sampling location was also established to compare the differences in soil and vegetation within and outside of the declivity. In addition, recently acquired information supplied by the current landowner, Mr. Wilson, about the location’s history made it apparent that “Normal Circumstances” were not present due to an artificial alteration of the vegetation communities in the Project area. According to Mr. Wilson, the previous landowner had cleared the scrub vegetation from the entire flat topography south of the current Bell Bluff Truck Trail and maintained it as a grassland for livestock grazing. Historic aerial photography from 1954 and 1994 of the Project region verifies that the area was primarily grassland at those instances; however, aerial photography from 2002 shows that scrub vegetation had become reestablished in most of the flat topography, with the exception of the declivity. Aerial photography from 2006 shows the removal of the scrub and indications that the soils in the area were disked.

None of the four sample points in the area at issue within the Proposed Project footprint were found to have indicators of hydric soils or hydrology that are characteristic of wetlands. Facultative wetland species (usually a hydrophyte but occasionally found in uplands) were found at each sampling point, with the exception of the upland control Sampling Point 5, but each point failed the Dominance Test and the Prevalence Index for hydrophytic vegetation. No obligate wetland species were found at the time of the survey. Based on the data collected within the sampling points, the declivity feature within the Project footprint does not meet the established criteria that define a jurisdictional wetland.

Field verifications were conducted in the spring of 2015 to refine the water feature maps, and to determine if any features met the criteria for jurisdiction by the USACE, CDFW, and/or RWQCB. Potential wetlands were investigated based on aerial imagery and literature research. Based on the soils and vegetation observed during field verifications, no wetlands are present within the Proposed Project.

Figure 6. Potentially Jurisdictional Waters near the Proposed Project



The manmade ditches are located along the Bell Bluff Truck Trail and Avenida de los Arboles, and serve to convey runoff from along the roads. They are all concrete lined, and are wholly excavated in uplands. Because of these characteristics, they are not considered waters of the United States by the USACE.

4.3.1.2 CDFW JURISDICTIONAL WATERS AND RIPARIAN HABITATS

Along with the unnamed stream north of the Proposed Project that may be subject to the jurisdiction of the USACE, the two other natural drainages on either side of the paved Bell Bluff Truck Trail, under which the transmission line will be placed, are likely subject to CDFW jurisdiction, along with the riparian-influenced habitats along these drainages. Excavation for the underground transmission line will occur under these culverts and no impacts to natural bed, bank, or riparian vegetation will occur. The culverts will be shored and left undisturbed if possible. If culverts need to be temporarily removed (e.g., in the event blasting was required at the culvert location), work will not occur within 48 hours of a forecasted rain event of 0.5 inches or greater and temporary piping will be onsite to maintain any unexpected water flow. Based on the current design, the connectivity of the waters conveyed by the culverts will remain unchanged during implementation of the Proposed Project.

4.4 Common and Special-status Species

4.4.1 Common Wildlife

Biologists conducting surveys at the Proposed Project recorded all vertebrate wildlife encountered, and did not observe any sensitive animals. A complete list of species observed is located in Appendix B, Faunal Compendium.

Reptiles observed at the Proposed Project included side-blotched lizard (*Uta stansburiana*) and southwestern speckled rattlesnake (*Crotalus mitchellii pyrrhus*).

More than 20 species of birds were recorded, none of which were sensitive. These included year-round residents such as common raven (*Corvus corax*), bushtit (*Psaltirparus minimus*), California thrasher (*Toxostoma redivivum*), house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), oak titmouse (*Baeolophus inornatus*), wrentit (*Chamaea fasciata*), and western scrub-jay (*Aphelocoma californica*). Neotropical migrants that breed in summer at the Proposed Project include ash-throated flycatcher (*Myiarchus cinerascens*), black-headed grosbeak (*Pheucticus melanocephalus*), house wren (*Troglodytes aedon*), lesser goldfinch (*Spinus psaltria*), Anna's hummingbird (*Calypte anna*), and western kingbird (*Tyrannus verticalis*). Migrating species could include a wide array of species for short- and long-distance migratory travel such as raptors and passerines.

Common mammal species observed, detected through sign (burrows, dens, tracks, or scat) or observed directly include coyote (*Canis latrans*), mule deer, and California ground squirrel (*Spermophilus beecheyi*).

4.4.2 Sensitive Species

SWCA biologists reviewed the species with recorded occurrences in the records search area, and evaluated their potential for occurrence at the Proposed Project.

4.4.2.1 SPECIAL-STATUS PLANTS

SWCA biologists and botanists with familiarity of local flora, conducted biological and botanical surveys on the project site to determine presence of special status plants including those listed by state and federal agencies and others based on available data. The data evaluated included the most up to date version of

the CNDDDB at the time of the survey, voucher records from the Consortium of California Herbaria, Inventory of Rare and Endangered Plants of California, published and unpublished technical reports, and peer-reviewed literature. All surveys were conducted in a manner consistent with the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2009). The CDFW Protocols facilitate a consistent and systematic approach to the survey and assessment of special status native plants and natural communities so that reliable information is produced and the potential of locating a special status plant species or natural community is maximized. In addition, this protocol calls for field surveys to be floristic in nature, meaning that every plant taxon that occurs on site is identified to the taxonomic level necessary to determine rarity and listing status, and conducted using systematic field techniques to ensure thorough coverage of potential impact areas.

Based on the preliminary review, SWCA biologists compiled a list of special status plants, as defined by the CDFW 2009 Protocols that were likely to occur on the project site based on site-specific conditions (soils, geology, topography, elevation and associated plant communities). The surveys were floristic in nature, identifying each plant to the taxonomic level necessary to make a presence/absence determination. The surveys were conducted over a period of one year to capture the flowering period of all special status plants on site. When possible, the biologists examined reference sites to determine whether special status species were identifiable at the time of the survey. For example, for the felt-leaved monardella surveys, SWCA botanists visited previously known locations where this species existed to ensure the plant was in bloom and identifiable.

No special-status plants were detected during biological surveys conducted in 2014 or 2015 (Appendix A, Floral Compendium). Of 91 special-status plants with occurrence records within the nine USGS 7.5-minute topographic quadrangles at and surrounding the Proposed Project, 19 have overlapping ranges with and suitable habitat at the Proposed Project (Table 2, Figure 7).

Table 2. Sensitive Plant Species Potential for Occurrence at the Proposed Project

Common Name Scientific Name	Status Federal / State / CRPR	Habitat Associations	Likelihood to Occur in Proposed Project
San Diego thorn-mint <i>Acanthomintha ilicifolia</i>	FT / SE / 1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools. Endemic to active vertisol clay soils of mesas & valleys. Usually on clay lenses within grassland or chaparral communities. ~30–3150 feet. Annual herb.	None
San Diego ambrosia <i>Ambrosia pumila</i>	FE /--/1B.1	Chaparral, coastal scrub, valley and foothill grassland. Sandy loam or clay soil. In valleys; persists where disturbance has been superficial. Sometimes on margins or near vernal pools. ~65–1,360 feet. Perennial herb.	None
singlewhorl burrobush <i>Ambrosia monogyra</i>	--/--/ 2B.2	Chaparral, Sonoran desert scrub. Sandy soils. ~30–1640 feet. Shrub or small tree.	None
Otay manzanita <i>Arctostaphylos otayensis</i>	--/--/ 1B.2	Chaparral, cismontane woodland. Metavolcanic soils with other chaparral associates. ~902–5,580 feet. Erect shrub to small tree.	None

Common Name Scientific Name	Status Federal / State / CRPR	Habitat Associations	Likelihood to Occur in Proposed Project
San Diego sagewort <i>Artemisia palmeri</i>	--/--/ 4.2	Coastal scrub, chaparral, riparian forest, riparian woodland, riparian scrub. In drainages and riparian areas in sandy soil within chaparral and other habitats. ~50–3,000 feet. Biennial to perennial herb.	None
Dean's milk-vetch <i>Astragalus deanei</i>	--/--/ 1B.1	Chaparral, cismontane woodland, coastal scrub, riparian forest. Open, brushy south-facing slopes in Diegan coastal sage, sometimes on recently burned-over hillsides. ~245–2,280 feet. Perennial herb.	None
Jacumba milk-vetch <i>Astragalus douglasii</i> var. <i>perstrictus</i>	--/--/ 1B.2	Chaparral, cismontane woodland, valley and foothill grassland, pinyon and juniper woodland, riparian scrub. Stony hillsides and gravelly or sandy flats in open oak woodland. ~2,950–4,500 feet. Perennial herb.	Moderate potential
San Diego milk-vetch <i>Astragalus oocarpus</i>	--/--/ 1B.2	Chaparral, cismontane woodland. Openings in chaparral or on gravelly flats and slopes in thin oak woodland. ~1,000–5,000 feet. Perennial herb.	High potential
South coast saltscale <i>Atriplex pacifica</i>	--/--/ 1B.2	Coastal scrub, coastal bluff scrub, playas, chenopod scrub. Alkali soils. ~3–1,640 feet. Mat like annual.	None
California ayenia <i>Ayenia compacta</i>	--/--/2.3	Mojavean desert scrub and Sonoran desert scrub. Perennial herb to subshrub.	None
Encinitas baccharis <i>Baccharis vanessae</i>	FT / SE / 1B.1	Chaparral. On sandstone soils in steep, open, rocky areas with chaparral associates. ~195–2,360 feet. Shrub.	None
San Diego goldenstar <i>Bloomeria clevelandii</i>	--/--/ 1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools. Mesa grasslands, scrub edges; clay soils. Often on mounds between vernal pools in fine, sandy loam. ~165–1,525 feet. Perennial herb from corm.	None
Hirshberg's rockcress <i>Boechera hirshbergiae</i>	--/--/ 1B.2	Pebble (or pavement) plains. ~4,600–4,640 feet. Perennial herb.	None
Orcutt's brodiaea <i>Brodiaea orcuttii</i>	--/--/ 1B.1	Vernal pools, valley and foothill grassland, closed-cone coniferous forest, cismontane woodland, chaparral, meadows and seeps. Mesic, clay habitats; sometimes serpentine; usually in vernal pools and small drainages. ~100–5,560 feet. Perennial herb from corm.	None
Round-leaved filaree <i>California macrophylla</i>	--/--/ 1B.1	Cismontane woodland, valley and foothill grassland. Clay soils. ~50–3,930 feet. Annual, biennial herb.	None

Common Name Scientific Name	Status Federal / State / CRPR	Habitat Associations	Likelihood to Occur in Proposed Project
Dunn's mariposa-lily <i>Calochortus dunnii</i>	--/ SR / 1B.2	Closed-cone coniferous forest, chaparral, valley and foothill grassland. On gabbro or metavolcanic soils; also known from sandstone; often associated with chaparral. ~600–6,000 feet. Perennial herb from membranous bulb	None
San Luis Obispo sedge <i>Carex obispoensis</i>	--/--/ 1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Usually in transition zone on sand, clay, or serpentine; in seeps. ~33–2,690 feet. Perennial herb	None
Payson's jewelflower <i>Caulanthus simulans</i>	--/--/ 4.2	Chaparral, coastal scrub. Frequently in burned areas, or in disturbed sites such as streambeds; also on rocky, steep slopes. Sandy, granitic soils. ~295–7,220 feet. Annual herb.	None
Lakeside ceanothus <i>Ceanothus cyaneus</i>	--/--/ 1B.2	Closed-cone coniferous forest, chaparral. ~770–2,470 feet. Shrub, ascending to erect.	None
Otay Mountain ceanothus <i>Ceanothus otayensis</i>	--/--/ 1B.2	Chaparral. Metavolcanic or gabbroic soils. ~1,965–3,610 feet. Shrub, erect.	None
Wart-stemmed ceanothus <i>Ceanothus verrucosus</i>	--/--/ 2.2	Chaparral. ~3–1,250 feet. Shrub.	None
Parish's chaenactis <i>Chaenactis parishii</i>	--/--/ 1B.3	Chaparral. Rocky sites. ~4,265–8,202 feet. Subshrub.	None
Long-spined spineflower <i>Chorizanthe polygonoides</i> var. <i>longispina</i>	--/--/ 1B.2	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Gabbroic clay. ~100–5,020 feet. Annual to perennial herb.	Low potential
Delicate clarkia <i>Clarkia delicata</i>	--/--/ 1B.2	Cismontane woodland, chaparral. Often on gabbro soils. ~770–3,280 feet. Annual herb.	Low potential
San Miguel savory <i>Clinopodium chandleri</i>	--/--/ 1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Rocky, gabbroic or metavolcanic substrate. ~390–3,300 feet. Shrub.	None
Summer holly <i>Comarostaphylis</i> <i>diversifolia</i> ssp. <i>diversifolia</i>	--/--/ 1B.2	Chaparral, cismontane woodland. Often in mixed chaparral in California, sometimes post-burn. ~100–2,600 feet. Shrub to small tree.	None
Snake cholla <i>Cylindropuntia californica</i> var. <i>californica</i>	--/--/ 1B.1	Chaparral, coastal scrub. ~100–500 feet. Shrub, fleshy.	None
Otay tarplant <i>Deinandra conjugens</i>	FT / SE / 1B.1	Coastal scrub, valley and foothill grassland. Coastal plains, mesas, and river bottoms; often in open, disturbed areas; clay soils. ~80–1,000 feet. Annual herb.	None

Common Name Scientific Name	Status Federal / State / CRPR	Habitat Associations	Likelihood to Occur in Proposed Project
Tecate tarplant <i>Deinandra floribunda</i>	--/--/ 1B.2	Chaparral, coastal scrub. Often in little drainages or disturbed areas. ~230–4,000 feet. Annual herb.	Moderate potential
Cuyamaca larkspur <i>Delphinium hesperium</i> ssp. <i>cuyamacae</i>	--/ SR / 1B.2	Lower montane coniferous forest, meadows and seeps, vernal pools. On dried edge of grassy meadows, also described as in mesic sites. ~4,000–5,350 feet. Perennial herb.	None
Cuyamaca Lake downingia <i>Downingia concolor</i> var. <i>brevior</i>	--/ SE / 1B.1	Meadows (mesic), vernal pools. In vernal seeps, lakes and pools, and on mudflats, with <i>Orthocarpus</i> , <i>Limnanthes</i> , <i>Collinsia</i> . ~4,600–4,950 feet. Annual herb.	None
Variegated dudleya <i>Dudleya variegata</i>	--/--/ 1B.2	Chaparral, coastal scrub, cismontane woodland, valley and foothill grassland. In rocky or clay soils; sometimes associated with vernal pool margins. ~10–1,900 feet. Perennial herb, fleshy.	None
Laguna Mountains goldenbush <i>Ericameria cuneata</i> var. <i>macrocephala</i>	--/--/ 1B.3	Chaparral. Endemic to the Laguna Mountains. Among boulders; in crevices in granitic outcrops and in rocky soil. ~3,920–6,070 feet. Subshrub to shrub.	None
Palmer's goldenbush <i>Ericameria palmeri</i> var. <i>palmeri</i>	--/--/ 1B.1	Coastal scrub, chaparral. On granitic soils, on steep hillsides. Mesic sites. ~100–2,000 feet. Stout shrub.	None
Vanishing wild buckwheat <i>Eriogonum evanidum</i>	--/--/ 1B.1	Chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland. Sandy sites. ~3,610–7,300 feet. Annual herb.	None
Abrams' spurge <i>Euphorbia abramsiana</i>	--/--/ 2B.2	Mojavean desert scrub, Sonoran desert scrub. Sandy sites. ~16–3,000 feet. Annual herb.	None
San Diego barrel cactus <i>Ferocactus viridescens</i>	--/--/ 2B.1	Chaparral, Diegan coastal scrub, valley and foothill grassland. Often on exposed, level or south-sloping areas; often in coastal scrub near crest of slopes. ~10–1,500 feet. Perennial herb, fleshy.	None
Chaparral ash <i>Fraxinus parryi</i>	--/--/ 2B.2	Chaparral. Open mixed chaparral and in the chaparral-sage scrub interface in California. ~700–2,035 feet. Shrub to tree.	None
Mexican flannelbush <i>Fremontodendron</i> <i>mexicanum</i>	FE / SR / 1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland. Usually scattered along the borders of creeks or in dry canyons; found on gabbro, serpentine, or metavolcanics. ~33–2,350 feet. Shrub to small tree.	None
Sticky geraea <i>Geraea viscida</i>	--/--/ 2B.3	Chaparral. Loamy coarse sand to gravelly sand soils; often in post burned areas and in bulldozed areas. ~1,475–5,580 feet. Annual, perennial herb.	None

Common Name Scientific Name	Status Federal / State / CRPR	Habitat Associations	Likelihood to Occur in Proposed Project
Mission Canyon bluecup <i>Githopsis diffusa</i> ssp. <i>filicaulis</i>	--/--/ 3.1	Chaparral. Probably in open, grassy places and mesic, disturbed areas; much overlooked. ~1,475–2,300 feet. Annual herb.	None
San Diego gumplant <i>Grindelia hallii</i>	--/--/ 1B.2	Meadows, valley and foothill grassland, chaparral, lower montane coniferous forest. Frequently occurs in low moist areas in meadows; associated genera commonly include <i>Wyethia</i> , <i>Ranunculus</i> , and <i>Sidalcea</i> . ~610–5,725 feet. Perennial herb	Moderate potential
Palmer's grapplinghook <i>Harpagonella palmeri</i>	--/--/ 4.2	Chaparral, coastal scrub, valley and foothill grassland. Clay soils; open grassy areas within shrubland. ~65–3,135 feet. Annual herb.	None
Tecate cypress <i>Hesperocyparis forbesii</i>	--/--/ 1B.1	Closed-cone coniferous forest, chaparral. Primarily on north-facing slopes; groves often associated with chaparral. On clay or gabbro. ~260–4,930 feet. Shrub to tree.	None
Cuyamaca cypress <i>Hesperocyparis stephensonii</i>	--/--/ 1B.1	Closed-cone coniferous forest, chaparral, chaparral, cismontane woodland, riparian forest. Restricted to the southwest slopes of Cuyamaca Peak, on gabbroic rock. ~3,400–5,600 feet. Tree.	None
Laguna Mountains alumroot <i>Heuchera brevistaminea</i>	--/--/ 1B.3	Broadleaved upland forest, chaparral, cismontane woodland, riparian forest. Steep, rocky slopes. ~4,500–6,560 feet. Perennial herb.	None
San Diego County alumroot <i>Heuchera rubescens</i> var. <i>versicolor</i>	--/--/ 3.3	Chaparral, lower montane coniferous forest. Rocky outcrops. ~5,000–13,125 feet. Perennial herb from caudex or rhizome.	None
Ramona horkelia <i>Horkelia truncata</i>	--/--/ 1B.3	Chaparral, cismontane woodland. Habitats in California include: mixed chaparral, vernal streams, and disturbed areas near roads. Clay soil; at least sometimes on gabbro. ~1,320–4,300 feet. Perennial herb.	None
San Diego hulsea <i>Hulsea californica</i>	--/--/ 1B.3	Lower montane coniferous forest, upper montane coniferous forest, and chaparral. Coarse to fine sandy loam in disturbed chaparral openings at high elevations. ~3,000–9,565 feet. Perennial herb	None
Decumbent goldenbush <i>Isocoma menziesii</i> var. <i>decumbens</i>	--/--/ 1B.2	Coastal scrub, chaparral. Sandy soils; often in disturbed sites. ~33–445 feet. Subshrub.	None
San Diego marsh-elder <i>Iva hayesiana</i>	--/--/ 2B.2	Marshes and swamps, playas. River washes. ~33–1,640 feet. Perennial herb to subshrub	None

Common Name Scientific Name	Status Federal / State / CRPR	Habitat Associations	Likelihood to Occur in Proposed Project
Santa Lucia dwarf rush <i>Juncus luciensis</i>	--/--/ 1B.2	Vernal pools, meadows, lower montane coniferous forest, chaparral, and Great Basin scrub. Vernal pools, ephemeral drainages, wet meadow habitats and streamsides. ~985–6,700 feet. Annual herb.	None
Gander's pitcher sage <i>Lepechinia ganderi</i>	--/--/ 1B.3	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland. Usually found in chaparral or coastal scrub; sometimes in Tecate cypress woodland. Gabbro or metavolcanic substrate. ~1,000–3,300 feet. Perennial herb.	None
Robinson's pepper-grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	--/--/ 4.3	Chaparral, coastal scrub. Dry soils, shrubland. ~3–2,900 feet. Annual herb.	None
Short-sepaled lewisia <i>Lewisia brachycalyx</i>	--/--/ 2B.2	Lower montane coniferous forest, meadows. Dry to moist meadows in rich loam. ~4,595–7,545 feet. Perennial herb	None
Lemon lily <i>Lilium parryi</i>	--/--/ 1B.2	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. Wet, mountainous terrain; generally in forested areas; on shady edges of streams, in open boggy meadows & seeps. ~4,000–9,000 feet. Perennial herb from membranous bulb.	None
Parish's meadowfoam <i>Limnanthes alba</i> ssp. <i>parishii</i>	--/ SE / 1B.2	Meadows and seeps, vernal pools. Vernally moist areas and temporary seeps of highland meadows and plateaus; often bordering lakes and streams. ~1,970–5,775 feet. Annual herb.	None
Desert beauty <i>Linanthus bellus</i>	--/--/ 2B.1	Chaparral. Dry slopes and flats; open sandy spots in chaparral, mostly in loamy coarse sandy dg soil types. ~3,280–4,600 feet. Annual herb.	None
Orcutt's linanthus <i>Linanthus orcuttii</i>	--/--/ 1B.3	Chaparral, lower montane coniferous forest. Sometimes in disturbed areas; often in gravelly clearings. ~3,480–6,560 feet. Annual herb.	None
Felt-leaved monardella <i>Monardella hypoleuca</i> ssp. <i>lanata</i>	--/--/ 1B.2	Chaparral, cismontane woodland. Occurs in understory in mixed chaparral, chamise chaparral, and southern oak woodland; sandy soil. ~985–5,170 feet. Subshrub.	High potential
San Felipe monardella <i>Monardella nana</i> ssp. <i>leptosiphon</i>	--/--/ 1B.2	Chaparral, lower montane coniferous forest. Sometimes in openings and fuel breaks or in the understory of forest or chaparral. ~3,940–6,100 feet. Subshrub.	None
Hall's monardella <i>Monardella macrantha</i> ssp. <i>hallii</i>	--/--/ 1B.3	Broad-leaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. ~2,400–7,200 feet. Subshrub.	Moderate potential

Common Name Scientific Name	Status Federal / State / CRPR	Habitat Associations	Likelihood to Occur in Proposed Project
little mouseltail <i>Myosurus minimus</i> ssp. <i>apus</i>	--/--/ 3.1	Vernal pools, valley and foothill grassland. This subspecies has taxonomic problems; distinguishing between this and <i>M. sessilis</i> is difficult. Alkaline soils. ~65–2,100 feet. Annual herb.	None
Baja navarretia <i>Navarretia peninsularis</i>	--/--/ 1B.2	Lower montane coniferous forest, chaparral. Wet areas in open forest. ~4,920–7,960 feet. Annual herb	None
Chaparral nolina <i>Nolina cismontana</i>	--/--/ 1B.2	Chaparral, coastal scrub. Primarily on sandstone and shale substrates; also known from gabbro. ~460–4,185 feet. Perennial herb to shrub.	Low potential
Dehesa nolina <i>Nolina interrata</i>	--/ SE / 1B.1	Chaparral. Typically on rocky hillsides or ravines on ultramafic soils (gabbro or metavolcanic). ~590–2,805 feet. Perennial herb to shrub.	None
Gander's ragwort <i>Packera ganderi</i>	--/ SR / 1B.2	Chaparral. Recently burned sites and gabbro outcrops. ~1,312–3,940 feet. Perennial herb.	None
San Bernardino blue grass <i>Poa atropurpurea</i>	FE /--/ 1B.2	Meadows and seeps. Mesic meadows of open pine forests and grassy slopes, loamy alluvial to sandy loam soil. ~4,465–8,055 feet. Perennial herb from rhizomes.	None
Nuttall's scrub oak <i>Quercus dumosa</i>	--/--/ 1B.1	Closed-cone coniferous forest, chaparral, coastal scrub. Generally on sandy soils near the coast; sometimes on clay loam. ~50–1,312 feet. Shrub.	None
Moreno currant <i>Ribes canthariforme</i>	--/--/ 1B.3	Chaparral, riparian scrub. Among boulders in oak-manzanita thickets; shaded or partially shaded sites. ~1,115–3,940 feet. Shrub.	High potential adjacent to the Proposed Project
Cuyamaca raspberry <i>Rubus glaucifolius</i> var. <i>ganderi</i>	--/--/ 3.1	Lower montane coniferous forest. Open, moist forest; gabbro soils. ~3,940–5,495 feet. Shrub.	None
Munz's sage <i>Salvia munzii</i>	--/--/ 2B.2	Coastal scrub, chaparral. Rolling hills and slopes, in rocky soil. ~377–3,495 feet. Shrub.	Moderate potential
Southern mountains skullcap <i>Scutellaria bolanderi</i> <i>austromontana</i>	--/--/ 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. In gravelly soils on streambanks or in mesic sites in oak or pine woodland. ~1,395–6,562 feet. Perennial herb or shrub	None
Desert spike-moss <i>Selaginella eremophila</i>	--/--/ 2B.2	Sonoran desert scrub, chaparral. Shaded sites, gravelly soils; crevices or among rocks. 656–2,953 feet. Fern, mat like.	None
Cove's cassia <i>Senna covesii</i>	--/--/ 2B.2	Sonoran desert scrub. Dry, sandy desert washes, slopes. 1,000–3,510 feet. Subshrub.	None

Common Name Scientific Name	Status Federal / State / CRPR	Habitat Associations	Likelihood to Occur in Proposed Project
Hammitt's clay-cress <i>Sibaropsis hammittii</i>	--/--/ 1B.2	Valley and foothill grassland, chaparral. Mesic microsites in open areas on clay soils in Stipa grassland. Often surrounded by Adenostoma chaparral. 2,362–3,494 feet. Annual herb.	None
Salt Spring checkerbloom <i>Sidalcea neomexicana</i>	--/--/ 2B.2	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. ~0–5,020 feet. Perennial herb.	None
Prairie wedge grass <i>Sphenopholis obtusata</i>	--/--/ 2B.2	Cismontane woodland, meadows and seeps. Open moist sites, along rivers and springs, alkaline desert seeps. ~985–6,562 feet. Perennial herb.	None
Purple stemodia <i>Stemodia durantifolia</i>	--/--/ 2B.1	Sonoran desert scrub. Sandy soils; mesic sites. ~590–985 feet. Perennial herb.	None
Laguna Mountains jewelflower <i>Streptanthus bernardinus</i>	--/--/ 4.3	Chaparral, lower montane coniferous forest. Clay or decomposed granite soils; sometimes in disturbed areas such as streamsides or road cuts. ~4,593–8,202 feet. Perennial herb.	None
Southern jewelflower <i>Streptanthus campestris</i>	--/--/ 1B.3	Chaparral, lower montane coniferous forest, pinyon-juniper woodland. Open, rocky areas. ~2,953–7,546 feet. Perennial herb.	None
San Bernardino aster <i>Symphyotrichum defoliatum</i>	--/--/ 1B.2	Meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, grassland. Vernal mesic grassland or near ditches, streams and springs; disturbed areas. ~7–6,693 feet. Perennial herb.	None
Parry's tetracoccus <i>Tetracoccus dioicus</i>	--/--/ 1B.2	Chaparral, coastal scrub. Stony, decomposed gabbro soil. ~541–3,280 feet. Shrub.	Moderate potential
Velvety false lupine <i>Thermopsis californica</i> var. <i>semota</i>	--/--/ 1B.2	Lower montane coniferous forest, meadows and seeps, cismontane woodland, valley and foothill grassland. Pine forests and meadow edges, on rocky slopes and outcrops, and along roadsides. ~3,280–6,135 feet. Perennial herb from rhizome.	None

Status Codes:

-- = No status

Federal: FE = Federal Endangered; FT = Federal Threatened;

State: SE = State Endangered; ST = State Threatened; SC = State Candidate; SR = State Rare

California Rare Plant Ranks:

1B = Rare, Threatened or Endangered in California and elsewhere

2 = Rare, Threatened or Endangered in California, but more common elsewhere

3 = Plants about which we need more information – a review list

4 = Plants of limited distribution - a watch list

.1 = seriously threatened in California

.2 = fairly threatened in California

.3 = not very threatened in California

Jacumba Milk-Vetch

Jacumba milk-vetch (*Astragalus douglasii* var. *perstrictus*) occurs in chaparral, cismontane woodland, valley and foothill grassland, pinyon and juniper woodland, and riparian scrub. It is often associated with stony hillsides and gravelly or sandy flats in open oak woodland from approximately 2,950–4,170 feet. Although rare plants surveys have not detected this species at the Proposed Project, there is suitable habitat for this species, and the species has moderate potential to occur.

San Diego Milk-Vetch

San Diego milk-vetch (*Astragalus oocarpus*) occurs in chaparral and cismontane woodland. It is often associated with openings in chaparral or on gravelly flats and slopes in thin oak woodland from approximately 1,000–5,000 feet. Rare plants surveys have not detected this species. There is suitable habitat for this species at the Proposed Project, and this species has a high potential to occur.

Long-Spined Spineflower

Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*) occurs in chaparral, coastal scrub, meadows/seeps, valley and foothill grassland, and vernal pools. It is often associated with clay soil from approximately 100–5,020 feet. Rare plants surveys have not detected this species. There is marginally suitable habitat for this species at the Proposed Project and the species has low potential to occur.

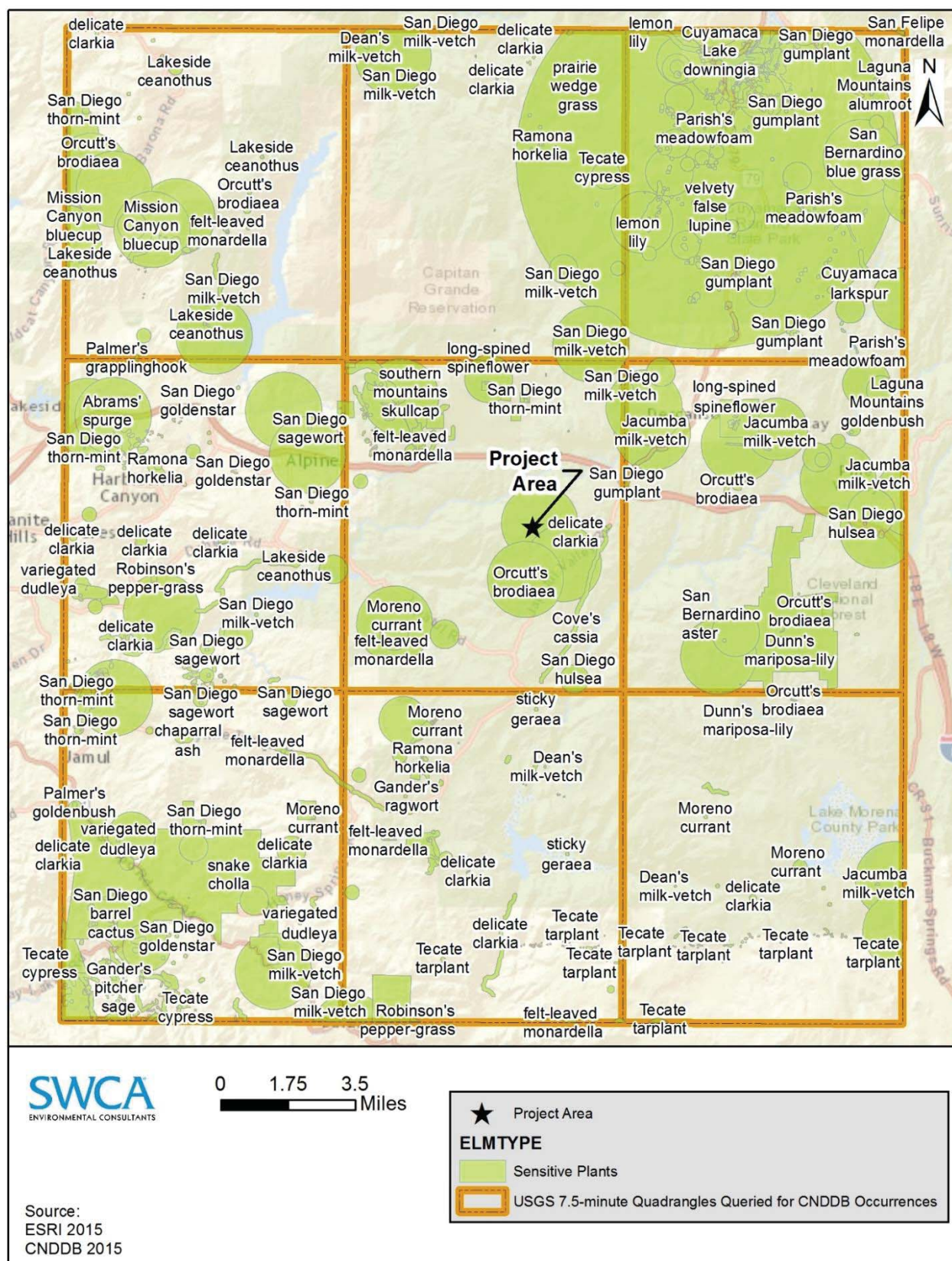
Delicate Clarkia

Delicate clarkia (*Clarkia delicata*) occurs in cismontane woodland and chaparral. It is often associated with gabbro soil from approximately 770–3,280 feet. Rare plants surveys have not detected this species. Although Figure 7 shows a potential for delicate clarkia habitat, surveys indicate that there is marginally suitable habitat for this species at the Proposed Project; therefore, the species has low potential to occur.

Tecate Tarplant

Tecate tarplant (*Deinandra floribunda*) occurs in chaparral and coastal scrub from approximately 230–4,000 feet. Although rare plants surveys have not detected this species, there is suitable habitat for this species at the Proposed Project, and the species has moderate potential to occur.

Figure 7. CNDDDB Records of Sensitive Plants in the Proposed Project Vicinity



San Diego Gumplant

San Diego gumplant (*Grindelia hallii*) occurs in chaparral, lower montane coniferous forest, meadows and seeps, and valley and foothill grassland from approximately 600–5,725 feet. Although rare plants surveys have not detected this species at the Proposed Project, there is suitable habitat present. This species has moderate potential to occur at the Proposed Project.

Felt-leaved Monardella

Felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*) occurs in chaparral and cismontane woodland. It is often associated with sandy soil in the understory of mixed chaparral, chamise chaparral, and southern oak woodland from approximately 985–5,167 feet. Rare plant surveys conducted in 2010 detected this species at the Proposed Project prior to the construction of the Sunrise Powerlink transmission line and Suncrest Substation (Recon Environmental, Inc. 2010b). Rare plant surveys conducted on June 25, 2015, detected a single population of approximately 25 felt-leaved monardella plants adjacent to Bell Bluff Truck Trail in an area outside of the Proposed Project footprint. Figure 8 shows the locations of the historical and observed monardella plants. There is suitable habitat for this species at the Proposed Project, and this species has been determined to be present adjacent to the Proposed Project.

Hall's Monardella

Hall's monardella (*Monardella macrantha* ssp. *hallii*) occurs in broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland from approximately 2,400–7,200 feet. Although rare plants surveys have not detected this species, there is suitable habitat for this species at the Proposed Project, and the species has moderate potential to occur.

Chaparral Nolina

Chaparral nolina (*Nolina cismontana*) occurs in chaparral and coastal scrub. It is often associated with sandstone and shale substrates and gabbro soil from approximately 460–4,200 feet. Rare plants surveys have not detected this species. There is marginally suitable habitat for this species at the Proposed Project, and the species has low potential to occur.

Moreno Currant

Moreno currant (*Ribes canthariforme*) occurs in chaparral and riparian scrub. It is often found among boulders in oak-manzanita thickets or in shaded or partially shaded sites from approximately 1,100–4,000 feet. Rare plants surveys have not detected this species. There is suitable habitat for this species adjacent to the Proposed Project, and this species has a high potential to occur on the north-facing slopes along Bell Bluff Truck Trail.

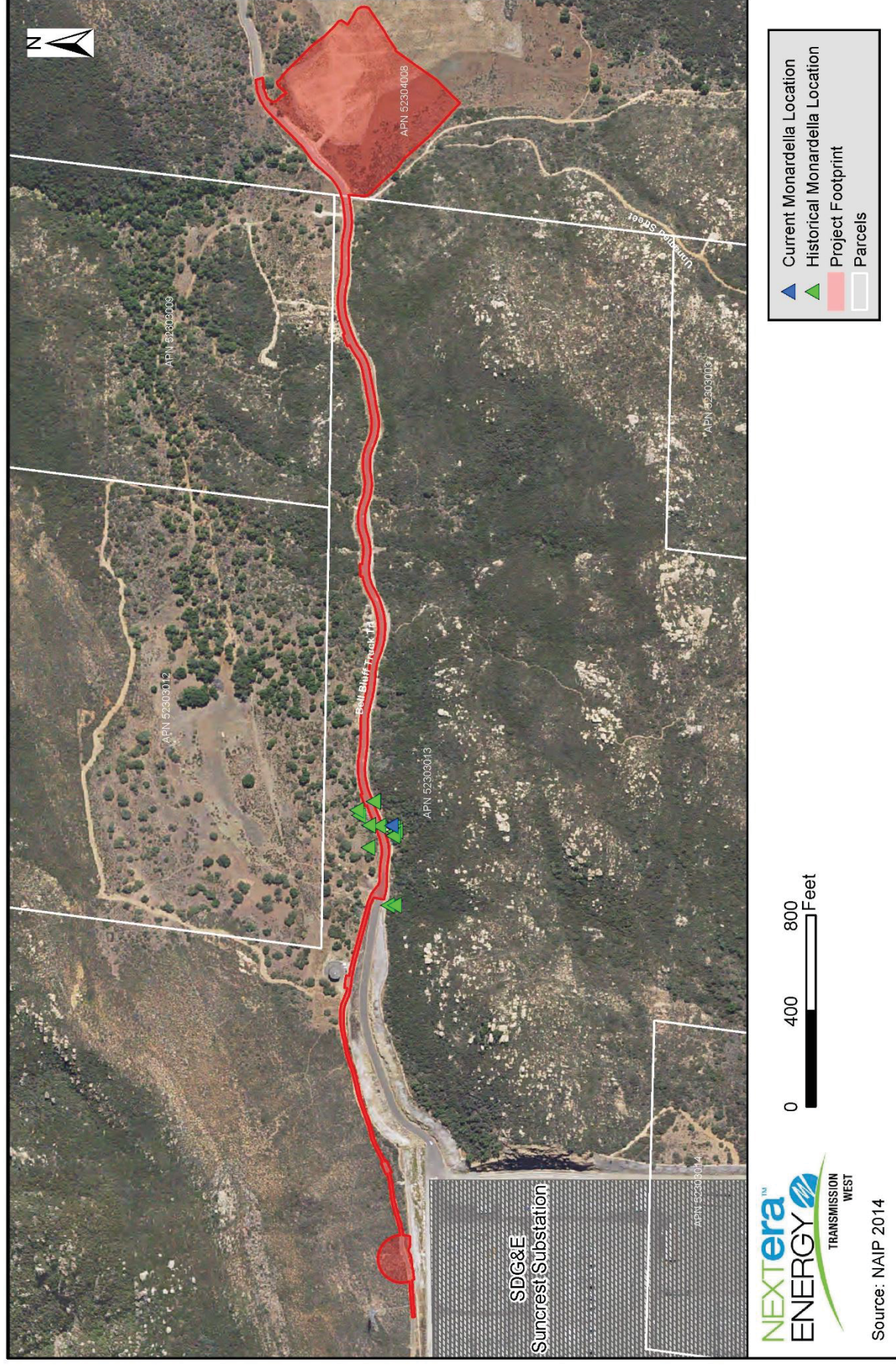
Munz's Sage

Munz's sage (*Salvia munzii*) occurs in chaparral and coastal scrub from approximately 370–3,500 feet. Although rare plants surveys have not detected this species at the Proposed Project, there is suitable habitat. This species has moderate potential to occur.

Parry's Tetracoccus

Parry's tetracoccus (*Tetracoccus dioicus*) occurs in chaparral and coastal scrub from approximately 540–3,280 feet. Although rare plants surveys have not detected this species at the Proposed Project, there is suitable habitat. This species has moderate potential to occur at the Proposed Project.

Figure 8. Felt-leaved Monardella Populations in the Proposed Project Vicinity



4.4.2.2 SPECIAL-STATUS ANIMALS

Based on the literature and database search, a total of 35 special-status animals were determined to have recorded occurrences in the area around the Proposed Project, specifically within one or more of the nine USGS 7.5-minute topographic quadrangles surrounding the Proposed Project (Figure 9). These included five invertebrates, three amphibians, eight reptiles, nine birds, and 10 mammals. Each of these species was evaluated for its potential to occur at the Proposed Project (Table 3).

Table 3. Sensitive Wildlife Species Potential for Occurrence at the Proposed Project

Common Name Scientific Name	Status Federal/State	Habitat Associations	Likelihood of Occurrence
Invertebrates			
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	FE/--	Chaparral, coastal scrub. Dependent on high densities of food plants, including selected <i>Plantago</i> spp., <i>Castilleja exserta</i> , <i>Cordylanthus rigidus</i> , <i>Antirrhinum coulterianum</i> , and <i>Collinsia concolor</i> . Occurs in sunny openings.	None. Concentrations of food plants are lacking; surveys in 2010 were negative (Chambers Group, Inc. 2010).
Thorne's hairstreak <i>Caliphrys thornei</i>	--/--	Only occurs in association with tecate cypress (<i>Cupressus forbesii</i>).	None. No tecate cypress are present.
Harmonious halictid bee <i>Halictus harmonius</i>	--/--	Known only from the foothills of the San Bernardino Mts., possibly also the San Jacinto Mts.	None
Hermes copper butterfly <i>Lycaena hermes</i>	FC/--	Chaparral, coastal scrub. Dependent on spiny redberry (<i>Rhamnus crocea</i>), which is common in cismontane California coastal sage scrub and chaparral vegetation communities.	Moderate potential
Peak shoulderband <i>Helminthoglypta milleri</i>	--/--	This species is known only from the type locality at Cuyamaca Peak in San Diego County, which was located in chaparral habitat.	None
Amphibians			
Arroyo toad <i>Anaxyrus californicus</i>	FE/CSC	Inhabits washes, arroyos, sandy riverbanks, riparian areas with willows, sycamores, oaks, cottonwoods. Extremely specialized habitat needs, including exposed sandy streambanks 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 breeding. Sea level to 3,000 ft. (900 m.)	None
Western spadefoot <i>Spea hammondi</i>	--/CSC	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools, and wetlands. Requires vernal pools for breeding.	None

Common Name Scientific Name	Status Federal/State	Habitat Associations	Likelihood of Occurrence
Coast range newt <i>Taricha torosa</i>	--/CSC	Occurs in coastal drainages from Mendocino County to San Diego County. Requires still or slow-moving water for breeding.	None
Reptiles			
Orange-throated whiptail <i>Aspidocelis hyperythrya</i>	--/CSC	Occurs in chaparral, cismontane woodland, and coastal scrub habitats. Generally prefers washes and sandy areas.	Moderate potential
Red-diamond rattlesnake <i>Crotalus ruber</i>	--/CSC	Chaparral, woodland, grassland, & desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas & dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	High potential
Coast horned lizard <i>Phrynosoma blainvillii</i>	--/CSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial and abundant supply of ants and other insects. Found at elevations from sea level to 8,000 ft.	High potential
Western pond turtle <i>Emys marmorata</i>	--/CSC	Flowing waters with basking sites, generally with aquatic vegetation.	None
California mountain kingsnake (San Diego population) <i>Lampropeltis zonata (pulchra)</i>	--/CSC	Chaparral, cismontane woodland, meadows and seeps, riparian forest, riparian woodland, upper montane coniferous forest, wetlands. Restricted to the San Gabriel and San Jacinto Mts.	None
Coronado Island skink <i>Plestiodon skiltonianus interparietalis</i>	--/CSC	Grassland, chaparral, pinyon-juniper & juniper sage woodland, pine-oak & pine forests in Coast Ranges of Southern California. Prefers early successional stages or open areas. Found in rocky areas close to streams and on dry hillsides. From sea level up to around 8,300 ft.	Moderate potential
Coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	--/CSC	Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites. Occurs at elevations from below sea level to around 7,000 ft.	Moderate potential
Two-striped garter snake <i>Thamnophis hammondi</i>	--/CSC	Marsh and swamp, riparian scrub, riparian woodland, wetlands.	None
Birds			
Tricolored blackbird <i>Agelaius tricolor</i>	--/CE	Nests in dense vegetation near water, typically marshes, agricultural fields (e.g., rice, alfalfa), and riparian woodlands.	None

Common Name Scientific Name	Status Federal/State	Habitat Associations	Likelihood of Occurrence
Golden eagle <i>Aquila chrysaetos</i>	BGEPA/FP	Grasslands, deserts, savannas, and early successional stages of forest and shrub habitats. Broad expanses of open country are required for foraging while nesting is primarily restricted to rugged mountainous areas with large trees or on cliffs.	Moderate potential for foraging; Low potential for breeding
Swainson's hawk <i>Buteo swainsoni</i>	--/CE	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or rows of trees.	Low potential during migration, none during breeding
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	FE/CE	Riparian woodlands with dense vegetation.	None
Coastal California gnatcatcher <i>Poliophtila californica</i>	FT/--	Coastal sage scrub below 2,500 feet.	None
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE/CE	Lowland riparian woodlands with dense vegetation.	None
Mammals			
Pallid bat <i>Antrozous pallidus</i>	--/CSC	Chaparral, coastal scrub, desert wash, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, valley and foothill grassland	Low potential for foraging; Not Expected for roosting
Dulzura pocket mouse <i>Chaetodipus californicus femoralis</i>	--/CSC	Variety of habitats including coastal scrub, chaparral & grassland in San Diego Co. Tends to occur in grass-chaparral edges.	Moderate potential
Northwestern San Diego pocket mouse <i>Chaetodipus fallax</i>	--/CSC	Chaparral, coastal scrub, grasslands, sagebrush, and other habitats in western San Diego County, from sea level to 6,000 feet. Typically in areas with rocks or coarse gravel.	Low potential
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	--/SC and CSC	Broadleaved upland forest, chaparral, chenopod scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, valley and foothill grassland	Low potential for foraging; Not Expected for roosting
Western mastiff bat <i>Eumops perotis californicus</i>	--/CSC	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland	Low potential for foraging; Not Expected for roosting
Western red bat <i>Lasiurus blossevillii</i>	--/CSC	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodlands. Strongly associated with riparian areas.	Low potential for foraging; Not Expected for roosting

Common Name Scientific Name	Status Federal/State	Habitat Associations	Likelihood of Occurrence
California leaf-nosed bat <i>Macrotus californicus</i>	--/CSC	Desert riparian scrub, Sonoran desert scrub. Day roosts in deep caves or tunnels, occasionally in buildings or bridges, where humidity is at least 50 percent. In California, occurs at elevations up to 600 feet.	None
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	--/CSC	Coastal scrub with moderate to dense canopies.	High potential
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	--/CSC	Joshua tree woodland, pinyon and juniper woodlands, riparian scrub, Sonoran desert scrub	Low potential for foraging; Not Expected for roosting
American badger <i>Taxidea taxus</i>	--/CSC	Occurs at low density in many natural and agricultural habitats where soils are friable for digging; in forested areas requires openings or meadows.	Low potential

Status Codes:

-- = No status

Federal: FE = Federal Endangered; FT = Federal Threatened; MBTA = Protected by Migratory Bird Treaty Act; BGEPA = Bald and Golden Eagle Protection Act.**State:** SE = State Endangered; ST = State Threatened; SC = State Candidate; CSC = California Species of Special Concern; FP = Fully Protected.

Based on an assessment of the habitat requirements of the sensitive species with recorded occurrences in the larger vicinity, a total of 17 sensitive animals were determined to have the potential to be present at the Proposed Project. These included one invertebrate, five reptiles, two birds, and nine mammals. Each of these species is discussed individually below.

The Proposed Project footprint lies almost entirely within the area previously impacted by the construction of the Sunrise Powerlink (CPUC and U.S. Department of Interior, Bureau of Land Management 2008). The area of the Proposed Project that coincides with the Sunrise Powerlink Project was subject to habitat assessments, and where warranted, SDG&E conducted surveys for special-status species. SDG&E surveys did not identify and special status species within the area coinciding with the Proposed Project footprint, and identified only two that were near the Proposed Project footprint: the red diamond rattlesnake and the felt-leaved monardella. SDG&E observed the Hermes copper butterfly immediately south of what is now the Suncrest Substation, approximately 0.3 mile from the Proposed Project, well outside of the 150 meter buffer zone. Since those studies were completed, habitats for special-status wildlife are generally less available and/or suitable, due to the temporary and permanent impacts resulting from the construction of the Sunrise Powerlink, including the construction of the Suncrest Substation, the paving of Bell Bluff Truck Trail, and the use of the Wilson Laydown Area as a construction laydown yard and subsequent restoration.

No special-status wildlife species were positively identified during biological surveys conducted in 2014 or 2015. However, there are CNDDDB records of red-diamond rattlesnake (*Crotalus ruber*) at the Proposed Project. In addition, woodrat houses were observed approximately 820 feet north of Bell Bluff Truck Trail (well outside the area that may be directly impacted by the Proposed Project), which could belong to either the special-status San Diego desert woodrat (*Neotoma lepida intermedia*) or the dusky-footed woodrat (*Neotoma fuscipes*), which does not have any special status; these are discussed below.

Invertebrates

Hermes Copper Butterfly

Hermes copper butterfly (*Lycaena hermes*) occurs in chaparral and coastal scrub. Larvae are dependent on spiny redberry (*Rhamnus crocea*), a plant species common in cismontane California coastal sage scrub and chaparral vegetation communities, which is present at the Proposed Project. The historical range of Hermes copper butterfly is limited to San Diego County, California, south to Santo Tomas, in Baja California Norte, Mexico. Today, the butterfly is known to occur primarily in the southwest portion of San Diego County.

The most comprehensive study to date of Hermes copper butterfly found that much suitable habitat within the species' range was unoccupied: only 40% of site with apparently high-quality habitat were occupied (Deutschmann et al. 2011). In the CNDDB, the nearest recorded occurrence of Hermes copper butterfly is approximately 2.5 miles from the Proposed Project. A search of Hermes copper butterfly research and environmental documents for nearby projects yielded additional records that are not (yet) reflected in the CNDDB. The Final EIR/EIS for the Sunrise Powerlink Project reported observations of Hermes copper butterfly, although the information is not entirely consistent within the EIR/EIS. Pages E.4.2-2 and E.4.2-12 indicate that four Hermes copper butterfly individuals were observed in 2007 along an unspecified portion of the Modified Route D Alternative (the Proposed Project is also located along the Modified Route D Alternative), and refers to a map in Appendix 8J that shows three sites which are approximately 8 miles south of the Proposed Project. Also in the EIR/EIS, page D.2-11 refers to Appendix 8R (2008 Survey Results Summary), which states that roughly 80 individuals were observed in 2008 along the "MRD Alternative," which presumably refers to the Modified Route D Alternative. No maps of the survey results are provided in Appendix 8R, but MP numbers are listed which likely refer to mile posts, which suggest that Hermes copper butterflies may have been observed immediately south of the current site of SDG&E's Suncrest Substation. The south edge of the Suncrest Substation is located approximately 0.3 mile (525 meters) from the Proposed Project; this is the nearest known possible observation of Hermes copper butterfly.

Hermes copper butterfly observations were also reported in a technical study conducted in support of the Master Special Use Permit and Permit to Construct Power Line Replacement Projects, located in the Cleveland National Forest, San Diego County (CPUC and U.S. Department of Agriculture, Forest Service 2015). A total of 38 individual Hermes copper butterflies were detected in various locations generally along the Japatul Valley Road in 2010, the closest of which was approximately 1.3 miles east of the Proposed Project.

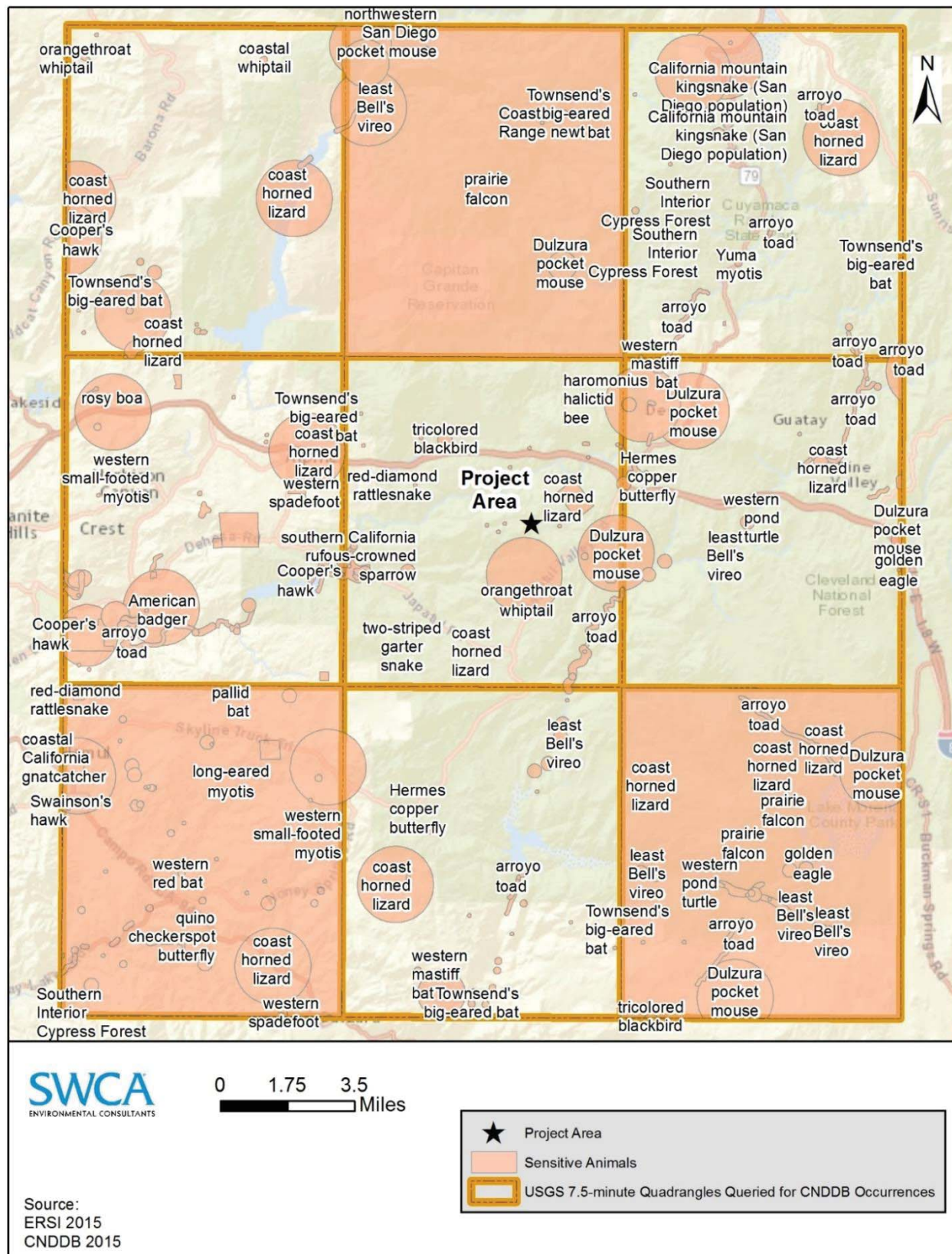
SWCA conducted a detailed habitat assessment for Hermes copper on October 28, 2015, including field surveys for spiny redberry shrubs within 15 feet of California buckwheat, which is the species preferred habitat. Previous general habitat surveys for the Project were conducted in March 2015. However, due to access restrictions on the site at the time of the March 2015 survey, SWCA biologists were unable to survey more than 10 feet off the roadway. Although there is no formal USFWS survey protocol for Hermes copper butterfly, the *County of San Diego Guidelines for Hermes Copper Butterfly (Lycaena hermes)* was used as a general guideline for the survey (County of San Diego 2010). These guidelines state that "any woody (mature) spiny redberry shrub with California buckwheat within 15 feet" is considered potential Hermes copper habitat and should be surveyed. Although surveys were conducted outside of the flight season (mid-May to early-June, and as late as mid-July), the guidelines state that even if Hermes copper is not present in their suitable habitat, any suitable habitat "will be considered potential habitat for the Hermes copper." Additional biological surveys were conducted in mid-May and early-June and biologists did not incidentally observe any butterflies within the Proposed Project during those surveys.

As a result of the March and October surveys, no suitable habitat was identified within the impact footprint of the Proposed Project. However, suitable habitat was identified within the search area, which, during the October survey, included a 150-meter (500-foot) buffer around the Proposed Project. Most of the suitable habitat is located across the street from the SVC site, with additional stands of redberry and buckwheat located within the 150-meter buffer along Bell Bluff Truck Trail. In total, the buffer area surrounding the project contains approximately 36 stands of suitable Hermes copper butterfly habitat.

Considering all of the available data together, it is concluded that the potential for the species' occurrence at the Proposed Project is Moderate. This is based on several variables. First, there is suitable habitat present in close proximity to, but not within the project footprint, which indicates that the species may exist within the 150-meter buffer zone of the Proposed Project. Despite the presence of suitable habitat, there have been no recorded observations of Hermes copper butterfly within the project footprint, with the nearest recorded occurrence of Hermes copper butterfly being approximately 2.5 miles from the Proposed Project. The closest possible observation of Hermes copper butterfly, according to the Sunrise Powerlink EIR/EIS, which does not include maps of the Hermes copper survey results, is approximately 0.3 mile (525 meters) from the Proposed Project. Finally, we have partially based the designation of moderate off the EIR/EIS for the Sunrise Powerlink Project. Despite observing multiple Hermes copper butterflies surrounding that project, the EIR/EIS gave the occurrence designation of low to moderate for this species. Considering the data, and to be consistent with previous relevant CPUC CEQA documents, a moderate occurrence designation is appropriate for the Proposed Project.

~~Hermes copper butterfly (*Lycaena hermes*) occurs in chaparral and coastal scrub. Larvae are dependent on spiny redberry (*Rhamnus crocea*), a plant species common in eismontane California coastal sage scrub and chaparral vegetation communities, and which is present at the Proposed Project. The historical range of Hermes copper butterfly is limited to San Diego County, California, south to Santo Tomas, in Baja California Norte, Mexico. Today, the butterfly is known to occur primarily in the southwest portion of San Diego County. The CNDDB includes records of reports adults and juveniles within two miles of the Proposed Project from 2008. Although biological surveys have not detected this species, the Proposed Project provides suitable habitat for this species, and the species has moderate potential to occur at the Proposed Project.~~

Figure 9. CNDDDB Records of Sensitive Animals in the Proposed Project Vicinity



Reptiles and Amphibians

Orange-throated Whiptail

The orange-throated whiptail (*Aspidocelis hyperythra*) occurs in coastal scrub, chamise chaparral, mixed chaparral, and valley-foothill hardwood habitats, usually where there is sandy soil, at elevations up to 3,400 feet. This species' U.S. range includes western San Diego and Riverside Counties, and southern Orange County. Most of the range is in Mexico, extending along the entire Baja California peninsula. The orange-throated whiptail is very active, preying on a wide range of invertebrates, especially termites. The Proposed Project provides suitable habitat for this species, although it has not been observed to date. This species has moderate potential to occur at the Proposed Project.

Red-diamond Rattlesnake

The red-diamond rattlesnake (*Crotalus ruber*) inhabits open scrub, chaparral, woodland, and grassland vegetation types. This species ranges from approximately Orange and San Bernardino Counties south to Baja California, Mexico, at elevations from sea level to about 5,000 feet. Multiple CNDDDB records of red-diamond rattlesnake indicate this species is present in the vicinity of the Proposed Project. The project site provides potentially suitable habitat for the red-diamond snake and this species has a high potential to occur.

Arroyo Toad

Field surveys conducted for the Proposed Project did not result in observations of potentially suitable habitat for arroyo toad. Arroyo toads occupy aquatic, riparian, and upland and are breeding habitat specialists that require slow-moving streams that are composed of sandy soils with sandy streamside terraces (USFWS 2014). Reproduction is dependent upon the availability of very shallow, still, or low-flow pools in which breeding, egg-laying, and tadpole development occur. Suitable habitat for the arroyo toad is created and maintained by periodic flooding and scouring that modify stream channels, redistribute channel sediments, and alter pool location and form (USFWS 2014). This specialized habitat is not present at the Proposed Project. In addition, a study of arroyo toad was conducted in support of the Sunrise Powerlink (RECON Environmental, 2010). The study used a USFWS habitat model and recorded occurrences of Arroyo toad to identify potentially suitable habitat, and then conducted a field-based visual habitat assessment of these areas in 2009. No potentially suitable habitat was identified that overlaps with the Proposed Project. The closest recorded occurrence of arroyo toad is approximately 0.5 mile from the Proposed Project. Therefore, the species is unlikely to be affected by the project.

Coast Horned Lizard

The coast (San Diego) horned lizard (*Phrynosoma blainvillii*) occurs in open or sparse scrub and chaparral communities and prefers loose soils for burrowing at elevations from sea level to approximately 8,000 feet. It forages mainly on native ant species, and has declined, at least in part, because of introduction of non-native ants, competition from which has resulted in declines in native ant populations. Collecting, development, and off-road vehicle use have also contributed to this species' decline. Multiple CNDDDB records of coast horned lizard are present for the past 2 decades with the most recent observation being closest to the Proposed Project, approximately 1.5 miles to the north. Suitable habitat occurs at the Proposed Project, and this species has a high potential to occur.

Coronado Island Skink

The Coronado Island skink (*Plestiodon skiltonianus interparietalis*) inhabits grassland, chaparral, pinyon-juniper and juniper sage woodland, pine-oak, and pine forests in the Coast Ranges of Southern California. This species prefers early successional stages or open areas. It is commonly found in rocky areas close to streams and on dry hillsides from sea level up to approximately 8,300 feet. A single CNDDDB record from 1995-1999 data describes an occurrence of this species 3 miles south of the Proposed Project. The

Proposed Project provides potentially suitable habitat for the Coronado Island skink and it has a moderate potential to occur at the Proposed Project.

Coast Patch-Nosed Snake

The coast patch-nosed snake (*Salvadora hexalepis virgultea*) inhabits open sandy areas and rocky outcrops in scrub, chaparral, grassland, and woodland vegetation types from sea level to about 7,000 feet. This species ranges along the coast of California from San Luis Obispo County south into Baja California, Mexico. A single CNDDDB record from 1996 describes an occurrence of this species 4 miles west of the Proposed Project at Loveland Reservoir. The Proposed Project provides a limited amount of potentially suitable habitat for the coast patch-nosed snake and it has a moderate potential to occur at the Proposed Project.

Birds

Golden Eagle

Golden eagles (*Aquila chrysaetos*) occur throughout California in a variety of habitats including grasslands, open scrublands, and woodlands. This species typically nests on cliff faces or in large trees or tall artificial structures such as electrical transmission towers. High-quality nest sites with appropriate temperature regimes and winds to provide lift are often a limited resource. Golden eagles are highly site faithful, and typically maintain one or more nests within a territory, often switching between nests from year to year. Active and inactive nests can persist for many years, even decades. Golden eagles typically prey on small to mid-sized mammals, birds, and reptiles. eBird records have documented this species in the area since 1982 and as recently as March 2015 approximately 4 miles northeast of Suncrest Substation. Suitable foraging habitat exists for this species throughout the undeveloped areas at the Proposed Project. No nesting habitat occurs within the Proposed Project. Focused surveys conducted in 2010 and 2011 identified occupied golden eagle nests located approximately 5 miles and approximately 15 miles from the Proposed Project (Wildlife Research Institute 2010, 2011). Another territory has been previously recorded with breeding activity within 1 mile of the Proposed Project, but the nests at the site are believed to have been destroyed at least 8 years ago in wildfires; no nests have been detected in recent surveys of the area despite focused effort (Wildlife Research Institute 2010, 2011).

If golden eagles were to construct a new nest at Bell Bluff, the most suitable sites would be ledges on north-facing rocky outcrops or cliffs. The most likely nest sites have been identified based on inspection of aerial imagery and topographic maps; all are more than 4,000 feet from the Proposed Project (Figure 10). Given that the Suncrest Substation was constructed in 2011 and 2012, vehicle traffic and human activity at the substation and along Bell Bluff Truck Trail are now increased due to security and maintenance needs associated with the substation. Therefore, any golden eagle nests constructed since the last survey would presumably be associated with golden eagles that are acclimated to the current level of normal activity in the area.

This species has a moderate potential to occur for foraging, and has a low potential to occur for nesting.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) breeds in a wide range of open habitats with low vegetation throughout the western U.S., including grasslands, riparian areas, savannahs, and agricultural and ranch lands. In California, Swainson's hawks breed primarily in the Central Valley, from Kern County northward, and no breeding has been recorded in San Diego County. Swainson's hawks migrate to South America for the winter season, and therefore migrants may occur transiently in many habitats in the western U.S. The Proposed Project is outside this species' nesting range, and it is not expected to occur. However, migratory individuals could occur at any location, and therefore there is low potential for migrating Swainson's hawks to occur at the Proposed Project.

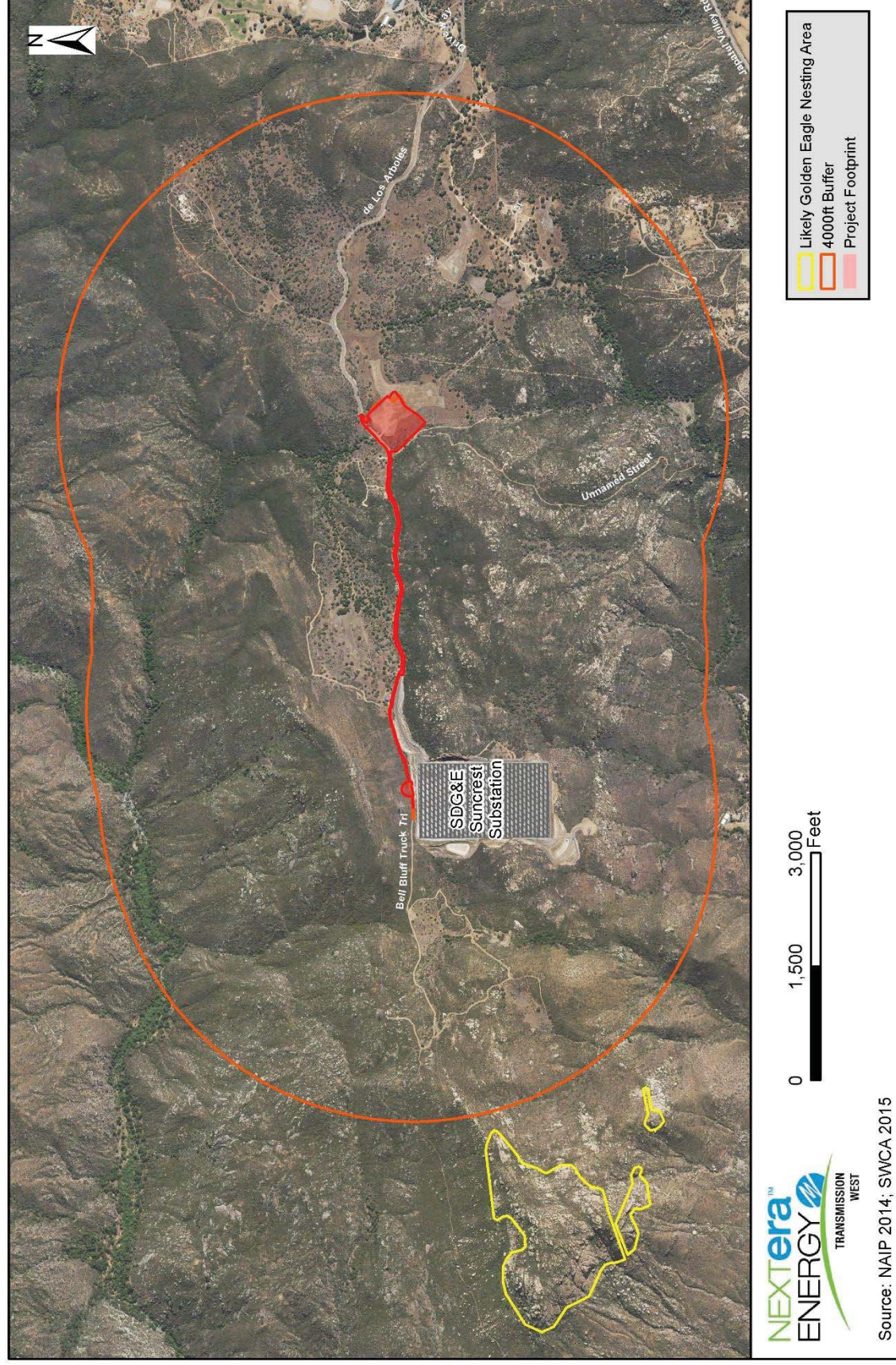
Southwestern Willow Flycatcher

Suitable nesting habitat for southwestern willow flycatcher, which according to the USFWS, includes patchy to dense riparian habitats along streams, reservoirs, or other wetlands dominated by tree or shrub species such as willow, box elder, salt cedar, and cottonwood, is absent from the project site. Moreover, slow moving or still water, or saturated soil is characteristic at or near breeding sites during non-drought years. Due to the lack of suitable nesting habitat, no focused survey was conducted; the species is unlikely to be affected by the Proposed Project.

Mammals***Pallid Bat***

The pallid bat (*Antrozous pallidus*), a California Species of Special Concern (CSC), most commonly occurs in mixed oak and grassland habitats. This large bat roosts in rock crevices and in cavities of trees, especially oaks. This species occurs throughout California except for the high Sierra Nevada from Shasta to Kern Counties and in the northwestern portion of the state (Zeiner et al. 1990). Pallid bat is very sensitive to disturbance at its roosting sites. A single CDNNB record reports this species 2 miles northeast of the Proposed Project. The Proposed Project provides potentially suitable foraging habitat but no suitable roosting habitat for the pallid bat. Therefore, it may occur only on the project site for foraging but is not expected to roost at the Proposed Project.

Figure 10. Potential Golden Eagle Nesting Habitat



Dulzura Pocket Mouse

Dulzura pocket mouse (*Chaetodipus californicus femoralis*), a CSC, occurs in a variety of habitats including coastal scrub, chaparral, and grassland in San Diego County. This species is commonly attracted to grass-chaparral edges. During focused trapping surveys for Stephens' kangaroo rat (*Dipodomys stephensi*), Dulzura kangaroo rat was captured as close as 12 miles south of the Proposed Project (SJM 2010a, 2010b). The Proposed Project provides potentially suitable habitat for Dulzura kangaroo rat, and this species has a moderate potential to occur at the Proposed Project.

Northwestern San Diego Pocket Mouse

The northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), a CSC, inhabits a variety of habitats with sandy areas with herbaceous vegetation and moderate canopy cover, at elevations up to 6,000 feet. Vegetation communities occupied include coastal scrub, chamise chaparral, mixed chaparral, sagebrush, pinyon-juniper woodlands, annual grasslands, and several desert habitat types. In San Diego County, this species is typically found in arid coastal and desert border areas. There is suitable habitat at the Proposed Project for the northwestern San Diego pocket mouse, and the species has a low potential to occur.

Stephens' Kangaroo Rat

No survey was conducted for Stephens' kangaroo rat at the Proposed Project because the species' known range is well north of the project footprint. In addition, there are no Stephens' kangaroo rat occurrences within or near the project site. The closest confirmed occurrence of this species is approximately 21 miles northwest of the project, north of Escondido, California. Therefore, the species is unlikely to be affected by the Proposed Project.

Townsend's Big-Eared Bat

Townsend's big-eared bat (*Corynorhinus townsendii*), a CSC and candidate for CESA listing, occurs in a variety of habitats throughout California, but it is most commonly associated with desert scrub, mixed conifer forest, and pinyon-juniper or pine forest habitat. Townsend's big-eared bats hibernate throughout their range during winter months when cold temperatures prevail. Records of the species exist from throughout the state, but specific details on its distribution are poorly understood. Suitable foraging but no suitable roosting habitat for this species occurs throughout the Proposed Project. This species has a low potential to occur at the Proposed Project for foraging and is not expected for roosting.

Western Mastiff Bat

Western mastiff bat (*Eumops perotis californicus*), a CSC, is found in many open semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, grasslands, palm oases, chaparral, desert scrub, and urban. The western mastiff bat is a very wide-ranging and high-flying insectivore that typically forages in open areas with high cliffs. This species roosts in small colonies in crevices on cliff faces. It occurs in the southeastern San Joaquin Valley and Coastal Ranges from Monterey County southward through southern California, and from the coast eastward to the Colorado Desert. Western mastiff bat has been detected as close as 10 miles south of the Proposed Project in Hauser Canyon (MSCP). The Proposed Project site provides potentially suitable foraging habitat, but no suitable roosting habitat for the western mastiff bat. The western mastiff bat has low potential to forage but is not expected to roost at the Proposed Project.

Western Red Bat

The western red bat (*Lasiurus blossevillei*), a CSC, occurs throughout most of the non-desert areas of California. It breeds primarily in association with riparian areas, especially in the Central Valley. This species roosts in trees, usually near suitable open foraging areas. The oak woodlands at the Proposed Project are suitable roosting and foraging habitat for this species, although the potential for occurrence is considered low due to the lack of riparian habitats.

San Diego Desert Woodrat

The San Diego desert woodrat (*Neotoma lepida intermedia*), a CSC, occurs throughout coastal and desert areas of southern California. This species occurs in woodlands, chaparral, sagebrush, and desert habitats at elevations up to 8,500 feet. Houses are usually built against a rock crevice, at the base of a large plant, or in the lower branches of trees. The range of the dusky-footed woodrat, which is not a special-status species, also overlaps with the Proposed Project. Three woodrat houses, constructed of twigs and sticks, were observed in the oak woodlands approximately 820 feet north of Bell Bluff Truck Trail in May 2015. Both species build these houses, and the species present therefore could not be identified with certainty. The Proposed Project provides suitable habitat for both woodrat species, and there is high potential for occurrence of the San Diego desert woodrat.

Pocketed Free-Tailed Bat

Pocketed free-tailed bat (*Nyctinomops femorosaccus*) occurs primarily in pinyon-juniper woodlands, desert scrub, desert succulent scrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases. It primarily roosts in crevices in rugged cliffs, slopes, and tall rocky outcrops. This species is known to occur in areas with ponds, streams, or arid deserts that provide suitable foraging habitats for this species. This bat occurs in the southwestern U.S. to south-central Mexico. Pocketed free-tailed bat has been detected as close as 10 miles south of the Proposed Project in Hauser Canyon (MSCP). The project site provides limited potentially suitable foraging habitat, but no suitable roosting habitat for this species; therefore, pocketed free-tailed bat has low potential to occur for foraging but is not expected to roost at the Proposed Project.

American Badger

American badger (*Taxidea taxus*), a CDFW species of special concern, is found in open woodlands, desert scrub, grasslands, and open communities generally. Agricultural fields are also suitable, if there is a small mammal prey base. Badgers require friable soils for digging out their small mammal prey, and for constructing dens. This species is widespread but uncommon throughout North America. There is limited suitable habitat at the Proposed Project for American badger, and this species' potential for occurrence is low.

5 APPLICANT-PROPOSED MEASURES AND POTENTIAL IMPACTS

5.1 Significance Criteria

Appendix G of the State CEQA Guidelines provides thresholds to evaluate whether impacts are considered significant. Based upon these guidelines, impacts to biological resources would be considered significant if the project:

- Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the CDFW or USFWS;
- Has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites; or
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

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

5.2 Recommended Applicant-Proposed Measures

The following recommended applicant-proposed measures (APMs) will meet existing regulations and/or requirements or standard practices to avoid, minimize, or reduce potential less than significant impacts on biological resources (Table 4).

Table 4. Recommended Applicant Proposed Measures

APM No.	Description
BIOLOGICAL RESOURCES	
APM-BIO-0	Worker Environmental Awareness Program. Prior to construction, all NEET, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the biological mitigation measures and to comply with the applicable environmental laws and regulations including appropriate wildlife avoidance and impact minimization procedures, the importance of these resources and the purpose and necessity of protecting them, and methods for protecting sensitive biological resources.
APM-BIO-1	Biological Monitor. A qualified biologist or environmental inspector who is familiar with the biological resources and issues at the Proposed Project will conduct monitoring during all construction-related ground disturbing activities that may impact sensitive biological resources, including but not necessarily limited to: initial clearing and vegetation removal; perimeter fence installation and excavation; and movement of construction equipment and other activities outside of fenced/paved areas within wildlife habitat. The biological monitor/environmental inspector will flag or otherwise clearly mark environmentally sensitive areas (ESAs) with appropriate buffers, within which construction is not allowed. The monitor/inspector will have the authority to stop work activities upon the discovery of sensitive biological resources, and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive resources.
APM-BIO-2	Vehicle Use of Existing Roads. Except when not feasible due to physical or safety constraints, all Project vehicle movement will be restricted to existing roads as a part of the project. When it is not feasible to keep vehicles on existing access roads or avoid construction of access driveways during the nesting, breeding, or migration season, the Project Sponsor will perform a site survey, or more as appropriate, in the area where the work is to occur. This survey will be performed to determine presence or absence of special-status nesting birds, or other special-status species in the work area. Parking or driving on unpaved areas underneath oak trees will not be allowed in order to protect root structures. In addition, a 15-mile-per-hour speed limit will be observed on dirt access roads to reduce dust and allow reptiles and small mammals to disperse.
APM-BIO-3	Debris and Litter Removal. Littering will not be allowed in the project area. Project personnel

Table 4. Recommended Applicant Proposed Measures

APM No.	Description
	will deposit all debris and litter into covered garbage containers which will be disposed of when full. Garbage containers will not be allowed to overflow and lids will be secured to prevent wildlife from removing garbage from containers. No food or waste will be left on the ground in the project area, and no biodegradable or non-biodegradable debris will remain in the right-of-way following completion of construction.
APM-BIO-4	<p>Delineating Sensitive Plant Populations. The Proposed Project does not directly impact any sensitive plant populations, although felt-leaved monardella has been observed immediately adjacent to the Proposed Project. To ensure proper protection of these plants on or near the project alignment, a qualified botanist will flag plant populations to be protected and avoided prior to project implementation. The flagging will remain in place until work has ceased and the potential for impacts to the populations has abated. Flagging and demarcation will be updated as necessary. The botanist will also map populations using GPS/GNSS to update project designs for avoidance in the field. If any sensitive plants are encountered during construction, buffers will be established for avoidance. A minimum of 50 feet buffer from an identified special status plant species will be established unless consultation with a qualified biologist determines a reduced buffer would suffice to avoid impacts to the species. If plants cannot be avoided, seed will be collected and used during revegetation efforts following construction.</p>
APM-BIO-5	<p>Vegetation Trimming and Removal. Vegetation trimming and removal will not be conducted during the bird breeding season (February through August) without a pre-activity survey for vegetation containing active nests, burrows, or dens. The pre-activity survey performed by the onsite biological resource monitor will ensure that the vegetation to be cleared contains no active migratory bird nests, burrows, or active dens prior to clearing. If occupied migratory bird nests are present, tree removal/trimming or brush clearing work would be avoided within a buffer determined by the onsite biologist. If no nests are observed, clearing may proceed. Where burrows or dens are identified in the reconnaissance-level survey, soil in the vegetation trimming or removal area would be sufficiently dry before clearing activities occur to prevent mechanical damage to burrows that may be present.</p> <p>Whenever feasible, trees in ESAs, such as areas of riparian or native scrub vegetation, will be scheduled for trimming during non-sensitive (i.e., outside breeding or nesting) times. Where trees cannot be trimmed during non-sensitive times, the Project Sponsor will perform a site survey, or more as appropriate, to determine presence or absence of nesting bird species in riparian or native scrub vegetation. Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed.</p> <p>Nesting Bird Buffers and Management Plan. If active nests of non-special status species birds or common raptors are found, a suitable buffer shall be established around active nests and no construction within the buffer allowed until a qualified biologist has determined that the nest is no longer active (e.g. the nestlings have fledged and are no longer reliant on the nest). Encroachment into the buffer may occur at the discretion of a qualified biologist. If bird nesting is initiated during active construction, the birds will be assumed acclimated to the disturbance and no buffer will be applied; however, direct impacts to active nests will be avoided.</p> <p>Prior to construction, the Project Sponsor shall prepare a Nesting Bird Management Plan. The plan shall include at a minimum: the types of birds that may occur in the Project area; the proposed management strategy for nesting birds; the proposed buffer distances for nesting birds; monitoring, field survey requirements and reporting standards; and nest deterrence strategies.</p>
APM-BIO-6	<p>Harming or Feeding Wildlife. No wildlife, including rattlesnakes, will be harmed except to protect life and limb. Firearms and pets will be prohibited in all Project areas. In addition, feeding of wildlife will not be allowed. This includes keeping trash bins covered and secured at all times until the trash bins are removed from the Project site.</p>
APM-BIO-7	<p>Inspect Excavations for Trapped Wildlife. All steep-walled trenches or excavations used during construction will be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife is located in a trench or excavation, the onsite biological resource monitor will be contacted immediately to remove them if they cannot escape unimpeded. If the</p>

Table 4. Recommended Applicant Proposed Measures

APM No.	Description
	<p>biological resource monitor is not qualified to remove the entrapped wildlife, a recognized wildlife rescue agency may be employed to remove the wildlife and transport them safely to other suitable habitats.</p> <p>Steep-walled trenches and excavations will be fenced and/or covered at the end of each workday to the extent practicable, to prevent wildlife from becoming entrapped and for safety purposes. Alternatively, escape ramps will be installed in trenches or excavation to allow wildlife to exit on their own volition.</p>
APM-BIO-8	<p>Emergency Repairs. Emergency repairs may be required during the construction and maintenance of the project to address situations (e.g., slides, slumps, major subsidence, etc.) that potentially or immediately threaten the integrity of the project facilities. During emergency repairs, APMs will be followed to the fullest extent practicable.</p>
APM-BIO-9	<p>Structures Constructed to Minimize Impacts to Raptors. Structures shall be constructed to conform to “Suggested Practices for Raptor Protection on Power Lines” (Raptor Research Foundation, Inc. 1981) to minimize impacts to raptors. The Project Sponsor will construct all aboveground power transmission lines to the Avian Power Line Interaction Committee (APLIC) Guidelines recommendations: Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006, and Reducing Avian Collisions with Power Lines: State of the Art in 2012.</p>
APM-BIO-10	<p>Restoration and Revegetation. NEET West will develop a Restoration and Revegetation Plan to guide restoration activities on the Proposed Project that promotes locally appropriate native plant growth and eliminates non-native and invasive species. The Restoration Plan will identify measures and success criteria specific to each impacted plant community at the Project. The total area to be planted, and species composition, will be tailored for each impacted plant community based on existing standards and precedents. The Restoration Plan will identify success criteria for each habitat type and develop monitoring measures to ensure that success criteria will be met.</p> <p>Disturbed soils will be revegetated with an appropriate weed-free, native seed mix. All areas designated for temporary impacts will be revegetated with a seed blend that includes native grasses, forbs, and shrub species characteristic of the plant community receiving the temporary impact. Revegetation activities will be undertaken as soon as construction activities have been completed to minimize colonization by non-native weedy species and to ensure compliance with the Proposed Project’s SWPPP. Herbicides, if required, will be applied using hand-held applicators for spot-treatment and will not be used within 100 feet of drainages or sensitive plant populations.</p>
APM-BIO-11	<p>Night Lighting. The Project Sponsor will minimize construction night lighting on adjacent habitats. Exterior lighting within the project area adjacent to habitat will be the lowest illumination allowed for human safety and security, selectively placed, shielded, and directed downward to the maximum extent practicable. Vehicle traffic associated with project activities will be kept to a minimum volume and speed to prevent mortality of nocturnal wildlife species moving about.</p>
APM-BIO-12	<p>Implementation of Best Management Practices. The plans and specifications for the project will require the construction contractor to comply with the project’s SWPPP and reduce the transport of fugitive dust particles related to construction activities through the use of soil stabilization, watering, or implementation of comparable measures. In addition, construction materials and stockpiled soils will be covered or treated in accordance with the SWPPP to ensure that they do not become a source of fugitive dust or sediment. Fugitive dust management areas, including stockpiled soils, will be inspected weekly by the on-site biologist to ensure that they are adequately managed to prevent the generation of fugitive dust.</p> <p>Erosion controls that comply with county, state, and federal standards will be applied, including the implementation of best management practices. Practices such as installation of silt fences, straw wattles, and check dams will be implemented near disturbed areas to minimize and control erosion and sedimentation. Erosion management areas will be inspected and maintained regularly in accordance with the project’s SWPPP.</p>

Table 4. Recommended Applicant Proposed Measures

APM No.	Description
	<p>To minimize potential impacts to the environment from accidental fuel spills, the plans and specifications for the project will specify that all refueling occur in a designated fueling area that includes a temporary berm to limit the spread of any spill; drip pans will be used during refueling to contain accidental releases, and drip pans will be used under the fuel pump and valve mechanisms of any bulk fueling vehicles parked at the construction site; spills will be immediately addressed per the appropriate spill management plan, and soil cleanup and soil removal initiated if needed.</p>
APM-BIO-13	<p>Preconstruction Sweeps for Biological Resources. Prior to initial vegetation clearance, grubbing, and ground-disturbing activities, a qualified biologist will conduct preconstruction sweeps of the project site for special-status wildlife and plants. During these surveys, the biologist will:</p> <ul style="list-style-type: none"> a) Ensure that potential habitats become inaccessible to wildlife (e.g., burrows are removed that would otherwise provide temporary refuge); and, b) In the event of an unanticipated discovery of a special-status ground-dwelling animal, a biologist holding the appropriate state and/or federal permits will recover and relocate the animal to adjacent suitable habitat within the project site at least 200 feet from the limits of grading. c) In the event of the discovery of a previously unknown special-status plant, the area will be marked as an ESA, and avoided to the maximum extent practicable. If avoidance is not possible, the Project Sponsor will consult with USFWS and/or CDFW as appropriate given the species' status.
APM-BIO-14	<p>Nesting Bird Surveys. If construction is scheduled to commence during the non-nesting season (September 1 to January 31), no preconstruction surveys or additional measures with regard to nesting birds and other raptors are required. To avoid impacts to nesting birds in the project area, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within the project site, and within a 150-foot buffer if access allows, for project activities that are initiated during the breeding season (February 1 to August 31). The survey for special-status raptors shall focus on potential nest sites on-site and within a 500-foot buffer around the site. Surveys shall be conducted no more than 14 days prior to construction activities. Surveys need not be conducted for the entire project site at one time; they may be phased so that surveys occur shortly before a portion of the site is disturbed. The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance. Active nests will be avoided and monitored, and the qualified biologists will have authority to stop-work should it be determined that a nest is being impacted by project activity.</p>
APM-BIO-15	<p>Dead or Injured Special-Status Wildlife. If any dead or injured special-status wildlife and birds protected by the MBTA that are discovered at the Proposed Project during construction, the Project Sponsor will stop work in the immediate vicinity. The Project Sponsor will notify the CPUC, the on-call biologist, and the appropriate resource agency (USFWS and/or CDFW) before construction is allowed to resume.</p>
APM-BIO-16	<p>Hermes Copper Butterfly. Prior to the start of vegetation trimming, clearing, or ground-disturbing activities, a qualified biologist will mark all mature spiny redberry (<i>Rhamnus crocea</i>) shrubs as an Environmentally Sensitive Area within which construction activities and worker access are prohibited. During construction, the Biological Monitor (APM BIO-1) will ensure that impacts to spiny redberry are avoided during construction.</p>

5.3 Potential Impacts

Potential project impacts on biological resources were evaluated against the CEQA significance criteria and are discussed in further detail in the following paragraphs. Table 1 outlines the impacted acreages of vegetation communities anticipated by the implementation of the Proposed Project.

The impact analysis includes both temporary and permanent impacts associated with Proposed Project construction. Permanent impacts associated with Proposed Project construction will include the following components:

- A new 300-megavar (Mvar) SVC facility and two new access driveways (20 feet by 95 feet), which will disturb approximately 6 acres;
- An underground 230 kV single-circuit electric transmission line which will be constructed under the existing Bell Bluff Truck Trail roadway (approximately 1 mile);
- A riser pole with an overhead interconnection transmission span between the underground transmission line and the Suncrest Substation (approximately 300 feet); and,
- Up to five underground splice vaults located within the curb line of Bell Bluff Truck Trail. Each vault will be approximately 30 feet long by 7 feet wide by 8 feet deep.

Temporary and short-term impacts associated with project construction will include the following components:

- Temporary work areas needed to facilitate installation of the underground transmission line and underground splice vaults; and,
- The construction footprint surrounding the permanent fenced SVC facility and staging area.

5.3.1 Impacts to Sensitive Species

5.3.1.1 SENSITIVE PLANTS

Three special-status plants have high potential to occur in the Proposed Project: San Diego milk-vetch (CRPR 1B.2), felt-leaved monardella (CRPR 1B.2), and Moreno current (CRPR 1B.3). Six special-status plants have moderate potential to occur in the Proposed Project: Jacumba milk-vetch (CRPR 1B.2), Tecate tarplant (CRPR 1B.2), San Diego gumplant (CRPR 1B.2), Hall's monardella (CRPR 1B.3), Munz's sage (CRPR 2B.2), and Parry's tetradlea (CRPR 1B.2). Three special-status plant species have low potential to occur in the Proposed Project: long-spined spineflower (CRPR 1B.2), delicate clarkia (CRPR 1B.2), and chaparral nolina (CRPR 1B.2).

To date, no special-status plants have been observed within the Proposed Project during surveys conducted between February and June 2015. A CNPS listed 1B.2 plant population of felt-leaved monardella, a small herbaceous plant that blooms between June and August, has been previously recorded along Bell Bluff Truck Trail (adjacent to the Proposed Project). Additional surveys conducted in June 2015 observed a single population of approximately 25 felt-leaved monardella plants. However, due to access restrictions on SDG&E property, the botanists were unable to survey more than 10 feet from the Bell Bluff Truck Trail, and therefore unable to confirm the full extent of this particular population.

The underground transmission line will primarily be installed within the paved roadbed of Bell Bluff Truck Trail. Work areas outside the roadbed have been designed to avoid any populations of felt-leaved monardella to the maximum extent practicable. Therefore, no impacts to this or any other sensitive plants are anticipated.

If the design of the underground transmission line changes and the loss of a population/stand of felt-leaved monardella is unavoidable, seed will be collected for use during restoration of temporary impact areas. Restoration of this sensitive plant will occur within the Proposed Project if possible. Plant establishment may be feasible for felt-leaved monardella because monardellas are normally easily

propagated from seeds and other perennial monardella species have been successfully restored when they are restored to their native parent soil and are carefully maintained in nurseries (Fiedler and Howald 1991; Schmidt 1980). To ensure successful propagation of the species, the following measures will be implemented:

- Seeds of the felt-leaved monardella will be collected from the project impact area during the appropriate developmental stage of the plants (June to August primarily) and broadcast in areas to be restored.
- Some of the seeds will be stored/germinated and grown for seed production in a nursery familiar with growing native plants, such as Rancho Santa Ana Botanical Garden.
- A Sensitive Plant Mitigation and Monitoring Plan will be developed to provide for the long-term protection of felt-leaved monardella populations established within the Proposed Project. The plan shall define procedures and provide guaranteed funding for seed collection, transplanting, and monitoring and achieving success criteria. Annual monitoring will occur for a minimum of 5 years.
- Contingency measures will be included in the plan to ensure plant establishment and success.

In addition, impacts to special-status plants newly discovered prior to or during construction will be avoided and minimized by the implementation of APM BIO-5 and BIO-16. Plants can be damaged or destroyed as a result of vegetation removal or trimming activities before construction, by project vehicles traveling on access roads, by staging project vehicles and equipment in work areas and pull sites, and/or by drilling and pouring of foundations for new tubular steel poles. Such impacts will be reduced and avoided by the avoiding special-status plants, by identifying any during preconstruction sweeps and flagging and avoiding them (APM BIO-4, APM BIO-13, and BIO-16), as overseen by the biological monitor during construction (APM BIO-1 and BIO-16), and through worker education and training (APM BIO-0).

Special-status plants also can be indirectly affected by soil compaction and the spread of nonnative invasive species from project vehicle and equipment travel and staging. These impacts will be avoided and minimized through worker awareness of the plants' locations (APMs BIO-0, BIO-1, and BIO-13, and BIO-16). In addition, impacts to root systems of oak trees will be avoided by prohibiting parking underneath such trees (APM BIO-2).

Applicant-proposed measures that benefit both common and special-status plants include minimization of impacts to vegetation (APM BIO-10) and revegetation of temporary impact areas (APM BIO-12).

5.3.1.2 SPECIAL-STATUS ANIMALS

No special-status wildlife was recorded at the Proposed Project as a result of the directed surveys conducted in 2015. However, several special-status animals do have some potential to occur, and the red-diamond rattlesnake, a CSC, has been recorded close to the Proposed Project and has a high potential to occur. Two additional species have a high potential to occur at the Proposed Project: coast horned lizard and San Diego desert woodrat; both are CSCs. Six special-status animals have a moderate potential to occur: Hermes copper butterfly (federal candidate for ESA listing), orange-throated whiptail (CSC), Coronado Island skink (CSC), Coast patch-nosed snake (CSC), golden eagle when foraging (protected by BGEPA and State Fully Protected), and the Dulzura pocket mouse (CSC). Species with a low potential to occur at the Proposed Project include Swainson's hawk (State Endangered), pallid bat (CSC), northwestern San Diego pocket mouse (CSC), Townsend's big-eared bat (State Candidate and CSC),

western mastiff bat (CSC), western red bat (CSC), pocketed free-tailed bat (CSC), and American badger (CSC).

Due to the lack of observations of special-status animals at the Proposed Project during surveys conducted in 2015, the limited number of special-status species that could occur, and the small footprint of the project in relation to local and global ranges and populations of these species, impacts to special-status animals are anticipated to be less than significant.

Permanent effects to these species, except for the bats, could include mortality from construction traffic, vegetation removal/clearing, and soil grading and contouring. These will be avoided through awareness and avoidance of the locations of special-status animals, should they occur (APMs BIO-0, BIO-1, BIO-13, BIO-5, ~~and BIO-15~~, and BIO-16). Avoiding these locations (APMs BIO-1, BIO-13, BIO-5, ~~and BIO-14~~, and BIO-15) will avoid impacts. In addition, vegetation removal will be minimized to further reduce the potential for impacts (APM BIO-~~105~~).

Temporary impacts could include harm or injury during construction resulting from vehicles, litter, wildlife feeding, domestic pets, entrapment in excavations, all of which will be avoided (APMs BIO-0, BIO-1, BIO-2, BIO-7, BIO-8, ~~and BIO-15~~, and BIO-16). Temporary effects also include ground disturbance and night lighting which may affect the species' daily activity patterns, which will be minimized by APM BIO-11. Fugitive dust could impact habitat quality; this will be minimized by APM BIO-12. Vegetation removal could provide increased opportunity for predation of special-status insects and small mammals; this will be minimized by APM BIO-10. No permanent effects are anticipated for bat species. Temporary effects include night lighting and vegetation removal which might affect foraging opportunities, these will be minimized by APMs BIO-5 and BIO-11.

Dulzura pocket mouse (a CSC) has moderate potential to occur in the Proposed Project. Permanent effects include loss of habitat, which will be reduced by minimization of disturbance areas (APMs BIO-3 and BIO-5), site restoration (APM BIO-10). The chances of mortality from construction activity will be minimized by APMs BIO-0, BIO-1, BIO-2, BIO-8, BIO-13, and BIO-15. The effects of night lighting, which could affect the species' daily activity patterns will be minimized by implementation of APM BIO-11.

5.3.1.3 COMMON BIRDS

The Proposed Project region is known to support a variety of State or federally protected bird species and suitable habitat for many birds protected under the MBTA and California Fish and Game Code Section 3503. Golden eagle (protected by the Bald and Golden Eagle Protection Act, and Fully Protected by the State) may forage in the area, but is not expected to breed in the vicinity of the Proposed Project. Swainson's hawk (State Endangered) has a low potential to occur occasionally during migration, but the Proposed Project is outside the species' breeding and wintering ranges. The Proposed Project is anticipated to have impacts to nesting and breeding birds that are less than significant.

Golden eagles are known to occur in the region and have been observed foraging near the Proposed Project. These birds can have extremely large home ranges (i.e., over 160 square miles) and would be expected to prey on many of the small mammal species that occur in the vicinity of the Proposed Project. SWCA biologists did not identify golden eagles in the vicinity of the Proposed Project during surveys. The Proposed Project site does not support suitable nesting habitat for this species. Potential foraging habitat occurs throughout the Proposed Project, although foraging opportunities are limited at the substation expansion site and pole replacement area due to the proximity of development and human activity.

The project has the potential to permanently impact these species through loss of habitat. Permanent impacts will be decreased by minimizing vegetation disturbance during construction (APMs BIO-3 and

BIO-5), and restoration (APM BIO-10). In addition, permanent electrocution and collision hazards that can be posed by transmission infrastructure will be minimized through design elements (APM BIO-9).

Temporary direct impacts to nesting birds include ground-disturbing activities associated with construction of the Proposed Project, including the dynamic reactive power support facility, construction of the tie-line, improvements of the access road, and other areas from vehicle traffic, increased noise levels from heavy equipment, increased human presence, nest destruction or removal during vegetation removal or trimming, and exposure to fugitive dust. Construction during the breeding season could result in the displacement of breeding birds and the abandonment of active nests. Adult birds can leave the Proposed Project to avoid direct harm, but active nests could be impacted. Impacts to nests will be avoided and minimized by APMs BIO-0, BIO-1, BIO-2, BIO-5, BIO-14, and BIO-15.

5.3.2 Impacts to Riparian Habitats and Sensitive Natural Communities

To minimize environmental impacts, the proposed SVC has been sited in an area that was previously used as a staging area during construction of Sunrise Powerlink. The staging area, also called the Wilson Laydown Area, was highly disturbed and completely graded at that time. In addition to the recent grading of the Wilson Laydown Area, all of the lands south of the Bell Bluff Truck Trail, including the Wilson Laydown Area, have been subject to repeated disturbance dating back to at least 1994, prior to Sunrise Powerlink. Figure 2 depicts the extent of disturbance from a review of historic aerial photography.

The proposed SVC will impact up to 0.3 acre of previously-disturbed Engelmann Oak-Coast Live Oak/Poison Oak/Grass Association that is adjacent to the WLA and immediately adjacent to, and south of, Bell Bluff Truck Trail which was widened and paved as part of Sunrise Powerlink. This association is classified as a sensitive natural community. However, as stated earlier, the area where impacts are planned has been subject to occasional disturbance (mowing and disking) since at least 1994 and the understory at this location is not fully developed and not typical of this associated, more closely matching the neighboring California Buckwheat Association. Additionally with regard to mitigation for impacts, the Sunrise Powerlink Final EIR/EIS states on page E.4.2-5:

“Impacts to non-native vegetation, developed areas, and disturbed habitat would be adverse but less than significant (Class III), and no mitigation is required.” (CPUC 2008)

As a result of this area’s repeated disturbance, impacts to this vegetation community within the northeast portion of the SVC site will be less than significant.

Two streams that are potentially subject to CDFW jurisdiction are present on either side of Bell Bluff Truck Trail with culverts located under the road where the transmission line will be installed. It is anticipated that the underground transmission line will be installed underneath these culverts, with the culverts left in place and shored. However, in the unlikely event that blasting is required at the culvert location, temporary culvert removal may occur. Based on preliminary geotechnical analysis, localized, low-energy blasting may be required for transmission line and splice vault excavations on less than 10% of the transmission line. If culverts need to be temporarily removed, work would not take place within 48 hours of a forecasted rain event of 0.5 inches or greater, temporary piping would be maintained onsite as a backup precaution to maintain any unexpected flows, and no work would take place in the potentially jurisdictional features on either side of the road. Based on the current design, the connectivity of the waters conveyed by the culverts will remain unchanged during implementation of the Proposed Project and impacts will be less than significant.

The potential for indirect impacts to wetlands was considered for the Proposed Project. No wetlands were identified at or near the Proposed Project as a result of SWCA’s desktop and field studies. The closest

delineated wetland, as identified by the NWI (2014) is approximately 425 feet north of the Proposed Project. The vegetated declivity identified near the proposed SVC facility, for which a wetland delineation was conducted, was determined not to be a wetland. As a result, it was determined that there are no wetlands near the Proposed Project that would be subject to direct or indirect impacts. In addition, many of the surface waters in the Proposed Project area do not have an apparent connection to downstream waters, essentially transitioning from shallow semi-confined flow paths to overland sheetflow.

The potential for indirect impacts to any type of habitat, wetland or upland, would be avoided and minimized with the implementation of APM BIO-12, Implementation of Best Management Practices. This APM was included as part of the Proposed Project to control fugitive dust and manage stormwater, erosion, and fuel spills, should they occur at the project site, to minimize off-site impacts. Prior to construction, NEET West will prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) per APM GEO-3 and a Hazardous Materials and Waste Management Plan that includes protocols for spill prevention and response per APM HAZ-1. NEET West has proposed the construction of a stormwater system and detention pond as part of the project within the SVC site to manage the water quality, quantity, and velocity of post-construction drainage. Therefore, indirect impacts to wetlands (or any other off-site areas) will be less than significant.

5.3.3 Impacts to Federal Wetlands and Waters

The Proposed Project has been designed to completely avoid impacts to waterways and wetlands. There is one ephemeral stream that is likely USACE jurisdictional on the north side of Bell Bluff Truck Trail (Feature 3); the Proposed Project would avoid this area completely. Therefore, there will be no impact.

5.3.4 Impacts to Wildlife Movements and Migratory Corridors

The Proposed Project is located adjacent to existing roads and structures and outside of any established migratory corridors. Terrestrial animals, such as mule deer and coyote, may use the Proposed Project for local migratory activity. Temporary disturbance of any local migratory activity may occur during project construction as a result of increased vehicular traffic, noise, and human presence. Permanent disturbance of local migratory activity will be limited to occasional operation and maintenance of the Proposed Project. Maintenance of the SVC facility will not go beyond what is already occurring to operate and maintain the nearby existing SDG&E Suncrest Substation. Therefore, the project will not interfere substantially with the movement of any native resident wildlife species, nor impede the use of any wildlife nursery sites. The project will not include any in-water construction and, therefore, will not interfere with the movement of migratory fish. Therefore, impacts are anticipated to be less than significant.

5.3.5 Conflicts with Local Policies or Ordinances

The San Diego County General Plan provides several policies related to preservation of habitat and resource protection. Applicable policies are provided below.

- **COS-2.1, Protection, Restoration and Enhancement:** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.
- **COS-2.2, Habitat Protection through Site Design:** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

- **COS-1.9, Invasive Species:** Require new development adjacent to biological preserves to use non-invasive plants in landscaping. Encourage the removal of invasive plants within preserves.
- **COS-3.1, Wetland Protection:** Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.
- **COS-3.2, Minimize Impacts of Development:** Require development projects to:
 - 1) mitigate any unavoidable losses of wetlands, including its habitat functions and values; and,
 - 2) Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging or adding fill material, exposure to pollutants such as nutrients, hydro-modification, land and vegetation clearing, and the introduction of invasive species.

Environmental factors have been considered and incorporated into the siting and design of the Proposed Project. To avoid new resource impacts, The Proposed Project has been co-located in areas that have been subject to prior disturbance to the extent possible. In addition, the size of the SVC facility and associated access roads have been minimized to minimize loss of natural habitat, which will also be promoted by the implementation of APM BIO-10. Following construction, any temporary work areas will be returned to pre-construction conditions and native seed mixes appropriate for the site-specific project area will be utilized to revegetate disturbed areas and minimize the potential for invasive species (APM BIO-11). Impacts to wetlands, streams, lakes, and riparian areas have been completely avoided by project design.

Overall, implementation of the Proposed Project is anticipated to have no conflict with local policies or ordinances relating to biological resources, and therefore no impacts are anticipated.

5.3.6 Conflicts with an Approved Habitat Conservation Plan

There are no adopted plans applicable to the Proposed Project. The Proposed Project is located within the San Diego County MSCP area, but the MSCP has not been implemented for eastern San Diego County; however is in the planning stages. No special-status species were observed in the Project Area during 2015 surveys, including MSCP-covered species. In addition, APMs would further reduce impacts to wildlife and their habitats. Therefore, no conflicts with the MSCP are anticipated.

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Appendix A. Floral Compendium

Table A-1. Plant Compendium

Common Name	Scientific Name
Angiospermae – Flowering Plants	
Dicotyledones	
Adoxaceae – Muskroot Family	
blue elderberry	<i>Sambucus nigra</i>
Anacardiaceae – Sumac Family	
laurel sumac	<i>Malosma laurina</i>
skunkbush	<i>Rhus aromatica</i>
sugar bush	<i>Rhus ovata</i>
western poison oak	<i>Toxicodendron diversilobum</i>
Apiaceae – Carrot Family	
southern umbelwort	<i>Tauschia arguta</i>
Apocynaceae – Dogbane Family	
milkweed	<i>Asclepias fascicularis</i>
Indian milkweed	<i>Asclepias eriocarpa</i>
Asteraceae (Compositae) – Sunflower Family	
common yarrow	<i>Achillea millefolium</i>
common Fiddleneck	<i>Amsinckia intermedia</i>
California sagebrush	<i>Artemisia californica</i>
tarragon	<i>Artemisia dracunculus</i>
mule fat	<i>Baccharis salicifolia</i> ssp. <i>salicifolia</i>
clustered tarplant	<i>Deinandra fasciculata</i>
daisy sp.	<i>Erigeron</i> sp.
golden yarrow	<i>Eriophyllum confertifolium</i> var. <i>confertiflorum</i>
California matchweed	<i>Gutierrezia californica</i>
telegraphweed	<i>Heterotheca grandiflora</i>
smooth cat's ear**(moderate)	<i>Hypochaeris glabra</i>
Menzies' goldenbush	<i>Isocoma menziesii</i>
California goldfields	<i>Lasthenia californica</i>
prickly lettuce*	<i>Lactuca serriola</i>
scale-broom	<i>Lepidospartum squamatum</i>
pineapple weed*	<i>Matricaria discoidea</i>
California everlasting	<i>Pseudognaphalium californicum</i>
common dandelion*	<i>Taraxacum officinale</i>
Boraginaceae – Borage Family	
fiddleneck	<i>Amsinckia</i> sp.
prickly cryptantha	<i>Cryptantha muricata</i>
popcorn flower	<i>Cryptantha</i> sp.

Table A-1. Plant Compendium

Common Name	Scientific Name
distant phacelia	<i>Phacelia distans</i>
Caprifoliaceae – Honeysuckle Family	
Southern honeysuckle	<i>Lonicera subspicata</i> var. <i>denudata</i>
Convolvulaceae – Morning-Glory Family	
dodder	<i>Cuscuta</i> sp.
Cucurbitaceae – Gourd Family	
wild cucumber	<i>Marah macrocarpus</i>
Ericaceae – Heath Family	
Bigberry manzanita	<i>Arctostaphylos glauca</i>
Euphorbiaceae – Spurge Family	
doveweed	<i>Eremocarpus setigerus</i>
Fabaceae (Leguminosae) – Legume Family	
deerweed	<i>Acmispon glaber</i> [<i>Lotus scoparius</i> var. <i>scoparius</i>]
lupine	<i>Lupinus</i> sp.
California burclover**(Limited)	<i>Medicago polymorpha</i>
annual yellow sweet clover*	<i>Melilotus indica</i>
rose clover*	<i>Trifolium hirtum</i>
Facaceae – Oak / Beech Family	
coast live oak	<i>Quercus agrifolia</i>
California scrub oak	<i>Quercus berberidifolia</i>
Muller's oak	<i>Quercus cornelius-mulleri</i>
Engelmann oak	<i>Quercus engelmannii</i>
Geraniaceae – Geranium Family	
red-stemmed filaree**(limited)	<i>Erodium cicutarium</i>
Grossulariaceae – Gooseberry Family	
currant	<i>Ribes</i> sp.
Lamiaceae (Labiatae) – Mint Family	
Felt-leaved monardella	<i>Monardella hypoleuca</i> ssp. <i>lanata</i>
white sage	<i>Salvia apiana</i>
Cleveland sage	<i>Salvia clevelandii</i>
chia	<i>Salvia columbariae</i>
black sage	<i>Salvia mellifera</i>
Danny's skullcap	<i>Scutellaria tuberosa</i>
mountain blue-curls	<i>Trichostema parishii</i>
Montiaceae – Montia Family	
Narrow-leaved miner's lettuce	<i>Claytonia parviflora</i> ssp. <i>parviflora</i>

Table A-1. Plant Compendium

Common Name	Scientific Name
Myrsinaceae – Myrsine Family	
scarlet pimpernel*	<i>Anagallis arenensis</i>
Onagraceae – Evening Primrose Family	
California sun cup	<i>Camissoniopsis bistorta</i>
fireweed	<i>Epilobium angustifolium</i>
Orobanchaceae – Broomrape Family	
bristly birds beak	<i>Cordylanthus rigidus</i> ssp. <i>Setigerus</i>
Paeoniaceae – Peony Family	
California peony	<i>Paeonia californica</i>
Papaveraceae – Poppy Family	
California poppy	<i>Eschscholzia californica</i>
Plantaginaceae – Plantain Family	
purple Chinese houses	<i>Collinsia heterophylla</i>
Climbing penstemon	<i>Keckiella cordifolia</i>
Polemoniaceae – Phlox Family	
holly leaved pincushion plant	<i>Navarretia atractyloides</i>
Polygonaceae – Buckwheat Family	
California buckwheat	<i>Eriogonum fasciculatum</i>
California dock	<i>Rumex californicus</i>
Ranunculaceae – Buttercup Family	
foothill larkspur	<i>Delphinium hesperium</i> ssp. <i>hesperium</i>
Rhamnaceae – Buckthorn Family	
buck brush	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>
chaparral whitethorn	<i>Ceanothus leucodermis</i>
spiny redberry	<i>Rhamnus crocea</i>
Rosaceae – Rose Family	
chamise	<i>Adenostoma fasciculatum</i>
Birch leaf mountain mahogany	<i>Cercocarpus betuloides</i> var. <i>betuloides</i>
toyon / Christmas berry	<i>Heteromeles arbutifolia</i>
Rubiaceae – Madder Family	
three petal beardstraw	<i>Galium trifidum</i> var. <i>pacificum</i>
Monocotyledones – Monocots	
Agavaceae – Century Plant Family	
small flowered soap root	<i>Chlorogalum parviflorum</i>
our Lord's candle	<i>Hesperoyucca whipplei</i> [<i>Yucca whipplei</i>]

Table A-1. Plant Compendium

Common Name	Scientific Name
Liliaceae – Lily Family	
splendid mariposa lily	<i>Calochortus splendens</i>
Poaceae [Gramineae] – Grass Family	
slender oat**(moderate)	<i>Avena barbata</i>
soft chess**(limited)	<i>Bromus hordeaceus</i>
red brome**(high)	<i>Bromus madritensis</i> ssp. <i>rubens</i>
cheatgrass**(high)	<i>Bromus tectorum</i>
littleseed canary grass*	<i>Phalaris minor</i>
nodding needle grass	<i>Stipa cernua</i>
Themidaceae – Brodiaea Family	
wild hyacinth	<i>dichelostemma capitatum</i>

*Introduced species

** Cal-IPC inventoried plant (risk)

Appendix B. Faunal Compendium

Table B-1. Wildlife Compendium

Common Name	Scientific Name
Reptiles	
Phrynosomatidae	
side-blotched lizard	<i>Uta stansburiana</i>
Birds	
Odontophoridae	
mountain quail	<i>Oreortyx pictus</i>
Cathartidae	
turkey vulture	<i>Cathartes aura</i>
Accipitridae	
red-tailed hawk	<i>Buteo jamaicensis</i>
Columbidae	
mourning dove	<i>Zenaidura macroura</i>
Trochilidae	
Anna's hummingbird	<i>Calypte anna</i>
Costa's hummingbird	<i>Calypte costae</i>
Picidae	
northern flicker	<i>Colaptes auratus</i>
Tyrannidae	
Say's phoebe	<i>Sayornis saya</i>
ash-throated flycatcher	<i>Myiarchus cinerascens</i>
western kingbird	<i>Tyrannus verticalis</i>
Corvidae	
western scrub-jay	<i>Aphelocoma californica</i>
common raven	<i>Corvus corax</i>
Hirundinidae	
cliff swallow	<i>Petrochelidon pyrrhonota</i>
Paridae	
oak titmouse	<i>Baeolophus inornatus</i>
Aegithalidae	
bushtit	<i>Psaltiriparus minimus</i>
Troglodytidae	
house wren	<i>Troglodytes aedon</i>
Poliophtilidae	
blue-gray gnatcatcher	<i>Poliophtila caerulea</i>
Sylviidae	
wrentit	<i>Chamaea fasciata</i>

Table B-1. Wildlife Compendium

Common Name	Scientific Name
Turdidae	
western bluebird	<i>Sialia mexicana</i>
Mimidae	
California thrasher	<i>Toxostoma redivivum</i>
Sturnidae	
European starling*	<i>Sturnus vulgaris</i>
Ptilonotidae	
Phainopepla	<i>Phainopepla nitens</i>
Emberizidae	
spotted towhee	<i>Pipilo maculatus</i>
black-chinned sparrow	<i>Spizella atrogularis</i>
lark sparrow	<i>Chondestes grammacus</i>
Cardinalidae	
black-headed grosbeak	<i>Pheucticus melanocephalus</i>
Icteridae	
red-winged blackbird	<i>Agelaius phoeniceus</i>
Fringillidae	
house finch	<i>Haemorhous mexicanus</i>
lesser goldfinch	<i>Spinus psaltria</i>
Mammals	
Sciuridae	
California ground squirrel	<i>Otospermophilus beecheyi</i>

*Introduced species

Appendix C. Photo Documentation



PHOTO 1:

View of Engelmann Oak-Coast Live Oak/ Poison Oak/ Grass Association (*Quercus engelmannii*-*Quercus agrifolia*/ *Toxicodendron diversilobum*/ Grass Association) at the Proposed Project.

Photo taken on March 26, 2015.



PHOTO 2:

View of Chamise Chaparral (*Adenostoma fasciculatum* Alliance) at the Proposed Project.

Photo taken on March 26, 2015.



PHOTO 3:

View of California Buckwheat Scrub (*Eriogonum fasciculatum* Association) at the Proposed Project.

Photo taken on March 27, 2015.



PHOTO 4:

View of Bigberry Manzanita – Chamise Chaparral Association (*Arctostaphylos glauca* – *Adenostoma fasciculatum* Association) at the Proposed Project.

Photo taken on March 26, 2015.



PHOTO 5:

View of Non-native Grassland at the Proposed Project.

Photo taken on March 27, 2015.

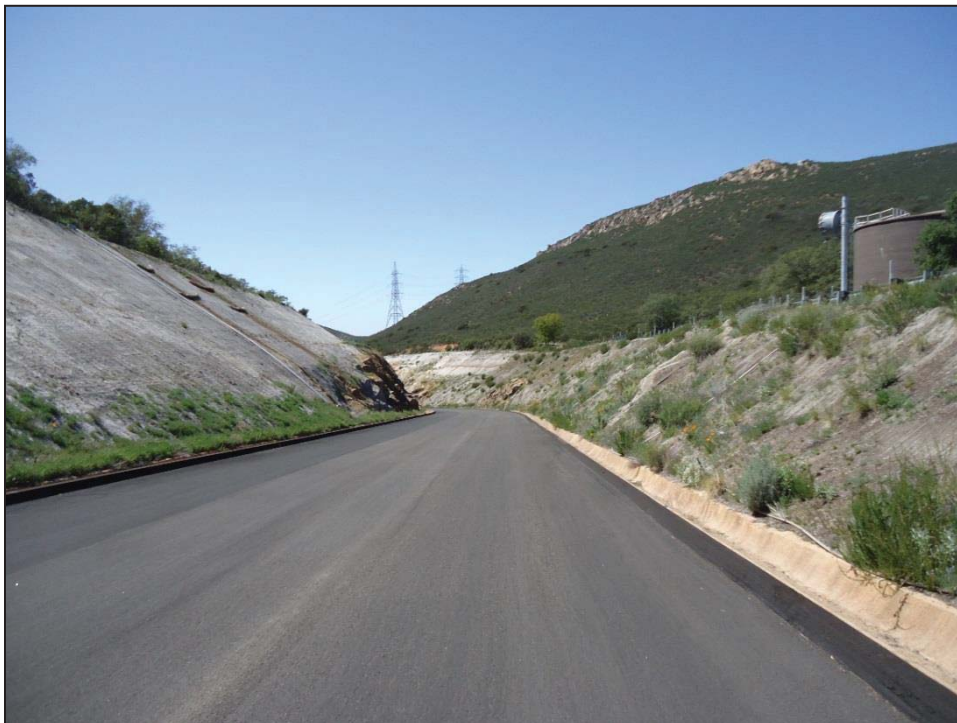


PHOTO 6:

View of Developed area.

Photo taken on March 26, 2015.



PHOTO 7:

View of a typical
drainage ditch.

Photo taken on
March 27, 2015.