TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

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4.4 BIOLOGICAL RESOURCES

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

4.4.1 Introduction

This section of the PEA describes the existing conditions and potential project-related impacts to biological resources in the vicinity of the Proposed Project. The analysis concludes that less than significant impacts related to biological resources will occur. The Proposed Project's potential effects on this resource were evaluated using the significance criteria set forth in Appendix G of the CEQA

Guidelines. The conclusions are summarized in the checklist above, and discussed in more detail in Section 4.4.6.

4.4.2 Regulatory Setting

4.4.2.1 Federal

MCB Camp Pendleton

Integrated Natural Resources Management Plan (INRMP)

Congress enacted the Sikes Act in 1960 to address wildlife conservation and public access on military installations. The Sikes Act (16 U.S. Code [USC] Section 670-670f), as amended, requires the Secretary of Defense to carry out a program to provide for the conservation and rehabilitation of natural resources on military installations in cooperation with the U.S. Fish and Wildlife Service (USFWS) and the state fish and wildlife agencies. The 1997 amendments to the Sikes Act require the Department of Defense to develop and implement an Integrated Natural Resources Management Plan (INRMP) for each military installation with significant natural resources. INRMPs are prepared in cooperation with the USFWS and the state fish and wildlife agencies, and reflect the mutual agreement of these parties concerning conservation, protection, and management of fish and wildlife resources on military lands.

The MCB Camp Pendleton INRMP (MCB Camp Pendleton 2012) is a planning document that guides the management and conservation of natural resources on the MCB Camp Pendleton property. The INRMP is intended to integrate natural resources conservation and management efforts in support of land use and military mission requirements and responsibilities on MCB Camp Pendleton. As such, the INRMP guides the effective management of an installation's natural resources to ensure that its lands remain available and in good condition with "no net loss" to the military mission of MCB Camp Pendleton. The MCB Camp Pendleton INRMP was developed as an "umbrella" document that encompasses all elements of natural resources management applicable to MCB Camp Pendleton, including compliance with the Terms and Conditions of relevant USFWS Biological Opinions and ongoing stewardship activities.

According to USFWS policy, if adequate special management or protection is provided by a legally operative plan that addresses the maintenance and improvement of the primary constituent elements important to the species and manages for the long-term conservation of the species, habitat identified as essential to the protection and recovery of a species may be omitted from federal critical habitat designation. "Benefit" to the species is determined by these three criteria (1) The plan provided a conservation benefit to the species; (2) the plan provided certainty that the management plan will be implemented; and (3) the plan provides certainty that the conservation effort will be effective. MCB Camp Pendleton's INRMP meets these three criteria for all federally listed species except the California brown pelican, which is currently proposed for federal delisting (MCB Camp Pendleton 2012).

Marine Corps Order (MCO) P5090.2A, Environmental Compliance and Protection Manual

MCO P5090.2A sets forth Marine Corps policies and responsibilities for compliance with environmental statutes and regulations, as well as the management of Marine Corps environmental programs. Environmental programs focus on (a) compliance with environmental requirements, (b) pollution prevention, (c) conservation of natural and cultural resources and d) environmental restoration. The manual applies to all Marine Corps active and Reserve installations, commands, detachments, components, and where applicable, Marine Corps activities in foreign countries (Headquarters, Marine Corps 2013).

Other Federal Regulations

Federal Endangered Species Act of 1973

Enacted in 1973, the Federal Endangered Species Act (ESA) prohibits take, possession, sale, or transport of proposed, candidate, or listed species. "Take" is broadly defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR Section 17.3). For endangered plants, the ESA prohibits removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging-up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 USC 1538). The ESA also designates critical habitat for federally listed species and protects these species from interference with vital breeding and behavioral activities and from critical habitat degradation. However, adequate special management and/or protection of federal species as provided by the INRMP has precluded the designation of critical habitat on MCB Camp Pendleton. No Critical Habitat has been designated for a federally listed species, with the exception of the California brown pelican (MCB Camp Pendleton 2012).Under section 7(a)(2) of the ESA, federal agencies with discretionary authority must consult with the National Marine Fisheries Service and/or USFWS if a federal action may jeopardize the continued existence of threatened or endangered species, or could result in the destruction or adverse modification of habitat of such species.

Section 10(a) of the ESA provides for issuance of incidental take permits to private parties (non-federal) with the development of a habitat conservation plan (HCP) or Natural Communities Conservation Plan (NCCP), such as SDG&E's existing Subregional NCCP for work conducted in its service territory.

Migratory Bird Treaty Act, as Amended (16 USC 703-711)

Under the Migratory Bird Treaty Act (MBTA), it is illegal to pursue, kill, harm, collect, purchase, or sell North American birds or their parts, nests, or eggs. It applies to most bird species that spend all or a portion of their life cycle in the United States. Some game bird species are allowed to be hunted during specific periods with a valid hunting license issued by the Federal or State government, and permits may be issued for certain activities such as scientific collection and propagation.

Bald and Golden Eagle Protection Act, as Amended (16 USC 668-668c)

The Bald and Golden Eagle Protection Act legally protects the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*), in addition to the protection provided by the MBTA. The Bald and Golden Eagle Protection Act prohibits the "take" of bald and golden eagles and their parts, nests, or eggs, and it is illegal to pursue, shoot, shoot at, wound, kill, capture, trap, collect, molest, or disturb them. The illegal act of "disturbing" bald or golden eagles includes any activities that may cause injury, disruption to productivity, and/or interference with normal behaviors. "Disturbance" also covers any man-made alterations near a previously used eagle nest site that agitate an eagle to a degree that it interferes with normal behaviors and leads to injury, death, or nest abandonment.

Executive Order 11990: Protection of Wetlands

The purpose of Executive Order 11990 is to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." It directs federal agencies to consider alternatives to wetland sites for any development, and to limit potential damage if activities affecting a wetland cannot be avoided. Activities that will affect wetlands should not commence unless the agency has determined that there are no practicable alternatives, measures are included to minimize

impacts to wetlands, and that any impacts will be minor. Additionally, federal agencies should avoid giving direct or indirect support to proposed projects that encroach on wetlands.

Executive Order 13112: Invasive Species

Executive Order 13112 instructs federal agencies to take actions to prevent the introduction and spread of non-native, invasive species in the United States. Invasive species are defined as "any species, including its seeds, eggs, spores, or other biological material capable of propagating the species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." The National Invasive Species Council is responsible for overseeing the implementation of the order. The goals of the National Invasive Species Council include increased interagency coordination and enhanced effectiveness in controlling invasive species. Invasive plants that must be addressed as part of the NEPA analysis for a proposed project can be found on the State's noxious weed list, as directed by the Federal Highway Administration Guidance.

Clean Water Act (CWA)

The CWA (33 USC Section 1251 *et seq*.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges into surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). The Proposed Project is under the jurisdiction of the San Diego Regional Water Quality Control Board (RWQCB). Refer to Section 4.9, Hydrology and Water Quality, for additional details regarding the CWA, including Sections 401, 402, and 404 (including the June 2015 final Clean Water Rule).

Coastal Zone Management Act

The Coastal Zone Management Act of 1972 (CZMA) is administered by the Office of Ocean and Resource Management of NOAA. It was established as a national policy to preserve, protect, develop, and where possible, enhance or restore the coastal zone in the U.S. The federal consistency provision, Section 307 of the CZMA, allows states to join the Coastal Zone Management Program, which takes a comprehensive approach to coastal resource management by balancing the often competing and occasionally conflicting demands of coastal resource use, economic development, and conservation, and allows states to issue applicable permits. California implements a federally approved Coastal Zone Management Program, which is administered by the California Coastal Commission (CCC, see below).

Final Rule for Revised Designation of Critical Habitat for the Coastal California Gnatcatcher

The USFWS designates critical habitat for endangered and threatened species under the FESA (16 USC Section 1533 (a)(3)). Critical habitat is designated for the survival and recovery of federally listed endangered and/or threatened species. Critical habitat includes areas used for foraging, breeding, roosting, shelter, and movement or migration. In the USFWS 2003 Proposed Rule to Revise Designation of Critical Habitat for the Coastal California Gnatcatcher, the USWFS considered but did not propose as critical habitat, pursuant to sections 3(5)(A) and 4(b)(2) of the Act, reserve lands covered by three completed and approved regional/subregional HCPs (68 FR 20228). These lands include SDG&E right-of-way (ROW) within SDG&E's Natural Community Conservation Plan (NCCP). Although these areas were not included in the proposed critical habitat, the USFWS sought public review and comment on these lands, provided maps to facilitate the public's ability to comment, and alerted the public that the lands could

potentially be included in the final designation. Lands considered but not proposed for designation were also analyzed for potential economic impacts in the Draft Economic Analysis.

In 2007, USFWS issued the Revised Final Rule, reaffirming exclusion of lands within approved regional and subregional HCPs under section 4(b)(2) of the FESA. USFWS determined that lands owned by SDG&E and covered under SDG&E's NCCP provided greater benefits to coastal California gnatcatcher than other areas designated as critical habitat. As such, the USFWS designation of critical habitat for the coastal California gnatcatcher specifically excludes SDG&E ROW within SDG&E's NCCP area.

The USFWS found that, after review and approval of MCB Camp Pendleton's 2007 INRMP, under section 4(a)(3)(B) of the ESA it provides a sufficient benefit to the species and its habitat on MCB Camp Pendleton lands to qualify for exemption status. Currently, there is not a recovery plan for the coastal California gnatcatcher (MCB Camp Pendleton 2012).

4.4.2.2 State

CEQA Guidelines 15380

Enacted in 1970, CEQA requires an applicant to fully disclose potential environmental impacts before issuance of a permit by State and local agencies. State CEQA Guidelines Section 15380 articulates the classifications of species to be analyzed under CEQA. According to the California Native Plant Society (CNPS), plants having a California Rare Plant Rank (CRPR) of 1A (plants presumed extirpated in California and either rare or extinct elsewhere), 1B (plants rare, threatened, or endangered in California and elsewhere), 2A (plants presumed extirpated in California, but common elsewhere), 2B (plants rare, threatened, or endangered plants in California), or 3 (plants about which more information is needed – a review list) fit the definition of "Rare or Endangered" under CEQA Guideline Section 15380.

California Endangered Species Act (Fish and Game Code Sections 2050-2115.5)

California Department of Fish and Wildlife (CDFW) is responsible for administering the California Endangered Species Act (CESA). CESA prohibits the "take" of State-listed species unless an incidental take permit is granted. Exceptions are California Fully Protected Species for which no take is authorized.

Section 2081 of the California Fish and Game Code gives the CDFW the authority to issue an incidental take permit for projects that have the potential for take of special-status species, including state-listed species, as long as the impacts are minimized and fully mitigated and will not jeopardize the continued existence of a state-listed species. The measures required to minimize and fully mitigate impacts must be roughly proportional to the extent of the proposed impact to the species and must be capable of successful implementation while maintaining the applicant's objectives to the greatest extent feasible.

Section 2080.1 provides an alternative to the Section 2081 permit process by allowing for "take" once an applicant obtains a Federal Incidental Take Permit which can be approved (via Consistency Determination letter) within 30 days by the CDFW Director. If the Federal Incidental Take Statement is determined not to be consistent with CESA, then application for a State Incidental Take Permit (pursuant to Section 2081) is required.

California Species of Special Concern

Species of Special Concern (SSC) is an administrative designation by CDFW and carries no formal legal status. These species are designated by the CDFW with the goal of focusing attention on animals with conservation risk, to stimulate research on poorly known species, and to achieve conservation and recovery of these animals before they meet criteria for listing under CESA. SSC should be considered

during the environmental review process if they can be shown to meet the criteria of sensitivity outlined in CEQA Guidelines Section 15380.

California Fully Protected Species (Fish and Game Code Sections 3511, 4700, 5050, 5515)

The State of California (CDFW) began to designate species as "fully protected" prior to the creation of the CESA and the ESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, including fish, amphibians, reptiles, birds, and mammals. Many fully protected species have since been listed as threatened or endangered under the CESA and/or the ESA. Fully protected species may not be taken or possessed at any time. Fish and Game Code lists birds (Section 3511), mammals (Section 4700), reptiles and amphibians (Section 5050), and fish (Section 5515).

Streambed Alteration Program (Fish and Game Code Sections 1601-1606)

Sections 1601 through 1606 of the Fish and Game Code require that a Notification of Lake or Streambed Alteration Agreement Application be submitted to the CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and applicant is a Lake or Streambed Alteration Agreement.

Non-game Birds, Birds of Prey, Nests and Eggs (Fish and Game Code Sections 3503, 3503.5, 3513, 3800)

The State of California has incorporated the protection of birds and nests in Sections 3503, and (migratory) non-game birds in Section 3513 and 3800 of the Fish and Game Code. Protection of birds of prey, i.e., birds in the orders *Falconiformes* or *Strigiformes* are protected from possession, and egg/nest destruction in Section 3503.5.

Native Plant Protection Act of 1977 (Fish and Game Code Sections 1900–1913)

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

Porter-Cologne Water Quality Act

The intent of the Porter-Cologne Act is to protect water quality and the beneficial uses of water, and applies to both surface and ground water. Under this law, the SWRCB develops statewide water quality plans, and the RWQCBs develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as "Waters of the state," include isolated waters that are no longer regulated by the U.S. Army Corps of Engineers (USACE). Any person discharging, or proposing to discharge, waste to Waters of the state must file a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

California Coastal Act

The California Coastal Act of 1972 was enacted to provide the standards for balancing development and conservation of resources within the coastal zone, which includes approximately 1.5 million acres along the Pacific Coast of the U.S. The California Coastal Act is administered by the CCC to regulate the short and long-term conservation and use of coastal resources through responsible development.

The CCC protects Environmentally Sensitive Habitat Areas per Section 30240 of the California Coastal Act, which states that "environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas." An Environmentally Sensitive Habitat Areas is defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."

Environmentally Sensitive Habitat Area designations are often based on the presence of rare habitats, or on areas that support populations of rare, sensitive, or especially valuable species or habitats. The CDFW identifies rare habitats in their List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database (CNDDB) (CDFW 2003). Rare species are defined as those that are listed under the CESA or ESA, those having CRPRs of 1A, 1B, 2A, 2B, or 3 based on CNPS' Rare Plant Program, and those for which there is other compelling evidence of rarity such as published academic studies.

California currently has a federally approved Coastal Zone Management Program, which is administered through state and local governments. Throughout southern California, there are two state coastal management agencies, the California Coastal Conservancy, and the CCC. The California Coastal Conservancy is responsible for purchasing, protecting, restoring, and enhancing coastal resources, and the CCC manages development within the coastal zone. The CCA encourages local municipalities to establish Local Coastal Programs (LCPs) to make decisions on behalf of the CCC, and to protect public access and coastal resources on a local level. After certification of an LCP, authority to issue a Coastal Development Permit is delegated to the local government, but the CCC maintains permit jurisdiction over specific lands (such as tidelands, submerged islands, and lands of public trust), and can appeal permits approved by local governments in certain geographical locations. Development within the coastal zone may not commence until the CCC or the local government with a certified LCP has issued a Coastal Development Permit.

Natural Community and Conservation Plans (NCCP)

The Natural Community and Conservation Planning Act (California Fish and Wildlife Code Sections 2800-2835) allows for the creation of NCCPs to protect state-listed species, usually in connection with the issuance of a Section 2081 take permit under the CESA.

SDG&E Subregional NCCP

The Proposed Project falls within the area in which SDG&E's utility operations are governed by SDG&E's NCCP (SDG&E 1995). SDG&E's NCCP prescribes "protocols" (i.e., various protection, mitigation, and conservation measures) that SDG&E implements. Protocols include 61 operational protocols and eight additional vernal pool protocols that SDG&E routinely implements with every project to avoid and/or minimize impacts to sensitive resources. The Proposed Project will not use the take authority granted by the USFWS and the CDFW in the NCCP for impacts to covered species. Potential take of state and federally listed species will be handled through consultation with the USFWS and CDFW in accordance with applicable sections of the federal ESA and the CESA. However, the Proposed

Project will nonetheless implement standard operating procedures, including applicable impact avoidance and minimization measures that are specified in the NCCP Operational Protocols.

4.4.2.3 Local

As provided in CPUC General Order 131-D, the CPUC preempts local discretionary authority over the location and construction of electrical utility facilities. The following discussion of relevant local land use plans and policies that pertain to biological resources is provided below for informational purposes.

City of San Clemente

The City of San Clemente Centennial General Plan (City of San Clemente 2014) is the comprehensive planning document for the City of San Clemente (City). The General Plan establishes policies to manage new development, foster economic vitality, conserve natural resources, and to generally guide the City's growth in accordance with an established vision. The General Plan provides the framework by which the City of San Clemente would change and grow, identifying how physical and economic resources are to be managed and used into the future. The City of San Clemente's General Plan includes a tree ordinance "City Owned Trees: Protection and Administration (policy 301-2-1). The policy protects the City's urban forest and establishes a policy for tree management. Protection extends to all trees owned and maintained by the City of San Clemente. Removal and replacement is at the discretion of the San Clemente Director of Beaches, Parks and Recreation.

4.4.3 Existing Conditions

4.4.3.1 Characterization of the Biological Resources Setting

The following paragraphs describe the sources and procedures used to compile information on biological resources present in the Proposed Project area. This includes literature and data review and on the ground surveys. The following information is adapted from the Biological Technical Report (Pangea 2015), provided in Appendix 4.4-A.

Project Study Area

The Project Study Area (PSA) includes an approximately 300-foot survey corridor (approximately 150 feet on either side of the centerline) along the entire 10-mile length of the Proposed Project, as well as additional access roads and work areas that fall outside of the survey corridor. Also included in the impacts analysis for this report are the proposed Basilone, Lemon Grove, San Mateo, SDG&E Lot 4, SONGS Mesa, and Talega 1 staging yards. Refer to Section 3.7.11, Project Study Area, for additional details.

A study "corridor" was established for biological resource surveys in order to accommodate minor changes in Proposed Project design (such as changes to work areas and/or additions/deletions or changes to the locations of pole structures), while minimizing the need to conduct additional surveys. The methods used to conduct the studies within the PSA are detailed below.

Subsequent changes to the Proposed Project include components (including Talega 2 staging yard, stringing sites, and work/staging/turnaround areas) that are located outside of the PSA. These areas will be surveyed for terrestrial and aquatic biological resources in spring of 2016 to determine if any biological resources are potentially present and could be impacted by the these Proposed Project elements. The results of these surveys will be submitted as a supplement to the Biological Technical Report.

Literature Review

Prior to conducting the field surveys, existing documentation relevant to the Proposed Project and the surrounding areas was reviewed. As part of the initial data review for the Proposed Project, a literature review of reference materials was conducted, including existing databases, management plans, listing packages, maps and aerial photography of the region, reports of previous biological resource surveys conducted within and in the vicinity of the Proposed Project, and manuals, guides, and other environmental documentation and resources for California plants and wildlife.

Special Status Species Lists

In order to develop a list of potentially occurring special status plant and wildlife species, a search of the CNDDB RareFind 5 (CDFW 2015), maintained by the CDFW, was conducted for species that lie within one mile of the Proposed Project area. Other resources that were queried included the USFWS website (USFWS 2015a), CNPS Inventory of Rare and Endangered Vascular Plants of California (CNPS 2015), the SDG&E Subregional NCCP (SDG&E 1995), existing MCB Camp Pendleton environmental documentation and electronic data, and San Diego County Bird Atlas (Unitt 2004). Records for known special status plants and wildlife within 1 mile of the Proposed Project were compiled and reviewed. Species were considered special status if they met the following criteria:

- Species have a CRPR of 1A, 1B, 2A, 2B or 3 based on the CNPS Rare Plant Program;
- Species are federally listed as endangered, threatened, or are a candidate for listing status;
- Species are state-listed as endangered, threatened, a California Species of Special Concern, or fully protected; or
- Species are considered sensitive by MCB Camp Pendleton.

Approximately 49 special status plants and wildlife species were identified as occurring or potentially occurring within or in the immediate vicinity of the Proposed Project. When formal section 7 consultation is established with the USFWS, the Proposed Project will receive a final list of federally listed or candidate species from the USFWS.

Determination of the potential for listed special status plant and/or wildlife species to occur within the Proposed Project area was assessed based on the following criteria:

- Low Potential for Occurrence - There are no recent historical records for this species within or in the immediate vicinity of the PSA, and any habitat or specific environmental conditions needed to support the species do not exist or are of poor quality
- Moderate Potential for Occurrence - (1) Historical records exist for the species within or adjacent to the PSA, however, either no suitable habitat exists, or only poor quality habitat occurs within or in the immediate vicinity of the PSA, or (2) No previous historical records for this species have been recorded within or in the immediate vicinity of the PSA. However, suitable habitat exists for the species within or in the immediate vicinity of the PSA.
- High Potential for Occurrence - Historical records exist for the species within or adjacent to the PSA and suitable habitat for the species exists within or in the immediate vicinity of the PSA.
- Present - The species has been observed within or in the immediate vicinity of the PSA.

- Not Detected During Survey - Protocol-level surveys were conducted for the species and suitable habitat exists, however, the species was not detected during the surveys or during other incidental surveys conducted for the Proposed Project.

Critical Habitat

A search of the USFWS Critical Habitat Portal was conducted to identify whether the Proposed Project area is located within any USFWS-designated critical habitat areas. In addition, recovery plans for special status species and geographic information system (GIS) data from the USFWS website were also reviewed (USFWS 2015b). The MCB Camp Pendleton INRMP was also reviewed and cross referenced with the USFWS Critical Habitat Portal to determine which lands (covered by the INRMP) have been precluded from Critical Habitat designation.

Resource Agency Correspondence

SDG&E conducted informal initial discussions with the USFWS during the spring and summer of 2015 regarding biological resources with potential to occur in the vicinity of the Proposed Project. Initial discussions with the USFWS included a dialog regarding potential species of concern that could occur in the vicinity of the PSA, and the need and types of protocol-level surveys that would be required for the Proposed Project. Pangea and the USFWS-permitted sub-consultant biologists working with the Pangea team have also coordinated with the USFWS regarding surveys for special status plant and wildlife species within the PSA by submitting notifications to conduct protocol-level surveys, as a condition of their USFWS permit to survey these species.

To comply with the requirements of NEPA for the Proposed Project, it is assumed that MCB Camp Pendleton will be the lead Federal Agency for the Proposed Project, and authorized representatives from MCB Camp Pendleton will conduct formal section 7 Consultation with the USFWS (with support from SDG&E and its consultants) during the course of the environmental documentation and approval process.

Field Surveys

During the numerous field surveys conducted within the PSA, biologists noted any general and special-status plant and wildlife species occurring within the PSA. Species were detected by direct observation, but also through signs, such as parts of plants that had grown in previous seasons or earlier in the growing season, and scat, tracks, burrows, and vocalizations of wildlife species. Survey methods utilized for focused, protocol-level special status plant and wildlife species surveys are described below, and in the survey reports included as an appendix to the Biological Technical Report.

Initial Constraints Analysis

An initial survey and analysis of biological and jurisdictional resource constraints was conducted by LSA Associates, Inc. (LSA) in April 2013 to identify the presence of, or potential to occur, of special-status biological and jurisdictional water resources along SDG&E's TL 695 (LSA 2013). Reconnaissance-level surveys were conducted to determine the potential or presence of vernal pools and/or special status branchiopods, federally listed plant species, least Bell's vireo (*Vireo bellii pusillus*), Southwestern willow flycatcher (*Empidonax traillii extimus*), Pacific pocket mouse (*Perognathus longimembris pacificus*), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), and potential jurisdictional resources that could be affected from the construction of the Proposed Project. This document is included in Appendix 4.4-A, Biological Technical Report.

Biological Resource Surveys/Vegetation Mapping

At the request of SDG&E, a general biological resource survey was conducted by AECOM in July and August 2014 to determine the vegetation communities located within the PSA, and determine the potential federal, state, and/or NCCP Sensitive (covered) species that occur or have potential to occur (AECOM 2014a; included in Appendix 4.4-A). Surveys were conducted to map vegetation communities, and to determine potential habitat areas for the special status species listed as potentially occurring in the PSA. Additional information on locations of basins within the PSA that could potentially support special status branchiopod species was also provided. Vegetation community classifications used in this report follow the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986), as modified by Oberbauer (2008).

As part of special status plant surveys conducted by Cardno in the spring of 2015 (Cardno 2015a, see below), vegetation types were reviewed and updated to reflect the most current conditions within the PSA. The vegetation communities identified in the current PSA alignment have been digitized and used as the preliminary vegetation community base for the Biological Technical Report. This document is included in Appendix 4.4-A, Biological Technical Report.

Rare Plant Surveys

Rare Plant Surveys within the PSA were conducted by Cardno (2015a) during the spring of 2015. Reconnaissance level field surveys were conducted throughout the PSA for all potential rare plants. Focused surveys for thread-leaved brodiaea (also known as *Brodiaea filifolia* [BRFI]) were conducted according to the "Brodiaea filifolia Inventory Protocol," prepared by the MCB Camp Pendleton Environmental Security Department, Land Management Section (MCB Camp Pendleton 2015). Potential BRFI habitat GIS data was provided by SDG&E (2015). During the course of surveys, Cardno biologists identified areas that were categorized as potential BRFI habitat in the GIS (SDG&E 2015), but that did not contain suitable BRFI habitat; therefore, such areas were not surveyed (Cardno 2015a, see Appendix 4.4-A, Biological Technical Report). All suitable BRFI habitats within the PSA were surveyed at least every two weeks for three complete surveys from March 31 through May 21, 2015.

Special Status Wildlife Surveys

Branchiopod Survey

Wet season fairy shrimp surveys within the PSA were conducted during the spring of 2015 (Cardno 2015b, see Appendix 4.4-A, Biological Technical Report). Before initiating the wet season surveys, a 15-day notice of intent (notification) letter was sent to the USFWS Carlsbad Field Office requesting permission to conduct surveys for the presence of listed fairy shrimp.

Wet season fairy shrimp surveys were conducted in accordance with the Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Branchiopods (USFWS 1996). After wet season fairy shrimp surveys began, the USFWS published updated survey guidelines for wet and dry season surveys for these species (USFWS 2015b). As a result, the wet season fairy shrimp surveys continued to be conducted under the original (1996) guidelines, with the dry season surveys to be completed under the updated guidelines from 2015.

Surveys were conducted by USFWS-permitted fairy shrimp and vernal pool biologists. Before beginning focused surveys, site reconnaissance surveys were conducted to determine suitable habitat. All potential basins were documented and mapped in the field using a global positioning system unit with a sub-meter

level accuracy receiver. Documentation and GIS locations of potential habitat was provided by SDG&E prior to initiating fairy shrimp surveys.

Initial location data provided by SDG&E included seven basins in the PSA. During the course of wet season sampling, any unexpected and undocumented ponded features encountered within the survey area were also inspected for potential vernal pool characteristics or diagnostic species. If warranted, these basins were surveyed for fairy shrimp presence.

Dry season protocol fairy shrimp surveys were completed in fall 2015. The results of these surveys will be documented and submitted to the USFWS.

Arroyo Toad

Protocol surveys for the arroyo toad (*Anaxyrus californicus*) within the PSA were conducted during the spring of 2015. The surveys followed the protocol established by the USFWS (1999). Both daytime and nighttime surveys were conducted between March 24 and June 14, 2015 to determine an accurate assessment of the presence or absence of the species in the PSA. Six surveys were conducted during the breeding season, per the USFWS protocols. At least one survey was conducted each month in April, May, and June with at least 7 days between surveys (Bloom Biologicals 2015a, see Appendix 4.4-A, Biological Technical Report).

Burrowing Owl

Protocol surveys for the western burrowing owl (*Athene cunicularia hypugaea*; BUOW) were conducted in the PSA by AECOM in the fall and winter of 2014-2015. A focused assessment of suitable BUOW habitat within the PSA was conducted in November 2014, to determine areas within the PSA that could be utilized by BUOW, and where nonbreeding BUOW burrow surveys should be conducted (AECOM 2015).

Potential BUOW habitat was mapped within three main areas of the PSA. Four nonbreeding BUOW season (September 1 through January 31) surveys were conducted per the guidelines set forth by the Staff Report on Burrowing Owl Mitigation (CDFW 2012). This report reflects the most recent regulatory agency/industry standard protocols for BUOW surveys. Nonbreeding BUOW surveys generally occurred over a 1- or 2-day period per survey. The first nonbreeding BUOW survey was conducted on December 18 and 19, 2014; the second survey on December 29, 2014; the third survey on January 8 and 9, 2015; and the fourth survey on January 22 and 23, 2015.

Coastal Cactus Wren (Breeding Surveys)

A total of four breeding surveys for the coastal cactus wren in the PSA were conducted between April 8 and June 13, 2015, to determine locations of potential breeding habitat for the species and detect breeding coastal cactus wren pairs within the PSA. The first two surveys were dedicated to surveying the entire PSA for suitable habitat, and conducting the initial breeding surveys in areas of potential habitat. The last two surveys focused on detecting nests and birds in habitat within the PSA (Bloom Biological 2015b, see Appendix 4.4-A, Biological Technical Report).

Coastal California Gnatcatcher

Protocol-level presence/absence surveys were conducted for the coastal California gnatcatcher (*Polioptila californica*; CAGN) within the PSA in 2014. The surveys were part of an initial review of the Proposed Project, and were conducted to determine where suitable habitat exists for CAGN within the PSA, as well as locations where CAGN were observed (AECOM 2014b, see Appendix 4.4-A, Biological Technical

Report]). Before conducting the surveys, a habitat assessment and vegetation mapping of the PSA was conducted (AECOM 2014a) to outline potentially suitable CAGN habitat and to delineate the vegetation community boundaries. Potentially suitable CAGN habitat was then digitized onto maps to establish the areas to conduct protocol-level surveys. CAGN surveys were completed during the 2014 breeding season per USFWS guidelines (USFWS 1997). Since the CAGN surveys were conducted within SDG&E's service territory, protocol surveys were conducted per SDG&E's NCCP. The protocol required three surveys to be conducted during the breeding season (February 15 through August 30). Surveys were conducted within suitable CAGN habitat between August 11 and August 27, 2015.

Least Bell's Vireo

Protocol surveys for the least Bell's vireo within the PSA were conducted during the spring of 2015. A total of eight presence/absence Least Bell's Vireo surveys were conducted between April 10 and June 21, 2015, in accordance with Service protocol (USFWS 2001). All potential least Bell's vireo habitat and riparian areas within the PSA were surveyed eight times during the breeding season (April 10 to July 31), with a minimum of ten days between survey visits (Bloom Biological 2015a; see Appendix 4.4-A, Biological Technical Report). Some least Bell's vireo surveys were conducted in the same survey areas, simultaneously with Southwestern willow flycatcher surveys (see below).

Southwestern Willow Flycatcher

Protocol surveys for the Southwestern willow flycatcher within the PSA were conducted during the spring and summer of 2015. A total of five surveys were conducted between May 21 and July 2, 2015, according to the revised protocol for project-related surveys for Southwestern Willow Flycatcher (Sogge et al. 2010). All potentially suitable habitat for Southwestern willow flycatcher was surveyed once during Period 1 (May 15 to May 31), two times during Period 2 (June 1 to June 24), and twice during Period 3 (June 25 to July 17). Surveys were conducted at least five days apart and during morning hours (Bloom Biological 2015a, see Appendix 4.4-A, Biological Technical Report). Some Southwestern willow flycatcher surveys were conducted in the same survey areas, simultaneously with least Bell's vireo surveys.

Pacific Pocket Mouse

Protocol surveys for the Pacific pocket mouse in suitable habitat areas in the vicinity of the PSA were conducted by permitted biologist Scott Tremor during the summer of 2013. Trapping efforts were conducted in the northern section of the PSA near Talega Substation, and north of Basilone Road, near the Basilone Substation from July 21 through July 31, 2013. The surveys were conducted in accordance with established survey requirements/protocols defined in Mr. Tremor's Federal 10(a)(1)(A) Recovery Permit (TE-787716-7) (Tremor 2013a and b; see Appendix 4.4-A, Biological Technical Report).

Wetlands and Waters

Jurisdictional Delineation

A wetland delineation of wetland and non-wetland waters within the PSA was conducted between June 1 and June 5, 2015 with a supplemental visit on October 2, 2015. Methodology followed the USACE Regional Supplement Wetland Delineation Manual: Arid West Region (Version 2.0) guidelines (USACOE 2008), and consisted of preliminary data gathering and research, field assessment surveys, digital mapping, and documentation of final boundary determinations (Pangea Biological and Borcher Environmental Management, Inc. 2015; see Appendix 4.4-A, Biological Technical Report).

Prior to conducting the field delineation assessment, the following information sources were reviewed to evaluate potential USACE, CDFW, RWQCB, and CCC jurisdiction:

- SDG&E's aerial photographs;
- United States Geologic Survey (USGS) 7.5-degree minute topographic quadrangle maps;
- United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) soil survey maps (USDA NRCS 2015);
- USFWS National Wetland Inventory GIS data (USFWS 2015c); and
- USGS National Hydrological Dataset GIS data for modeling of streams to evaluate possible stream features (USGS 2015).

Field assessment surveys were conducted to confirm the potential jurisdictional areas identified in the in-office reconnaissance process and to delineate those areas of interest within the survey area for the potential presence of water resources. To assist with the field analysis, a customized data dictionary was uploaded onto the Global Positioning System (GPS) unit to allow field surveyors to select specific feature data.

In the field, boundaries and dimensions of jurisdictional wetland and water features were recorded utilizing a sub-meter GPS unit, on field maps, and field notes. Features within the survey area were investigated for the presence of drainages, including culverts, water bodies, riparian vegetation, potential wetlands, and connectivity to jurisdictional waters.

The results of the jurisdictional evaluation are included in Appendix 4.9-A, Jurisdictional Delineation Report.

4.4.3.2 Biological Resources Setting

The PSA ranges in elevation from approximately 25 feet to 545 feet above mean sea level, with lower elevations along the flat grassy plains southeast of San Mateo Creek and northwest of Basilone Road, and the highest portion occurring through the hilly terrain where the new line is proposed along the lattice towers north of Basilone Road. The terrain along the PSA is highly variable, and ranges from relatively flat topography, to rolling hills, to more steep and hilly terrain with ridges intermixed with drainages and canyons. The PSA crosses primarily undeveloped areas, as well as some developed areas and disturbed habitat, with a substantial network of existing dirt and paved roads providing access to most of the structures to be modified as a result of the Proposed Project. Additional project components such as access routes, helicopter landing areas and work on additional pole structures, have been identified that are outside the PSA, and surveys will be required to determine the biological resources associated with these additional components, and their potential to affect sensitive biological resources. These areas will be scheduled for survey and further analysis, and the additional information will be presented as a supplement to the Biological Technical Report (Appendix 4.4-A).

TL 695 and 6971 occur in Orange and San Diego Counties, which are known for their biological diversity. This section identifies the vegetation communities identified within the PSA, as well as the special status plant and wildlife species that occur or potentially occur within the PSA.

Vegetation Communities

The PSA supports a variety of plant communities and habitats. Vegetation communities are assemblages of plant species that commonly coexist in the wild. The classification of vegetation communities is based

on the life form of the dominant species within that community and the associated flora. Plant community classification and descriptions are based on Holland (1986) as updated by Oberbauer et al. (2008) for San Diego County.

Plant communities occurring in the PSA are described below and are illustrated in Appendix 4.4-A, Biological Technical Report. Respective areas of plant communities within the project area are provided in Table 4.4-1.

The PSA and other associated project components generally support 10 vegetation communities:

- Non-native grassland
- Diegan coastal sage scrub
- Mulefat scrub
- Non-vegetated channel
- Southern sycamore-alder riparian woodland
- Southern willow scrub
- Eucalyptus woodland
- Coast live oak woodland
- Disturbed habitat
- Urban/developed

A description of the plant communities occurring within the PSA are described below as derived from Cardno (2015a) and AECOM (2014a). The plant communities observed within the PSA and the relative acreages of each plant community are provided in Table 4.4-1. Diegan coastal sage scrub is the dominant vegetation community within the PSA, with disturbed habitat and urban/developed areas comprising the second largest cover type within the PSA.

Table 4.4-1. Vegetation Communities in the TL 695 and TL 6971 Project Survey Area

Vegetation Community	Acronym	Area (acres)
Grassland		
Non-native Grassland	NNG	9.16
	Subtotal	**9.16**
Scrub		
Diegan Coastal Sage Scrub	DCSS	228.92
	Subtotal	**228.92**
Riparian/Wetland		
Mulefat Scrub	MFS	7.23
Non-vegetated Channel	NVC	1.45
Southern Sycamore-Alder Riparian Woodland	SSARW	12.13
Southern Willow Scrub	SWS	8.87
	Subtotal	**29.68**
Upland Woodland		
Eucalyptus Woodland	EW	0.37
Coast Live Oak Woodland	CLOW	0.19
	Subtotal	**0.56**

Table 4.4-1. Vegetation Communities in the TL 695 and TL 6971 Project Survey Area

Vegetation Community	Acronym	Area (acres)
Disturbed/Developed		
Disturbed Habitat	DIS	77.32
Urban/Developed	DEV	151.25
	Subtotal	**228.57**
	TOTAL	**496.89**

Source: SDG&E 2015.

Grassland

Non-Native Grassland (NNG) (Holland Code 42200)

Non-native annual grassland is characterized by a dense to sparse cover of annual grasses and forbs of Mediterranean origin, often with native and nonnative annual forbs (Holland 1986). This plant community generally occurs on fine-textured loam or clay soils that are moist or even waterlogged during the winter rainy season, and very dry during the summer and fall. Regionally, typical grasses include ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), soft chess (*Bromus hordeaceus*), wild oats (*Avena* spp.), and rat-tail fescue (*Vulpia myuros*). Nonnative disturbance-related annuals such as filaree (*Erodium* sp.), and horseweed (*Erigeron canadensis*) are common to this community. This vegetation community is found alongside firebreaks along ridge tops, interspersed between Diegan coastal sage scrub, and around areas that have been historically disturbed. Nonnative annual grassland occurs throughout the PSA, primarily to the northeast, a few areas in the north, and in the southeast of the PSA.

Scrub

Diegan Coastal Sage Scrub: Coastal Form (DCSS) (Holland Code 32510)

Diegan coastal sage scrub is a vegetation community dominated by relatively low-lying shrubs. It is typically less than 6 feet in height, soft-leaved, and drought-deciduous. Dominant species in these communities drop their leaves as the summer dry season progresses to reduce stress from lack of water. The coastal form of Diegan coastal sage scrub is similar to other forms of Diegan coastal sage scrub but is found at lower elevations, below 1,000 feet. California sagebrush is more dominant in coastal Diegan coastal sage scrub than in other Diegan coastal sage scrub varieties. The dominant species in this community is California sagebrush (*Artemisia californica*), but associated dominants can include California buckwheat (*Eriogonum fasciculatum* var. *fasciculatum*), laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), broom Baccharis (*Baccharis* sp.), and black sage (*Salvia mellifera*). Diegan coastal sage scrub is found throughout the PSA and is the dominant vegetation type.

Riparian/Wetland

Mulefat Scrub (MFS) (Holland Code 63310)

Mulefat scrub is a riparian shrub community that is strongly dominated by mulefat (*Baccharis salicifolia*), often in association with several willow species. Mulefat scrub occurs along intermittent streams with a fairly coarse substrate and moderately deep water table. Understory vegetation is usually composed of nonnative, weedy species, or is lacking altogether. This community is maintained by frequent flooding. In the absence of periodic flooding, and over time, this community may develop into cottonwood- or sycamore-dominated riparian communities.

Within the survey area, mulefat scrub occupies floodplain areas of San Mateo and San Onofre Creeks. This community is strongly dominated by mulefat, with western ragweed (*Ambrosia psilostachya*) and willow dock (*Rumex salicifolia*) occupying the understory.

Non-vegetated Channel (NVC) (Holland Code 64200)

Non-vegetated channels are natural flood channels that are sparsely vegetated. The lack of significant vegetative cover in such areas can be attributed to either natural processes, such as flooding, or to human activities, such as vegetation clearing or stream channelization. Non-vegetated channels occur within San Mateo Creek, where annual scouring by rock and sand tend to prevent vegetation from growing in the channel.

Southern Sycamore-Alder Riparian Woodland (SSARW) (Holland Code 62400)

Sycamore alder riparian woodland is a tall, winter-deciduous, streamside woodland dominated by western sycamore (*Platanus racemosa*) and white alder (*Alnus rhombifolia*). These woodlands are commonly found along rocky stream beds that are subject to periodic high-intensity flooding. Vegetation associated with sycamore alder riparian woodland includes blue elderberry (*Sambucus mexicana*), Douglas' mugwort (*Artemisia douglasiana*), scale-broom (*Lepidospartum squamatum*), poison oak (*Toxicodendron diversilobum*), and willows (*Salix* sp.). This vegetation type is scattered in a few sections throughout the PSA but is primarily located along the more stabilized banks of the San Mateo and San Onofre Creeks.

Southern Willow Scrub (SWS) Southern Willow Scrub (Holland Code 63320)

Southern willow scrub is a dense, closed-canopy scrub that occurs throughout California in association with riverine features. It is lacking in the taller trees that are characteristic of riparian forests. Dominant plant species include willows, mulefat, and coyote brush (*Baccharis pilularis*). There is typically not a substantial herbaceous understory within this vegetation community due to the dense shrub cover.

This community is dominated by mulefat and arroyo willow (*Salix lasiolepis*), with California sagebrush and western ragweed occasionally co-dominating in the dryer portions of the drainages. Within the PSA, southern willow scrub is associated with some small drainage features and within San Mateo and San Onofre Creeks. There is also a small portion of southern willow scrub in the far northeastern part of the PSA in Orange County.

Upland Woodland

Eucalyptus Woodland (EW) (Holland Code 79100)

This community is dominated by several species of eucalyptus (*Eucalyptus* spp.). These introduced species produce large amounts of leaf and bark litter, the chemical composition of which may inhibit the establishment and growth of other species, especially natives, in the understory. Often these species have been planted for aesthetic and horticultural purposes or as a windbreak, but many species of eucalyptus have become naturalized and have been quite successful in invading riparian areas. There is a small portion of eucalyptus woodland surrounded by Diegan coastal sage scrub in upland areas adjacent to San Onofre Creek.

Coast Live Oak Woodland (CLOW) (Holland Code 71160)

This community is well represented on MCB Camp Pendleton and can co-occur with Diegan coastal sage scrub, valley needlegrass grassland, and other types of oak woodland. Coast live oak woodland is an open to dense tree community with coast live oak (*Quercus agrifolia*) as the dominant tree species. The shrub understory of this community is well developed in undisturbed sites and may include blue elderberry,

laurel sumac (*Malosma laurina*), poison oak, and toyon (*Heteromeles arbutifolia*) (Holland 1986). An herbaceous stratum is usually present, including miner's lettuce (*Claytonia perfoliata* var. *perfoliata*), chickweed (*Stellaria media*), and nonnative grasses. Coast live oak woodland is located in the far northeastern part of the PSA, in Orange County.

Disturbed/Developed

Disturbed Habitat (DIS) (Holland Code 11300)

Disturbed habitat includes vegetation and soils characterized by physical disturbance. Nonnative species are commonly introduced by humans in these sites. A physical disturbance may include clearing for fuel management, repeated grading, graded fire breaks, power line access roads and areas around power pole structures, construction staging areas, or any repeated use areas. Examples of repeated use areas are trails, access roads, and dirt parking lots. Characteristic species of these communities include tocalote (*Centaurea melitensis*), Italian thistle (*Carduus pycnocephalus*), artichoke thistle (*Cynara cardunculus*), sow-thistle (*Sonchus* sp.), tumbleweed (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), mustard (*Sisymbrium* spp.), radish (*Raphanus sativus*), hottentot fig (*Carpobrotus edulis*), garland chrysanthemum (*Glebionis coronaria*), and fennel (*Foeniculum vulgare*). Annual grasses are not often included in this vegetation community and are considered more typical of nonnative annual grassland.

Disturbed habitat occurs throughout the PSA primarily in the form of dirt roads and trails and areas that were historically agriculture, as well as those areas regularly mowed and/or used as training areas. Existing substations and staging yards are located within disturbed habitat characterized by bare ground or gravel base and devoid of vegetation.

Urban/Developed (DEV) Urban/Developed Land (Holland Code 12000)

Urban/developed areas within the PSA include buildings, paved areas, and ornamental landscaping. Areas of ornamental/landscape plantings occur throughout the PSA. These areas include lawns, parks, road medians, and roadsides. Common species in these areas include African daisy (*Arctotis* sp.), eucalyptus, Peruvian pepper tree (*Schinus molle*), myoporum (*Myoporum laetum*), and African fountain grass (*Pennisetum setaceum*). Other developed areas include graveled or paved parking lots similar to the area within the SONGS mesa. Urban/developed areas are not necessarily considered a vegetation community, and typically support no or very few biological resources.

Special Status Plants

Table 4.4-2 lists special status plant and species that have potential to occur within the PSA. The table includes a total of 20 special status species; of those, two species have low potential to occur, 17 have moderate potential to occur and one (thread-leaved brodiaea [*Brodiaea filifolia*]) is known to occur. Appendix 4.4-A, Biological Technical Report provides a brief description of each species.

Additional species observed during the surveys included California boxthorn (*Lycium californicum*), Coulter's matilija poppy (*Romneya coulteri*), paniculate tarweed (*Deinandra paniculata*), San Diego County viguiera (*Viguiera laciniata*), and Western dichondra (*Dichondra occidentalis*). These five species are listed as CRPR 4 and do not warrant consideration under CEQA, and are not discussed further.

Approximately 275 plant species have been observed within the PSA during surveys conducted in the area. A compendium list of plant species observed during studies in support of the Proposed Project is included in Appendix 4.4-A, Biological Technical Report.

Table 4.4-2. Special Status Plant Species Potentially Occurring in the Proposed Project Area

Common Name (Scientific name)	Habitat Conditions	Status	Potential to Occur within PSA
Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)	Rocky, clay, or serpentinite soils in coastal bluff scrub, coastal scrub, chaparral, and valley and foothill grassland habitats.	CRPR 1B.1	Moderate potential – Suitable habitat within PSA.
Chaparral ragwort (*Senecio aphanactis*)	Coastal scrub, chaparral, and woodland habitats	CRPR 2B.2	Moderate potential – Suitable habitat within PSA.
Coastal dune milk-vetch (*Astragalus tener* var. *titi*)	Vernally mesic soils in sandy depressions, vernal pools near the coast, on coastal bluffs, coastal dunes, and in coastal prairie habitats.	FE, SE, CRPR 1B.1	Moderate potential – Suitable habitat within PSA.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	Coastal marsh and swamp, playas, and vernal pool habitats.	CRPR 1B.1	Low potential – No suitable habitat within PSA.
Coulter's saltbush (*Atriplex coulteri*)	Alkali or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland habitats.	CRPR 1B.2	Moderate potential – Suitable habitat with clay soils within PSA.
Estuary seablite (*Suaeda esteroa*)	Coastal salt habitats.	CRPR 1B.2	Low potential – No Suitable habitat within PSA.
Intermediate mariposa-lily *Calochortus weedii* var. *intermedius*)	Rocky or calcareous soils in coastal scrub, chaparral, and valley and foothill grassland habitats.	CRPR 1B.2	Moderate potential – Suitable habitat with rocky soils within PSA.
Little mouse tail (*Myosurus minimus* ssp. *apus*)	Vernal pools and alkaline marshes.	CRPR 3.1	Moderate potential – Suitable habitat within PSA.
Many-stemmed dudleya (*Dudleya multicaulis*)	Clay or heavy soils on sandstone outcrops or rocky hillsides in chaparral, coastal scrub, coastal plains, and valley and foothill grassland habitats.	CRPR 1B.2	Moderate potential – Suitable habitat with clay soils within PSA.
Nuttall's acmispon (*Acmispon prostratus*)	Coastal dunes and coastal scrub with sandy soil habitats.	CRPR 1B.1	Moderate potential – Suitable habitat within PSA.
Nuttall's scrub oak (*Quercus dumosa*)	Sandy or clay loam soils in coastal scrub, chaparral, and coniferous forest habitats.	CRPR 1B.1	Moderate potential – Suitable habitat within PSA.
Pendleton button-celery (*Eryngium pendletonense*)	Vernal pools and marshes, or mesic areas within coastal sage scrub or valley and foothill grassland habitats.	CRPR 1B.1	Moderate potential – Suitable habitat within PSA.
Prostrate vernal pool navarretia (*Navarretia prostrata*)	Mesic soils in coastal scrub, meadows and seeps, vernal pools, and valley and foothill grassland habitats.	CRPR 1B.1	Moderate potential – Suitable habitat within PSA.
San Diego button-celery (*Eryngium aristulatum* var. *parishii*)	Vernal pools and marshes, or mesic areas within coastal sage scrub or valley and foothill grassland habitats.	FE, SE, CRPR 1B.1	Moderate potential – Suitable habitat within PSA.

Table 4.4-2. Special Status Plant Species Potentially Occurring in the Proposed Project Area

Common Name (Scientific name)	Habitat Conditions	Status	Potential to Occur within PSA
South coast saltscale (*Atriplex pacifica*)	Coastal bluff scrub, coastal dunes, coastal scrub, playas	CRPR 1B.2	Moderate potential – Suitable habitat within PSA.
Spreading navarretia (*Navarretia fossalis*)	Vernal pools and vernal swales	FT, CRPR 1B.1	Moderate potential – Some suitable habitat within PSA.
Sticky dudleya (*Dudleya viscida*)	Rocky soils and on rock cliffs in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub habitats.	CRPR 1B.2	Moderate potential – Suitable habitat within PSA.
Thread-leaved brodiaea (*Brodiaea filifolia*)	Clay soils around vernal pools and in openings in vernally moist grassland habitats.	FT, SE, CRPR 1B.1	Present
Variegated dudleya (*Dudleya variegata*)	Clay soils on dry hillsides, mesas, and vernally pools, and openings in chaparral, coastal scrub, and valley and foothill grassland habitats.	CRPR 1B.2	Moderate potential – Suitable habitat within PSA.
White-rabbit tobacco (*Pseudognaphalium leucocephalum*)	Sandy or gravelly soils in coastal scrub, chaparral, woodland, and riparian woodland habitats.	CRPR 2B.2	Moderate potential – Suitable habitat within PSA.

Notes: FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered.
CRPR = California Rare Plant Rank
Rank
1A: Plants presumed extinct in California
1B: Plants rare, threatened, or endangered in California and elsewhere
2: Plant rare, threatened, or endangered in California, but more common elsewhere
3: Plants about which we need more information – A review list
Threat Ranks
0.1-Seriously threatened in California (high degree/immediacy of threat)
0.2-Fairly threatened in California (moderate degree/immediacy of threat)
0.3-Not very threatened in California (low degree/immediacy of threats or no current threats known)

Special Status Wildlife

Table 4.4-3, below provides a tabulation of 41 special status species with potential to occur in the vicinity of the Proposed Project. Of these, 34 special status wildlife species that have a moderate to high potential to occur in the PSA. These included two invertebrates, two fish, two amphibians, six reptiles, 15 birds and seven mammals. For purposes of this report, special status wildlife species include those that are either listed or proposed for listing as threatened or endangered under the state or federal ESA, species designated as Birds of Conservation Concern by the USFWS, species designated as fully protected, species of special concern and/or taxa to watch by the CDFW. Additional information about each species is provided in Appendix 4.4-A, Biological Technical Report.

Table 4.4-3. Special Status Wildlife Species Potentially Occurring in the Proposed Project Area

Common name (Scientific name)	Habitat Conditions	Listing Status	Potential to Occur within PSA
Invertebrates			
Riverside fairy shrimp (*Streptocephalus woottoni*)	Vernal pools and ephemeral freshwater wetland habitats, and is typically associated with vernal pool complexes.	FE	Moderate potential – Suitable habitat observed within the PSA, and other non-special status fairy shrimp species observed during focused surveys in 2015
San Diego fairy shrimp (*Branchinecta sandiegonensis*)	Shallow vernal pools and ephemeral freshwater wetland habitats, and is typically associated with vernal pool complexes.	FE	Moderate potential – Suitable habitat observed within the PSA, and other non-special status fairy shrimp species observed during focused surveys in 2015
Fish			
Southern steelhead (*Oncorhynchus mykiss*)	Ocean, estuaries, rivers, and watershed habitats.	FE, SSC	Moderate potential within watersheds of San Mateo Creek and San Onofre Creek within the PSA.
Tidewater goby (*Eucyclogobius newberryi*)	Coastal lagoon and estuary habitats.	FE, SSC	Low to moderate potential within watersheds of San Mateo Creek and San Onofre Creek within the PSA.
Amphibians			
Arroyo toad (*Anaxyrus californicus*)	Streams with silt-free streambeds, shallow pools or quiet runs, and nearby sandbars or sandy terraces. They prefer riparian habitat but can also be found in streams within woodland and forest habitats with minimal riparian vegetation.	FE, SSC	Present – Observed during focus surveys and suitable habitat observed within the PSA.
Western spadefoot toad (*Spea hammondii*)	Mixed oak woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains	SSC	Moderate potential – Suitable habitat observed within the PSA.
Reptiles			
Coast patch-nosed snake (*Salvadora hexalepis virgultea*)	Semi-arid brushy areas such as chaparral, coastal sagebrush, pinyon-juniper woodland, and desert scrub habitats.	SSC	Moderate potential – Potential habitat observed within the PSA.
Coronado island skink (*Plestiodon skiltonianus interparietalis*)	Pine forest, open woodland, grasslands, chaparral, and coastal sage scrub habitats and along creeks and rivers.	SSC	Moderate potential – Suitable habitat exists within the PSA.
Northern red rattlesnake (*Crotalus ruber ruber*)	Coastal sage scrub, chaparral, desert slope scrub, thorn scrub, and woodland habitats below 5,000 feet.	SSC	Moderate potential – Suitable habitat observed within the PSA.
Orange-throated whiptail (*Aspidoscelis hyperythrus*)	Semi-arid brushy areas typically with loose soil and rocks, including washes, stream sides, rocky hillsides, coastal chaparral, and coastal sage scrub habitats.	SSC	Moderate potential – Suitable habitat observed within the PSA.

Table 4.4-3. Special Status Wildlife Species Potentially Occurring in the Proposed Project Area

Common name (Scientific name)	Habitat Conditions	Listing Status	Potential to Occur within PSA
San Diego horned lizard (*Phrynosoma coronatum blainvillei*)	Sage scrub, chaparral, grasslands, woodlands, and coniferous forest habitats.	SSC	Moderate potential – Suitable habitat observed within the PSA.
Southwestern pond turtle (*Actinemys marmorata pallida*)	Ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with emergent and floating vegetation.	SSC	Low potential – Some suitable upland habitat for nesting and aestivation observed within the PSA.
Two-striped garter snake (*Thamnophis hammondii*)	Permanent or intermittent freshwater source, such as ponds, lakes, and temporary bodies of water. Prefers riparian habitat with coastal sage scrub, and coniferous forest habitats.	SSC	Moderate potential – Suitable habitat observed within the PSA.
Birds			
Bank swallow (*Riparia riparia*)	Low areas along rivers, streams, ocean coasts, or reservoirs with vertical cliffs or banks.	ST	Moderate potential – Some suitable nesting habitat may occur in San Mateo Creek within the PSA.
Belding's savannah sparrow (*Passerculus sandwichensis beldingi*)	Salt marsh habitat dominated by pickleweed (*Salicornia* sp.).	SE	Low potential – No suitable nesting or foraging habitat observed within the PSA.
Burrowing owl (*Athene cunicularia*)	Grasslands and open scrub habitats, but may also be found in vacant lots and other open disturbed areas.	BCC, SSC	Moderate potential – Suitable open scrub and grassland habitat was observed within the PSA.
California least tern (*Sternula antillarum browni*)	Breeds on sand dunes and on sandbars close to lagoons, bays, and estuaries. May also forage at inland lakes and reservoirs.	FE, SE, FP	Low potential – No suitable nesting or foraging habitat observed within the PSA.
Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	Arid and semiarid areas with coastal sage scrub habitat dominated by thickets of cactus.	BCC, SSC	Present – Observed during focused surveys in 2015, and suitable habitat observed within the PSA.
Coastal California gnatcatcher (*Polioptila californica californica*)	Coastal sage scrub habitat and prefers areas dominated by California sagebrush and California buckwheat. May also forage and nest in other scrub habitats, such as chaparral and riparian scrub.	FT, SSC	Present – Observed during focused surveys in 2014 and suitable habitat (CSS) observed within the PSA.
Cooper's hawk (*Accipiter cooperii*)	Riparian woodlands, oaks woodlands, and eucalyptus groves habitats.	WL	Moderate – Suitable nesting and foraging habitat was observed within the PSA.
Ferruginous hawk (*Buteo regalis*)	Extensive grassland habitats and agricultural areas.	WL	Low potential – Some open flat areas and potential grassland habitat observed within the PSA.
Grasshopper sparrow (*Ammodramus savannarum*)	Native and nonnative grasslands.	SSC	Moderate potential – Suitable habitat observed within the PSA.
Least Bell's vireo (*Vireo bellii pusillus*)	Riparian woodland habitats with a relatively dense tree canopy.	FE, SE	Present – Observed during focused surveys and suitable habitat observed within the PSA.

Table 4.4-3. Special Status Wildlife Species Potentially Occurring in the Proposed Project Area

Common name (Scientific name)	Habitat Conditions	Listing Status	Potential to Occur within PSA
Light-footed Ridgeway's rail (*Rallus obsoletus levipes*)	Salt-water and brackish marsh habitats.	FE, SE, FP	Low potential – No suitable nesting or foraging habitat observed within the PSA.
Loggerhead shrike (*Lanius ludovicianus*)	Grassland, open sage scrub, chaparral, and desert scrub habitats.	BCC, SSC	Present- Observed during surveys and suitable habitat observed within the PSA.
Northern harrier (*Circus cyaneus*)	Grassland and marsh habitats.	SSC	Moderate potential – Some suitable foraging habitat observed within the PSA.
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	Coastal sage scrub, broken or burned chaparral, and arid, rocky hillsides in mature chaparral habitat.	WL	Moderate potential – Suitable habitat observed within the PSA.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Riparian woodland/ forest habitats with some surface water.	FE, SE	Moderate potential – Suitable habitat observed within the PSA.
Western snowy plover (*Charadrius alexandrinus nivosus*)	Beaches, dunes, dry mud or salt flats, and sandy shores of river, lakes and ponds.	FT, BCC, SSC	Low potential – No suitable nesting or foraging habitat observed within the PSA.
Western yellow-billed cuckoo (*Coccyzus americanus*)	Riparian woodland habitats.	FT, SE	Moderate potential – Suitable nesting and foraging habitat observed within the PSA.
White-tailed kite (*Elanus leucurus*)	Grassland with adjacent riparian woodland, oak groves, or sycamore groves habitats.	FP	Moderate potential – Suitable nesting and foraging habitat observed within the PSA.
Yellow-breasted chat (*Icteria virens*)	Riparian woodland habitats.	SSC	Moderate potential – Suitable habitat observed within the PSA.
Yellow warbler (*Dendroica petechia*)	Riparian woodland habitats.	BCC, SSC	Moderate potential – Suitable habitat observed within the PSA.
Mammals			
American badger (*Taxidea taxus*)	Drier and open stages of scrub, forest, and grassland habitats.	SSC	Moderate potential – Suitable foraging and burrowing habitat observed within the PSA.
Dulzura pocket mouse (*Chaetodipus californicus femoralis*)	Mature coastal sage scrub and chaparral habitats. It may also occur in desert grassland habitats.	SSC	Present – Observed during focused trapping/surveys for Pacific Pocket Mouse. Suitable habitat observed within the PSA.
Mexican long-tongued bat (*Choeronycteris mexicana*)	Desert shrubland, mountain canyons with deep riparian vegetation, woodlands, and tropical deciduous forest habitats.	SSC	Low potential – Marginally suitable habitat observed within the PSA.
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	Sandy soils with rocks or coarse gravel in coastal sage scrub, chaparral, grassland, and sage scrub/grassland transitional habitats.	SSC	Moderate potential – Suitable habitat observed within the PSA.

Table 4.4-3. Special Status Wildlife Species Potentially Occurring in the Proposed Project Area

Common name (Scientific name)	Habitat Conditions	Listing Status	Potential to Occur within PSA
Pacific pocket mouse (*Perognathus longimembris pacificus*)	Open coastal sage scrub habitat with fine-grain, sandy substrates.	FE, SSC	High potential – Suitable habitat observed within the PSA, and species detected during previous surveys.
San Diego black-tailed jackrabbit (*Lepus californicus bennetti*)	Grassland, desert shrub, open forest, scrub, and chaparral habitats in coastal southern California.	SSC	Moderate potential – Suitable foraging habitat observed within the PSA.
San Diego desert woodrat (*Neotoma lepida intermedia*)	Coastal sage scrub, chaparral, woodland, and desert habitats.	SSC	Moderate potential – Suitable habitat observed within the PSA.
Western mastiff bat (*Eumops perotis californicus*)	Semi-arid to arid habitats and woodland, coastal scrub, grassland, palm oases, chaparral, desert scrub, and urban habitats. Roost in cliffs, buildings, trees, and tunnels.	SSC	Moderate potential – Suitable foraging habitat observed within the PSA.

Notes: FE=Federal Endangered; FT=Federal Threatened; BCC= USFWS Birds of Conservation Concern; FP=Fully protected; SE=State Endangered; ST=State Threatened; SSC=California Species of Special Concern; WL=CDFG Watch List.

Special Status Species Surveys

The following section provides a brief summary of the results of protocol level wildlife surveys conducted in support of the Proposed Project. A total of six special status wildlife species were observed within the PSA during focused and/or protocol surveys conducted in support of the Proposed Project. Species observed include the arroyo toad, coastal cactus wren, coastal California gnatcatcher, least Bell's vireo, loggerhead shrike, and Dulzura pocket mouse (*Chaetodipus californicus femoralis*).

More details on each of the surveys, as well as a list of all wildlife species observed during the surveys are included in Appendix 4.4-A, Biological Technical Report.

Branchiopod Survey

Protocol-level wet season surveys were conducted in appropriate habitat for Riverside fairy shrimp (*Streptocephalus woottoni*) and San Diego fairy shrimp (*Branchinecta sandiegonensis*), (both federally endangered [FE]) in early 2015 in support of the Proposed Project. No Riverside or San Diego fairy shrimp were detected during the surveys (Cardno 2015b). Protocol-level dry season surveys are in progress to determine presence/absence of these species.

Arroyo Toad Survey

The arroyo toad (FE, Species of Special Concern [SSC]) is found in streams with silt-free sandy streambeds, shallow pools or quiet runs, and nearby sandbars or sandy terraces. They prefer riparian habitat with mule fat, willow, Western sycamore, and cottonwood (*Populus* sp.), but can also be found in streams within woodland and forest habitats with minimal riparian vegetation. The arroyo toad is primarily nocturnal within their stream habitats, and they are most active after seasonal rains in late winter and early spring. Their breeding season is generally from March through July, but this may vary depending on rainfall. The arroyo toad will travel into upland habitat (up to 3,000 feet from a stream) during the non-breeding season.

Protocol-level surveys were conducted for arroyo toad within the PSA in 2015 in support of the Proposed Project. The surveys were conducted in habitats with the potential to support arroyo toad. One arroyo toad was observed in San Mateo Creek and three arroyo toads were observed in San Onofre Creek during the protocol surveys (Bloom Biological 2015a). Construction activities are not anticipated within either San Mateo or San Onofre Creeks. The full survey report, including the location of each observation is illustrated in Appendix 4.4-A, Biological Technical Report (Appendix E).

Burrowing Owl Survey

The burrowing owl (SSC, Bird of Conservation Concern [BCC]) can be found in grassland and open scrub habitats where it utilizes mammal burrows, and occasionally man-made structures such as culverts, for roosting and nesting. The species occurs in San Diego County year-round, with the breeding season generally February through August, but is more common in winter.

Suitable habitat for burrowing owl does occur within the PSA. Protocol-level surveys were conducted for burrowing owl within the PSA during the 2014-2015 non-breeding season in support of the Proposed Project. The surveys were conducted in habitats with the potential to support burrowing owls. No burrowing owls or their signs were observed during the survey (AECOM 2015). The full survey report is provided in Appendix 4.4-A, Biological Technical Report (Appendix F).

As part of the burrowing owl surveys conducted in December 2014 and January 2015 (AECOM 2015), the loggerhead shrike was observed in the southern portion of the PSA (south of San Mateo Creek).). The loggerhead shrike (SSC, BCC) is an uncommon year-round resident to San Diego County that can be found in grassland, open sage scrub, chaparral, and desert scrub habitats (Unitt 2004). Their nesting season can extend as early as January through July. Suitable grassland and coastal sage scrub habitat occur within the PSA.

Coastal Cactus Wren Survey

The coastal cactus wren (federally threatened [FT], SSC) is only found in San Diego County and southern Orange County in California. It inhabits arid and semiarid areas with coastal sage scrub habitat dominated by thickets of cactus (i.e. cholla or prickly-pear). It is dependent on these cactus stands, where it remains year round maintaining its large, hollow, football-shaped nests. The nesting season for the coastal cactus wren is typically from March to mid-July, but it can be observed maintaining and roosting at their nests year round.

Protocol-level nesting surveys were conducted for coastal cactus wren within the PSA in 2015 in support of the Proposed Project. The surveys were conducted in habitats with the potential to support coastal cactus wrens and their nests. One coastal cactus wren family and two nests were observed within the southern section of the PSA (Bloom Biological 2015b). The full survey report including the location of each observation is illustrated in Appendix 4.4-A, Biological Technical Report (Appendix G).

Coastal California Gnatcatcher Survey

The coastal California gnatcatcher (FT, SSC) is only found in southern California within the United States. It is a year-round resident within coastal sage scrub habitat and prefers areas dominated by California sagebrush and California buckwheat. They may also forage and nest in other scrub habitats, such as chaparral and riparian scrub, if it is closely associated with nearby coastal sage scrub habitat. The nesting season for coastal California gnatcatcher is typically from March through August.

Protocol-level surveys were conducted for coastal California gnatcatcher within the PSA in 2014 in support of the Proposed Project. The surveys were conducted in habitats with the potential to support

coastal California gnatcatchers. A total of 108 coastal California gnatcatcher observations were made throughout the PSA (AECOM 2014b), and most if not all of the coastal sage scrub habitat within the PSA should be considered occupied habitat for the coastal California gnatcatcher. Additional coastal California gnatcatcher surveys are anticipated to be conducted closer to the beginning of construction of the Proposed Project, in order to better determine the most current locations of gnatcatchers prior to construction. The full survey report is provided in Appendix 4.4-A, Biological Technical Report (Appendix H).

Least Bell's Vireo Survey

The least Bell's vireo (FE, state endangered [SE]) migrates into southern California during its breeding season from around mid-March through late September, and is typically associated with dense riparian woodland habitat with a dense upper canopy, where it forages, and a dense understory, where it nests. It may also forage in upland habitats up to 200 feet from the riparian edge.

Protocol-level surveys were conducted for least Bell's vireo within the PSA, in spring and summer 2015, in support of the Proposed Project. The surveys were conducted in riparian habitats with the potential to support least Bell's vireo. A total of 52 least Bell's vireo observations were recorded within the PSA during the survey (Bloom Biological 2015a). The full survey report, including the location of each observation is illustrated in Appendix 4.4-A, Biological Technical Report (Appendix E).

Southwestern Willow Flycatcher Survey

The southwestern willow flycatcher (FE, SE) is a migratory species that spends the breeding season in the southwestern United States. While in the United States, the southwestern willow flycatcher is a strict inhabitant of the dense vegetation associated with riparian woodland/forest habitats with some surface water. In San Diego County, southwestern willow flycatchers start arriving in May to breed in riparian woodland/forest habitats and start migrating south by the end of August.

Protocol-level surveys were conducted for southwestern willow flycatcher during May through July 2015 in support of the Proposed Project. The surveys were conducted in habitats with the potential to support southwestern willow flycatcher. No willow flycatcher or any subspecies, including the southwestern willow flycatcher, were detected during the surveys (Bloom Biological 2015a). The full survey report is provided in Appendix 4.4-A, Biological Technical Report (Appendix E).

Pacific Pocket Mouse Survey

The Pacific pocket mouse (FE, SSC) is currently known in only four locations (three on MCB Camp Pendleton and one in Dana Point). These remaining populations occur within open coastal sage scrub habitat with fine-grain, sandy substrates. Historically this pocket mouse was known to inhabit coastal sage scrub, coastal strand, coastal dune, and river alluvium habitats within approximately 2.5 miles of the ocean. Historical records of Pacific pocket mouse observations have been documented in the vicinity of the proposed reconductor segment along existing lattice towers in the hills north of Basilone Road, as well as coastal sage scrub habitat south of the San Mateo Substation.

Protocol-level surveys were conducted for Pacific pocket mouse within the PSA in 2013 in support of the Proposed Project. The surveys were conducted in areas of suitable habitat (near San Mateo Creek and San Onofre Creek) that had not previously been documented as occupied by Pacific pocket mouse. No Pacific pocket mouse were captured or observed during the surveys (Tremor 2013a and b); however, there is a high potential that this species occurs within the Proposed Project area. No trapping was conducted in known occupied Pacific pocket mouse habitat, in order to minimize potential disturbance to the species.

MCB Camp Pendleton and the U.S. Geological Survey have been conducting extensive surveys in Pacific pocket mouse habitat to determine population locations, densities, and other pertinent ecological information for this species at MCB Camp Pendleton. SDG&E will use the latest data from these studies to determine specific Pacific pocket mouse locations within the PSA. In coordination with MCB Camp Pendleton and the USFWS, additional surveys will be conducted as necessary to determine the most recent areas occupied by Pacific pocket mouse within the PSA.

The full survey report is provided in Appendix 4.4-A, Biological Technical Report (Appendix I).

In addition, Dulzura pocket mouse (SSC) was observed north and south of San Mateo Creek during trapping surveys for Pacific pocket mouse in July 2013 (Tremor 2013a and b).

Critical Habitat

Under the ESA, to the extent prudent and determinable, the USFWS is required to designate Critical Habitat for endangered and threatened species (16 USC Section 1533 (a)(3)). Critical Habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated Critical Habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter.

Most of the Proposed Project is within MCB Camp Pendleton. According to USFWS policy, if adequate special management or protection is provided by a legally operative plan that addresses the maintenance and improvement of the primary constituent elements important to the species and manages for the long-term conservation of the species, habitat identified as essential to the protection and recovery of a species may be omitted from federal critical habitat designation. "Benefit" to the species is determined by these three criteria (1) The plan provided a conservation benefit to the species; (2) the plan provided certainty that the management plan will be implemented; and (3) the plan provides certainty that the conservation effort will be effective. MCB Camp Pendleton's INRMP meets these three criteria for all federally listed species except the California brown pelican, which is currently proposed for federal delisting (MCB Camp Pendleton 2012).

The northernmost portion of the PSA which lies outside of the boundaries of MCB Camp Pendleton, falls within or crosses designated Critical Habitat for both the arroyo toad and coastal California gnatcatcher. Project components within critical habitat for these species include stringing sites, poles and conductor to be replaced, one helicopter ILA, and Talega 1 staging Yard.

Wildlife Movement Corridors

Wildlife corridors are defined as areas that connect suitable habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features, such as canyon drainages, ridgelines, or areas with dense vegetation cover can provide corridors for wildlife travel. Wildlife corridors are important to mobile species because they provide access to individuals to find shelter, mates, food, and water; allow the dispersal of individuals away from high population density areas; and by allowing immigration and emigration of individuals to other populations they allow for gene flow between populations. Wildlife corridors are considered sensitive by resource and conservation agencies. Terrestrial wildlife species may travel along natural drainages, such as San Mateo and San Onofre Creeks, which could provide protective cover from predators, as well as a consistent water and food source. Migrating avian species will use native habitat areas as stopovers on their journey through the area to wintering sites south of the Proposed Project, and north to nesting areas to the north.

The MCB Camp Pendleton INRMP (MCB Camp Pendleton 2012) notes that many of the open space areas within and adjacent to MCB Camp Pendleton, and to the northeast within the Cleveland National Forest, are generally large enough to support varied and abundant resident plant and wildlife populations and provide for unrestricted movement between MCB Camp Pendleton and adjacent open space lands. Also the large habitat areas on MCB Camp Pendleton generally allow unrestricted access to the north toward permanently designated open space areas of the Cleveland National Forest, Casper's Wilderness Park, O'Neill Regional Park, Rancho Mission Viejo Land Conservancy, and Thomas F. Riley Wilderness Park.

While there are likely a number of preferred travel routes and landscape features that larger and more mobile wildlife species may use to move within and between permanent open space areas, wildlife "corridors" have not been formally studied and documented within the open space habitat areas on MCB Camp Pendleton nor surrounding MCB Camp Pendleton, except for the Santa Ana – Palomar Mountain Linkage.

Wildlife movement on MCB Camp Pendleton is facilitated by the fact that MCB Camp Pendleton contains several watersheds and several small coastal drainages. Although water flows are intermittent across these drainages, they support abundant riparian woodland, scrub, and wetland vegetation communities within the floodplain areas, and coastal sage, chaparral or grassland vegetation on canyon slopes and along ridgelines. These areas provide food and cover for many wildlife species on MCB Camp Pendleton, in addition to facilitating wildlife movement throughout MCB Camp Pendleton. Potential east-west wildlife movement on MCB Camp Pendleton can occur along the Santa Margarita River and Las Flores, Aliso, and San Onofre canyons, portions of the San Mateo and San Luis Rey Rivers, and along several small coastal drainages. San Onofre Creek, San Mateo Creek, and the Santa Margarita River offer the best direct connection for wildlife, albeit highly restricted by the I-5 corridor, to the beaches and coastal bluffs of MCB Camp Pendleton.

Potential north-south wildlife movement occurs on MCB Camp Pendleton through the inland mountains situated along the eastern half of MCB Camp Pendleton, and those of the coastal belt located just east of the I-5 corridor. Other potential north-south wildlife movement on MCB Camp Pendleton may include the areas along the beaches, coastal benches/bluffs, and foothills that are, for the most part, unconstrained by development and other artificial barriers (MCB Camp Pendleton 2012).

While local wildlife movements may be temporarily disrupted during construction of the Proposed Project, the temporary and permanent impacts as a result of construction are not expected to significantly affect the movement of wildlife through MCB Camp Pendleton or along any existing or potential wildlife movement corridors within the base or specifically within the PSA. Although the Proposed Project is over 10 miles in length, work on each individual power pole structure and/or tower will be localized and of relatively short duration, and should not result in large-scale impacts across an extensive section of native habitat. In addition, work is to be conducted primarily within existing areas devoted to electric utilities. New pole structure placement for the Proposed Project will occur in the vicinity of existing structures within the existing power line alignment, and will result in minimal additional loss of protective cover, roosting or foraging habitat, or movement corridors by maintaining existing wide natural areas that allow for movement of species. The Proposed Project will also avoid or span existing drainages that can serve as wildlife movement corridors. Therefore, impacts to wildlife movement corridors as a result of construction of the Proposed Project are anticipated to be less than significant.

Environmentally Sensitive Habitat Areas

As discussed in Section 44.4.2, Regulatory Setting (specifically the California Coastal Act), Environmentally Sensitive Habitat Areas are defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." Proposed development within and adjacent to an Environmentally Sensitive Habitat Area must be located and designated to prevent significant impacts to the functions and values of the Environmentally Sensitive Habitat Area.

Native vegetation communities within the PSA can be considered Environmentally Sensitive Habitat Areas if they provide potential habitat for a number of sensitive plant and wildlife species. For example, upland habitats such as coastal sage scrub habitat could support the Coastal California gnatcatcher and Pacific pocket mouse, while grassland habitat can provide suitable nesting and/or roosting habitat for the western burrowing owl and other potential raptor species. Riparian habitats such as those found within San Mateo or San Onofre Creeks could potentially provide suitable nesting and/or roosting habitat for species such as the least Bell's vireo and arroyo toad. Areas such as compacted bare ground and areas of high disturbance would not typically be considered Environmentally Sensitive Habitat Areas. However, these are areas that could retain water during storm events, resulting in potential habitat for special status fairy shrimp species.

Wetland and Riparian Resources

The PSA contains wetland and non-wetland water features that may be subject to regulation by federal and state resource agencies. All wetlands and riparian areas identified within the PSA continue outside of the PSA and are either part of the San Mateo Creek or San Onofre Creek systems that flow directly into the Pacific Ocean. All waters, streambed, wetland and riparian features delineated were jurisdictional, and if impacted during construction, will require permits/agreements from USACE, RWQCB, and CDFW. In addition to USACE, RWQCB, and CDFW, all features identified within the Coastal Zone are also jurisdictional to the CCC, and if impacted may require a coastal development permit.

Twenty-six features were identified jurisdictional to USACE, RWQCB, and CDFW including five jurisdictional to the CCC during surveys conducted in June and October 2015. Some features supported areas determined to be USACE, RWQCB, and CDFW wetland, but also supported non-wetland open channel, and CDFW jurisdictional adjacent riparian vegetation.

Within the survey area, a total of approximately 141,572 square feet (3.250 acres) of USACE Waters of the U.S., RWQCB Waters of State, and CDFW Streambed, 548,384 square feet (12.589 acres) of USACE Wetland, RWQCB Wetland, and CDFW Wetland, 72,881 square feet (1.673 acres) of RWQCB Waters of State, and CDFW Streambed, 14,622 square feet (0.336 acre) of USACE wetland and RWQCB Wetland Waters of the State, 258,372 square feet (5.931 acres) of CDFW Riparian, and 58,420 square feet (1.341 acres) of CCC Wetland were identified during the survey. A summary of the Jurisdictional Features observed, as well as the jurisdiction for each feature and approximate size within the PSA, are listed in Table 4.4-4.

Table 4.4-4. Summary of Jurisdictional Wetlands and Riparian Areas in the PSA

Wetland	Jurisdiction	Total Area (Square Feet)	Total Area (Acres)
Feature 1	USACE/RWQCB/CDFW Waters	439	0.010
	RWQCB/CDFW Streambed	869	0.020
Feature 2	USACE/RWQCB/CDFW Waters	834	0.019
	RWQCB/CDFW Streambed	840	0.019
Feature 3	USACE/RWQCB/CDFW Wetland	6,001	0.138
	CDFW Riparian	6,705	0.154
Feature 4	USACE/RWQCB/CDFW Waters	405	0.009
	RWQCB/CDFW Streambed	818	0.019
Feature 5	USACE/RWQCB/CDFW Wetland	2,444	0.056
Feature 6	USACE/RWQCB/CDFW Waters	1,071	0.025
	RWQCB/CDFW Streambed	1,075	0.025
Feature 7	USACE/RWQCB/CDFW Waters	521	0.012
	RWQCB/CDFW Streambed	522	0.012
Feature 8	USACE/RWQCB/CDFW Waters	5,120	0.118
	RWQCB/CDFW Streambed	10,274	0.236
Feature 9	USACE/RWQCB/CDFW Waters	1,301	0.030
	RWQCB/CDFW Streambed	1,301	0.030
Feature 10	USACE/RWQCB/CDFW Waters	1,233	0.028
	CDFW Riparian	31,349	0.720
Feature 11	USACE/RWQCB/CDFW Waters	458	0.011
	RWQCB/CDFW Streambed	459	0.011
Feature 12	USACE/RWQCB/CDFW Waters	600	0.014
	RWQCB/CDFW Streambed	1,207	0.028
Feature 13 (San Mateo East)	USACE/RWQCB/CDFW Waters	66,508	1.527
	USACE/RWQCB/CDFW Wetland	23,602	0.542
	CDFW Riparian	107,006	2.457
Feature 14	USACE/RWQCB/CDFW Waters	1,259	0.029
	RWQCB/CDFW Streambed	1,261	0.029
Feature 15 (San Onofre East)	USACE/RWQCB/CDFW Waters	44,226	1.015
	RWQCB/CDFW Streambed	44,194	1.015
Feature 16	USACE/RWQCB/CDFW Waters	979	0.022
	RWQCB/CDFW Streambed	2,956	0.068
Feature 17	USACE/RWQCB/CDFW Wetland	8,909	0.205
	USACE/RWQCB/CDFW Waters	2,002	0.046
	RWQCB/CDFW Streambed	2,016	0.046
Feature 18	USACE/RWQCB/CDFW Wetland/CCC Wetland	40,714	0.935
Feature 19 (San Onofre West)	USACE/RWQCB/CDFW Wetland/CCC Wetland	109,695	2.518
	USACE/RWQCB/CDFW Waters/CCC Wetland	9,793	0.225
	CDFW Riparian/CCC Wetland	33,820	0.776
Feature 20	USACE/RWQCB/CDFW Waters/CCC Wetland	991	0.023
	RWQCB/CDFW Streambed/CCC Wetland	1,419	0.033

Table 4.4-4. Summary of Jurisdictional Wetlands and Riparian Areas in the PSA

Wetland	Jurisdiction	Total Area (Square Feet)	Total Area (Acres)
Feature 21	USACE/RWQCB/CDFW Wetland/CCC Wetland	196,489	4.511
Feature 22 (San Mateo West)	USACE/RWQCB/CDFW Wetland/CCC Wetland	160,532	3.685
	CDFW Riparian/CCC Wetland	58,420	1.341
Feature 23	USACE/RWQCB/CDFW Waters	1,829	0.042
	RWQCB/CDFW Streambed	3,062	0.070
	CDFW Riparian	21,072	0.484
Feature 24	USACE/RWQCB/CDFW Waters	2,001	0.046
	RWQCB/CDFW Streambed	607	0.014
Feature 25	USACE/RWQCB Wetland	6,307	0.145
Feature 26	USACE/RWQCB Wetland	8,315	0.191
Total USACE/RWQCB/CDFW Waters		**141,572**	**3.250**
Total USACE/RWQCB/CDFW Wetland		**548,384**	**12.589**
Total RWQCB/CDFW Streambed		**42,881**	**1.673**
Total RWQCB/CDFW Wetland		**14,622**	**0.336**
Total CDFW Riparian		**258,372**	**5.931**
Total CCC Wetland		**58,420**	**1.341**

The Proposed Project has been designed to avoid impacts to jurisdictional resources whenever possible. Most of the features identified above are expected to be avoided during construction. A footpath is proposed for crews to access pole structures 124 and 125, located within the riparian habitat north of the Basilone Substation. The vegetation along the footpath will be trimmed to facilitate access to the pole structures, and the vegetation around each pole structure will also be trimmed to facilitate access when the 69kV line is removed from this section of the project. No ground excavation or grubbing of vegetation is expected for work conducted along the proposed footpath and at these two pole structure sites, therefore, no additional permits or authorizations from jurisdictional agencies are expected as a result of vegetation trimming in this area.

4.4.4 Applicant Proposed Measures

APM BIO-01. Supplemental Surveys

- SDG&E will conduct supplemental biological resources surveys to address the impacts, if any, associated with components that were subsequently added to the Proposed Project, but which lie outside of the PSA covered in the Biological Technical Report.

APM BIO-02. Migratory Birds

- Trimming or removal of vegetation during the peak-breeding season (February 15 to August 31) will require a pre-construction survey by a qualified biologist to confirm that active nests will not be affected. If an active nest is detected within the construction area during the survey, work will be halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest that is of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest. The no-work buffer zone will remain in effect until the young have fledged, or the qualified biologist has determined that the nest is no longer active.

APM BIO-03. Coastal California Gnatcatcher

- Prior to construction, SDG&E shall retain a qualified coastal California gnatcatcher biologist to conduct surveys for the coastal California gnatcatcher in suitable coastal sage scrub habitat, to determine if any active nests are within or in the immediate vicinity of the Proposed Project.
- Trimming or removal of vegetation during the peak-breeding season (February 15 to August 31) will require a pre-construction survey by a qualified biologist to confirm that active nests will not be affected. If an active nest is detected within the construction area during the survey, work will be halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest that is of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest. The no-work buffer zone will remain in effect until the young have fledged, or the qualified biologist has determined that the nest is no longer active.

APM BIO-04. Pacific Pocket Mouse

- Prior to construction, SDG&E shall retain a qualified Pacific pocket mouse biologist to conduct pre-construction surveys for Pacific pocket mouse in suitable habitat (in coordination with MCB Camp Pendleton and the U.S. Fish and Wildlife Service [USFWS]), to avoid a mortality of the species from any Proposed Project activity.
- A qualified biologist, approved by the USFWS and experienced with Pacific pocket mouse, will be assigned to monitor all construction activities conducted within occupied Pacific pocket mouse habitat. The qualified Pacific pocket mouse biologist will have the authority to halt or redirect construction activities that may impact the Pacific pocket mouse.

APM BIO-05. Arroyo Toad

- Prior to conducting soil disturbing or vegetation removal activities at sites in proximity to arroyo toad breeding habitat (riparian areas) within the Proposed Project, a qualified biologist will survey the site for any sign of arroyo toad in the anticipated impact area. If arroyo toads and/or potential burrows are found, steps will be taken to avoid the toads and/or burrow sites to the extent possible.
- For sites immediately adjacent to or within suitable riparian habitat, impacts to arroyo toad shall be avoided by installing fencing, flagging, and/or signage, or marking the areas to be avoided. If individual arroyo toads are encountered during construction, sites located within or immediately adjacent to suitable riparian habitat shall be monitored by a qualified biologist to minimize potential impacts to the arroyo toad. The biological monitor will have the authority to stop or redirect construction activities to minimize or avoid impacts to this species.
- Since this species is considered nocturnal, construction activities shall be conducted during daylight hours, in order to minimize impacts to active arroyo toads.
- To prevent the trapping of toads or other wildlife, plywood boards should cover the excavated hole if pole structure installation activities do not occur within the same day. The plywood boards should be anchored and the sides sealed with gravel or sand bags. A proper seal with appropriate materials shall prevent wildlife from moving into the hole/trench and becoming trapped.

APM BIO-06. Impacts to Federally and State Listed Species

- Federally listed species with potential to occur onsite include coastal California gnatcatcher, Pacific pocket mouse, thread-leaved brodiaea, San Diego fairy shrimp, Riverside fairy shrimp, southern steelhead, arroyo toad, least Bell's vireo, southwestern willow flycatcher and western yellow-billed cuckoo. Impacts to potential or known habitat for these species should not proceed without consultation under section 7 of the Endangered Species Act (ESA). Construction and operation of the Proposed Project shall proceed according to conditions outlined in the relevant take authorizations.
- Mitigation for impacts to federally listed species and/or their habitat would be determined through section 7 ESA consultation between MCB Camp Pendleton and the USFWS. Additional Project specific measures developed during section 7 consultation would also be implemented as directed by the USFWS.
- State listed species with potential to occur onsite include: bank swallow, least Bell's vireo, southwestern willow flycatcher and western yellow-billed cuckoo. Impacts to potential or known habitat for these species should not proceed without consultation with the appropriate agencies including CDFW and MCB Camp Pendleton.

4.4.5 Potential Impacts

The Proposed Project includes reconductoring, removal of existing wood pole structures, and installation of new steel pole structures for the existing TL 695 and TL 6971 power lines. The operation and maintenance activities required for the power lines will not change from those currently required for the existing system; thus, no additional operation-related impacts related to biological resources will occur. Furthermore, maintenance will decrease slightly due to the removal of wood pole structures and the installation of steel pole structures. Therefore, the impact analysis is focused on construction activities that are required to install the new conductor, remove the existing wood pole structures, install the new steel pole structures, and establish required access and temporary work areas, as described in Chapter 3.0, Proposed Project Description.

4.4.5.1 Methodology

Potential impacts associated with the Proposed Project can be classified as temporary or permanent, and direct or indirect. Temporary impacts generally include impacts associated with construction activities, including the use of vehicles or helicopters to assemble and install new facilities and remove old equipment, the use of temporary workspace, storage of construction materials and equipment, or vegetation removal in areas to conduct construction activities. These areas are intended to be restored to approximate pre-construction conditions once construction is complete. Permanent impacts generally include impacts associated with construction and installation of a new facility, such as new pole structures and underground vaults.

Direct impacts include the physical loss or removal of vegetation due to the installation of new facilities or work at staging areas. Indirect impacts during construction may include the interruption of normal nesting or foraging behaviors, loss of prey items, such as insects or food resources, or the suppression of growth due to excessive dust or noise. Impacts to special status species may occur either through temporary or permanent habitat loss, interruption of normal species routines, or through direct mortality.

Potential impacts to special status species associated with the Proposed Project were assessed by analyzing species-specific requirements, including necessary vegetative habitat, elevational range, foraging needs, denning or breeding requirements, migratory trends, current ranges, and known occurrences or records.

4.4.5.2 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. The potential significance of project-related impacts on biological resources were evaluated for each of the criteria listed in the checklist, as discussed below.

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS? *Less than Significant*

Overview

Proposed Project impacts were calculated based on vegetation mapping, site-specific conditions, and proposed impact areas described above for features included in the Proposed Project design. Construction work spaces are dynamic in nature and may require minor modifications during the construction phase of the Proposed Project to facilitate worker safety and avoid impacts to natural resources, including sensitive habitats. Therefore, the proposed permanent and temporary impact areas discussed below are estimated and may shift or be modified within the PSA, as it may be modified by future studies pursuant to APM BIO-01.

The SDG&E NCCP dates back to1995, when SDG&E entered into an implementing agreement with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW). The NCCP prescribes "protocols" (i.e., various protection, mitigation, and conservation measures) that SDG&E implements. The NCCP identifies 61 operational protocols and eight additional vernal pool protocols that SDG&E routinely implements with every project to avoid and/or minimize impacts to biological resources. Although the NCCP will not be utilized to mitigate the impacts of constructing the Proposed Project, the following protocols will nonetheless be implemented to avoid and/or minimize potential impacts to biological resources:

Standard operating procedures for the Proposed Project include the NCCP Operational Protocols that provide for the general protection of biological resources, and reduce and/or eliminate potential impacts to resources include the following protocols:

- General Behavior for All Field Personnel (1-10)
- Training (11)
- Flagging Environmentally Sensitive Areas (14)
- Maintenance, Repair and Construction of Facilities (16-17, 19-20, 22-25, 27-31, 34-40)
- Maintenance of Access Roads (41-46, 48, 50, 52-53)
- Survey Work (54-56)
- Emergency Repairs (57-60)

Impacts to Vegetation Communities

Estimated permanent and temporary construction impacts to specific vegetation communities associated with the Proposed Project were calculated using anticipated permanent and temporary impact work areas described above. The anticipated impact areas per vegetation community are shown in detail in Table 4.4-5. SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to vegetation communities will be less than significant.

Table 4.4-5. Estimated Construction Impacts by Vegetation Community

Vegetation Community	Anticipated Area of Impact in Square Feet (Acres)
Temporary Impacts	
Nonnative grassland	61,791 (1.42)
Diegan coastal sage scrub	178,674 (4.10)
Southern sycamore alder riparian woodland	22,241 (0.05)
Disturbed habitat	128,933 (2.96)
Urban/developed	3,915,311 (89.88)
Total Estimated Temporary Impacts	**4,286,950 (98.41)**
Permanent Impacts	
Diegan coastal sage scrub	381 (.009)
Nonnative grassland	1,515 (0.035)
Southern sycamore alder riparian woodland	0 (0.00)
Disturbed habitat	682 (0.016)
Urban/developed	478 (0.015)
Total Estimated Permanent Impacts	**3,230 (0.075)**

**Notes:* These calculations do not include some recently added elements located outside the PSA. As applicable, these areas will need to be surveyed and the information will be provided in a supplement to the Biological Technical Report and this PEA.

Impact to Sensitive Habitats

Sensitive habitats are considered naturally occurring plant assemblages or restored habitats that are reasonably expected to support natural diversity and carrying capacities of sensitive and special status species in the region. For the purpose of this evaluation, sensitive habitats include Diegan coastal sage scrub, non-native grassland, and Southern sycamore alder riparian woodland.

Non-sensitive habitat types are those typically of a lower biological value and include bare ground, heavily disturbed areas, developed and urban areas (paved), and landscaping. Non-sensitive communities include disturbed habitat and urban/developed areas. These areas are not typically expected to provide major ecological value, contribute to the function of natural habitats and open space areas in the region, or support special status plant and wildlife species. A summary of estimated impacts to sensitive and non-sensitive habitat types is provided in Table 4.4-6.

SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to sensitive habitats will be less than significant.

Table 4.4-6. Estimated Impacts to Sensitive and Non-Sensitive Habitats

Type of Impact	Total Estimated Area of Impact in Square Feet (Acres)
Temporary Impacts	
Total Estimated Temporary Impacts to Sensitive (Native Vegetation Communities)	242,706 (5.57)
Total Estimated Temporary Impacts to Non-Sensitive (Developed or Disturbed Vegetation Communities)	4,044,244 (92.84)
Total Estimated Temporary Impacts	**4,286,950 (98.41)**
Permanent Impacts	
Total Estimated Permanent Impacts to Sensitive (Native Vegetation Communities)	1,896 (0.044)
Total Estimated Permanent Impacts to Non-Sensitive (Developed or Disturbed Vegetation Communities)	1,334 (0.031)
Total Estimated Permanent Impacts	**3,230 (0.075)**

**Note:* These calculations do not include some recently added elements located outside the PSA. As applicable, these areas will need to be surveyed and the information will need to be updated in the Biological Technical Report and this PEA.

Impacts to Special Status Plant Species

Construction activities could potentially impact special status plant species, depending on the final location of proposed facilities. Approximately 18 special status plant species have been observed or have potential to occur within the PSA. Of these 18 species, only one, thread-leaved brodiaea was observed on site. The remaining 17 special-status species have "moderate" potential to occur in a variety of natural and native habitats, however, these species were not observed during protocol surveys of the PSA in spring 2015. Permanent impacts to special status plant species could include the removal of plants during construction, population fragmentation, and the introduction of non-native species that may out-compete native plant species. Temporary impacts may include crushing or damaging plants, runoff, or sedimentation and erosion that could adversely impact plant populations by altering site conditions. Construction related dust could also reduce the rates of photosynthesis and hinder normal plant growth.

Impacts to thread-leaved brodiaea can be minimized by avoiding known populations and avoiding potential habitat to the extent possible. These areas will be identified prior to construction and flagged or fenced off during construction to avoid impacts to these species to the extent possible.

SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to special status plant species will be less than significant. Implementation of APM BIO-06 will further minimize less than significant impacts to any federally listed species.

Impacts to Special Status Wildlife Species

Construction activities could potentially impact special status wildlife species, depending on the final location of the proposed facilities. A total of 32 special status wildlife species have been observed or have potential to occur within the PSA. In addition, migratory birds and all active nests are protected year-round by the MBTA. Permanent impacts to special status wildlife species could include the removal of suitable habitat with Proposed Project facilities, or direct mortality to individuals, nests, burrows, and young as a result of construction. Temporary impacts may include temporary construction activities that alter normal behavior patterns, including migration and dispersal, courtship and mating, and foraging and roosting.

The installation of power pole structures shall comply with the Avian Power Line Committee protection plan guidelines. Flagging of sensitive habitats to be avoided to the extent feasible and monitoring are provided for as part of SDG&E NCCP Operational Protocols. Additional protocols that address general

worker behavior (speed limits, littering, prohibition of pets on site, etc.), and environmental awareness training will further reduce or eliminate potential impacts.

SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to special status wildlife species will be less than significant. Implementation of applicable APMs discussed below will further minimize less than significant impacts to special status species.

Invertebrates

Construction activities could potentially impact two federally listed invertebrate species, if present. San Diego (FE) and Riverside fairy shrimp (FE) have a moderate potential to occur in suitable habitat within the PSA. Protocol-level surveys have been conducted for the San Diego fairy shrimp and Riverside fairy shrimp, however, these species have not been observed in the PSA. Wet season surveys have been completed for these species, and neither species were detected during the surveys. Dry season surveys did not detect any federally listed species. In addition, neither species has been identified previously within the PSA, although non-special status fairy shrimp species have been observed in the PSA. Potential habitat for fairy shrimp species occurs within, ponded areas, and road ruts within and adjacent to Proposed Project access roads.

The Proposed Project has been designed to avoid permanent impacts to special status fairy shrimp species, if present, wherever possible. Potential impacts to fairy shrimp species, if present, as a result of temporary work areas such as stringing sites and equipment staging yards will be avoided. Indirect impacts to fairy shrimp, if present, as a result of normal access road use are not anticipated with implementation of Operational Protocols related to speed limits, erosion control, etc. Further, protocols such as flagging, and monitoring of sensitive habitats will further protect potential habitat.

SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to special status invertebrate species will be less than significant. Implementation of APM BIO-06 will further minimize less than significant impacts to any federally listed species.

Fish

The southern steelhead (FE, SSC) and tidewater goby (FE, SSC) have a moderate potential to occur on the Proposed Project, and construction activities could potentially impact these species, if present. Suitable habitat exists in San Mateo Creek and San Onofre Creek during periods of surface water flow. Although no focused surveys were conducted, these species were not observed during surveys conducted in the PSA, and the Proposed Project has been designed to avoid riparian and jurisdictional areas. Therefore, the impacts to these two species, if present within the limits of the Proposed Project, are expected to be minimal.

SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to special status fish will be less than significant. Implementation of APM BIO-06 will further minimize less than significant impacts to any federally listed species.

Amphibians

Construction of the Proposed Project has the potential to impact both the arroyo toad (FE, SSC) and western spadefoot (SSC). The arroyo toad was observed in San Mateo Creek and San Onofre Creek during protocol-level surveys in 2015, and the western spadefoot has a moderate potential to occur. The Proposed Project has been designed to avoid impacts to potential breeding habitat such as the drainages within the PSA; however, construction activities have the potential to impact upland foraging and aestivation habitat, such as grasslands. Construction activities could include impacts such as pole

structure hole excavation, pole structure installation and removal, wire installation activities, and temporary staging or storage of equipment and construction vehicles in suitable habitat.

SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to special status amphibian species will be less than significant. Implementation of APM BIO-05 will further minimize less than significant impacts to the arroyo toad.

Reptiles

Construction activities could potentially impact six special status reptile species. The coast patch-nosed snake, Coronado Island skink, northern red diamond rattlesnake, orange-throated whiptail, San Diego horned lizard, and two-striped garter snake (all SSC) have a moderate potential to occur. Impacts to these species could include individual mortality due to construction traffic or entrapment during construction activities, and loss of potential foraging and breeding habitat due to the installation of Project components. Impacts such as disruption of foraging behavior from active temporary work areas for installation of new pole structures, staging yards and stringing sites could also occur.

SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to special status reptile species will be less than significant.

Birds

Construction activities could potentially result in impacts to foraging and/or nesting habitat for 13 special status avian species that have either been observed within the PSA or have the potential to occur. Proposed Project activities that could result in impacts to avian species include removal of vegetation to facilitate pole structure hole excavation, pole structure installation and removal, wire installation activities, and temporary staging or storage of equipment and construction vehicles in suitable habitats. Other potential impacts to special status avian species include noise from construction equipment and vehicles.

The coastal cactus wren (BCC, SSC) was observed within the PSA during nesting surveys conducted in 2015, and there is a potential for impacts to this species as a result of construction of the Proposed Project. Implementation of NCCP Operational Protocols, which include flagging, avoidance to the extent practicable, and monitoring of sensitive habitats, and which together will minimize impacts to stands of cactus (the primary breeding and perching habitat for this species).

Numerous individuals of the coastal California gnatcatcher (FT, SSC) were observed during protocol surveys conducted in 2014 (as well as numerous incidental sightings during surveys conducted in 2015), and much of the coastal sage scrub habitat within the Proposed Project can be considered occupied gnatcatcher habitat. Additional surveys are recommended closer to construction to determine the most current coastal California gnatcatcher distribution within the Proposed Project, and protective measures for the coastal California gnatcatcher will be implemented during construction to minimize impacts to this species.

Least Bell's vireo (FE, SE) was observed in riparian habitats within the PSA during protocol-level surveys conducted in 2015, and there is a potential for impacts to this species as a result of the construction of the Proposed Project. The Proposed Project has been designed to avoid impacts to potential breeding habitat, such as the drainages within the PSA, which lowers the potential for impacts to least Bell's vireo during construction activities.

Protocol surveys for southwestern willow flycatcher FE, SE) were conducted in suitable riparian habitat within the PSA during the spring of 2015. No southwestern willow flycatchers were detected during the protocol surveys. In addition, the Proposed Project has been designed to avoid impacts to potential breeding habitat, such as the drainages found within the PSA, which also lowers the potential to impact this species (if present) during construction activities. Although there is a moderate potential for this species to occur within the Proposed Project due to the presence of suitable riparian habitat, if the species does not occur in the area then the potential for impacts to this species is minimal.

Nonbreeding season protocol surveys for the Western burrowing owl (BCC, SSC) were conducted within suitable habitat areas within the Proposed Project in December 2014 and January 2015. No burrowing owls or their sign were detected during the surveys. Although there is a moderate potential for this species to occur within the Proposed Project due to the presence of suitable habitat (grassland and other open areas), if the species does not occur in the area then the potential for impacts to this species is minimal.

The loggerhead shrike (BCC, SSC) was observed during surveys conducted for the Western burrowing owl in December 2014 and January 2015, and there is a potential for impacts to this species as a result of the construction of the Proposed Project.

Focused surveys for the Western yellow-billed cuckoo (FT, SE) were not conducted for the Proposed Project, however, protocol-level surveys were conducted for other special status avian species within potential riparian habitat areas within the Proposed Project. No Western yellow-billed cuckoo were detected during any of the previous surveys conducted for the Project, however, suitable riparian habitat does occur onsite, and there is a moderate potential for this species to occur. The Proposed Project has been designed to avoid impacts to potential breeding habitat (i.e., riparian areas), which also lowers the potential impacts to this species during construction activities.

Suitable habitat exists for the bank swallow (ST), grasshopper sparrow (SSC), Northern harrier (SSC), white-tailed kite (Fully Protected [FP]), yellow-breasted chat (SSC), and yellow warbler (BCC, SSC), however, none of these species were observed during the current surveys. There is a moderate potential for these species to occur within the Proposed Project. If present, there is also a potential for impacts to these species as a result of construction activities.

The above species as well as all migratory bird species and their active nests are protected under the MBTA. NCCP Operational Protocols as well as focused nesting bird surveys and avoidance would limit any impacts to nesting birds. In conclusion, SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to special status bird species will be less than significant. Implementation of APMs BIO-02, BIO-03, and BIO-05 will further minimize less than significant impacts to migratory bird species and/or federally listed species.

Mammals

Proposed construction activities may result in permanent and temporary impacts to seven special status mammal species that are either present or have a potential to occur within the Proposed Project. Proposed construction activities, including removing and installing power pole structures and clearing vegetation during creation of work areas and stringing sites, may cause both permanent and temporary impacts to special status mammal species, if present. Permanent impacts from these activities may include a reduction of foraging, burrowing, and nesting (woodrat) habitat from the installation of new facilities or the removal of existing facilities. Temporary impacts may result from trimming of native vegetation for temporary work areas, construction noise, and ground vibration, as mammals may be deterred from inhabiting or foraging in areas during construction activities.

The Dulzura pocket mouse (SSC) was detected during trapping surveys conducted in 2013 within portions of the PSA. Construction of the Proposed Project may result in impacts to individuals or habitat of the Dulzura pocket mouse.

Historically, the federally listed Pacific pocket mouse (FE, SSC) has been well documented as occurring in the vicinity of the Proposed Project, however, no Pacific pocket mouse were detected during surveys conducted within surveyed portions of the PSA in 2013 (Tremor 2013a, 2013b). No trapping was conducted in known occupied Pacific pocket mouse habitat, in order to minimize potential disturbance to the species. MCB Camp Pendleton and the U.S. Geological Survey have been conducting extensive surveys in Pacific pocket mouse habitat to determine population locations, densities, and other pertinent ecological information for this species at MCB Camp Pendleton. SDG&E will use the latest data from these studies to determine specific Pacific pocket mouse locations within the PSA. In coordination with MCB Camp Pendleton and the USFWS, additional surveys will be conducted as necessary to determine the most recent areas occupied by Pacific pocket mouse within the PSA, in order to avoid or minimize potential impacts to this species as a result of construction. Additional protective measures for the Pacific pocket mouse (i.e., APM BIO-04 and APM BIO-06) will be implemented during construction to minimize impacts to this species.

Suitable habitat exists for the American badger (SSC), northwestern San Diego pocket mouse (SSC), San Diego black-tailed jackrabbit (SSC), San Diego desert woodrat (SSC), and Western mastiff bat (SSC), however, none of these species were observed during the current surveys. There is a moderate potential for these species to occur within the Proposed Project. If present, there is also a potential for impacts to these species as a result of construction activities.

SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to special status mammal species will be less than significant. Implementation of APMs BIO-04 and BIO-06 will further minimize less than significant impacts to the Pacific pocket mouse and/or other federally listed species.

Impacts to Critical Habitat

Review of the INRMP revealed that critical habitat for all federal species (with the exception of the California brown pelican) have been excluded from the MCB Camp Pendleton due to benefits provided by the INRMP (MCB Camp Pendleton 2012). The PSA is not within designated critical habitat for the California brown pelican. Therefore the Proposed project will not result in any impacts to critical habitat on MCB Camp Pendleton. The northernmost portion of the PSA which lies outside of the boundaries of MCB Camp Pendleton, and falls within or crosses designated Critical Habitat for both the arroyo toad and coastal California gnatcatcher. Project components within critical habitat for these species include stringing sites, pole structures and conductor to be replaced, one helicopter ILA, and Talega Staging Yard 1. SDG&E will implement standard operating procedures as described in Section 4.4.5.2, Overview, and the impact to critical habitat will be less than significant. Implementation of applicable APMs will further minimize less than significant impacts to Critical Habitat.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS? *Less than Significant*

Sensitive natural communities are communities that have limited distribution statewide or within a county or region and are often vulnerable to the environmental effects of projects. Sensitive natural communities in the Proposed Project area are included in Section 4.4.3, Existing Conditions. The Proposed Project is

anticipated to result in permanent and temporary impacts to sensitive natural communities, as detailed in Table 4.4-7, Estimated Impacts to Sensitive and Non-Sensitive Habitats. Permanent direct impacts to these communities will occur as a result of vegetation clearing to install steel pole structures. Temporary direct impacts to sensitive natural communities may include vegetation clearing during construction activities. Indirect impacts will be considered temporary and may include additional dust deposition on the leaves of plants comprising sensitive natural communities, thus reducing their photosynthetic vigor. SDG&E will implement APMs and standard operating procedures (as defined above in the Overview discussion in Section 4.4.5.2) to minimize impacts on sensitive habitats. Therefore, the impact to sensitive natural communities will be less than significant.

Work on each individual power pole structure and/or tower will be localized and of relatively short duration, and will be conducted primarily within existing areas devoted to electric utilities; therefore, construction of the Proposed Project should not result in large-scale impacts across an extensive section of any particular native habitat. The Proposed Project will also avoid or span existing drainages to the extent possible. Therefore, construction of the Proposed Project is not expected to result in significant impacts to the functions and values of the sensitive natural communities.

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

The Proposed Project has been designed to avoid impacts to jurisdictional (aquatic) resources. The proposed footpath to access pole structures 124 and 125, located within the riparian habitat north of the Basilone Substation will consist of trimming of vegetation, and no permanent impacts for this activity are anticipated. Stringing site 15 will be shifted or reconfigured to avoid impacts to any jurisdictional feature. Vegetation trimming activities within this area are therefore not expected to require additional permits or authorizations by resource agencies.

No other pole structures or stringing sites are anticipated to be located within an existing jurisdictional water or wetland, and existing access roads will be used to the greatest extent possible. Staging areas, guard structures and other Proposed Project components will be located outside jurisdictional resources. If a Project component is located in the vicinity of an existing jurisdictional feature, proper erosion control measures will be taken and other measures will be implemented during construction to ensure the protection of the resource (refer to Section 4.9, Hydrology and Water Quality). While permanent impacts to these resources have been avoided through Proposed Project design, any temporary impacts to wetlands and waters occurring adjacent to proposed workspaces will also be avoided to the extent possible.

Indirect impacts to jurisdictional waters and wetlands would be avoided with implementation of standard operating procedures related to erosion control, spoils management, and use of Best Management Practices.

If unforeseen and unavoidable impacts to jurisdictional features are identified during the establishment of final workspace and/or changes to the Proposed Project, SDG&E will obtain the required authorizations and/or permits from the applicable regulatory agency prior to construction. Through implementation of the Proposed Project design, all conditions specified in permits obtained for the Proposed Project, as well as APMs (Section 4.4.4) and standard operating procedures, impacts to jurisdictional resources are expected to be less than significant.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? *Less than Significant*

As discussed above, while local wildlife movements may be temporarily disrupted during construction of the Proposed Project, the temporary and permanent impacts as a result of construction are not expected to significantly affect the movement of wildlife through MCB Camp Pendleton or along any existing or potential wildlife movement corridors within the base or within the PSA. Although the Proposed Project is over 10 miles in length, work on each individual power pole structure and/or tower will be localized and of relatively short duration, and should not result in large-scale impacts across an extensive section of native habitat. New pole structure placement for the Proposed Project will occur in the vicinity of existing structures within areas already used for electric utilities, and will result in minimal additional loss of protective cover, roosting or foraging habitat, by maintaining existing wide natural areas that allow for movement of species. The Proposed Project will also avoid or span existing drainages that can serve as wildlife movement corridors. Therefore, impacts to wildlife movement corridors as a result of construction of the Proposed Project are anticipated to be less than significant.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? *No Impact*

Construction and operation and maintenance of the Proposed Project will not conflict with any local environmental policies or ordinances promulgated to protect biological resources. While the majority of the Proposed Project is located within MCB Camp Pendleton, portions of the alignment are located in the City of San Clemente. Based on a review of applicable local policies, the Proposed Project will not conflict with local policies. Although the majority of the Proposed Project is located within the unincorporated area of San Diego County, county policies are not applicable because this area is under the jurisdiction of the U.S. Marine Corps. Therefore, the Proposed Project will not conflict with any local policies or plans protecting biological resources, and there will be no impact.

f) Would the project conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan? *No Impact*

Although the SDG&E Subregional NCCP will not be used for incidental take coverage for temporary and permanent impacts to biological resources resulting from construction of the Proposed Project, proposed construction activities, operations, and maintenance will implement applicable avoidance and minimization measures specified in the NCCP Operational Protocols. Therefore, there will be no impact.

4.4.6 References

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