3.4 BIOLOGICAL RESOURCES

3.4.1 Definitions

Sensitive Vegetation Communities/Habitats

Sensitive vegetation communities/habitats are those identified in local or regional plans, policies, or regulations, or by CDFW or USFWS. CDFW's Rarity Ranking follows NatureServe's Heritage Methodology (Faber-Langendoen, et al. 2012) in which communities are given a G (global) and S (State) rank based on their degree of imperilment (as measured by rarity, trends, and threats). Communities with a Rarity Ranking of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) are considered sensitive by CDFW. Sensitive habitats also include:

1. Areas that provide habitat for locally unique biotic species/communities (e.g., coastal sage scrub);
2. Habitat that contains or supports rare, endangered, or threatened wildlife or plant species as defined by CDFW and USFWS;
3. Habitat that supports CDFW Species of Special Concern;
4. Areas that provide habitat for rare or endangered species and that meet the definition of CEQA Guidelines Section 15380;
5. Coastal tidelands and marshes;
6. Coastal and off-shore areas containing breeding or nesting sites and coastal areas used by migratory and resident birds for resting and feeding;
7. Dune plant habitats;
8. Existing game and wildlife refuges and reserves;
9. Lakes, wetlands, estuaries, lagoons, streams, and rivers;
10. Riparian corridors; and
11. Environmentally Sensitive Habitat Areas (ESHA) within the California Coastal Zone

Special-Status Species

Special-status species are legally protected under the state and federal Endangered Species Acts (ESA) or other regulations, or are species that are considered sufficiently rare by the scientific community to qualify for such listing. These species are classified under the following categories:

1. Species listed or proposed for listing as threatened or endangered under the federal ESA (50 CFR § 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]);
2. Species that are candidates for possible future listing as threatened or endangered under the federal ESA (61 FR § 40, February 28, 1996);
3. Species listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 CCR § 670.5);

4. Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 *et seq.*);
5. Species that meet the definitions of rare and endangered under CEQA. CEQA Guidelines Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists;
6. Plants considered to be rare, threatened or endangered in California based on rare plant rankings by CDFW and California Native Plant Society (CNPS) (California Rare Plant Rank 1A, 1B, 2A, and 2B, 3 and 4 plant species);
7. Species designated by CDFW as Fully Protected or as a Species of Special Concern;
8. Species protected under the federal Bald and Golden Eagle Protection Act;
9. Birds of Conservation Concern or Watch List species; and
10. Species designated as Sensitive by MCB CPEN.

Project Study Area

The area surveyed for biological resources is referred to as the Project Study Area (PSA) in this section. The PSA covers the proposed project area (i.e., the physical limits of all proposed work areas), an approximately 300-foot survey corridor (approximately 150 feet on either side of the centerline) along the entire proposed project alignment, an approximately 50-foot buffer around staging yards, stringing sites, and work/staging/turnaround areas, and an approximately 20-foot buffer on either side of proposed access roads. The PSA includes a buffer from the proposed project area to (1) cover areas where potential indirect effects on biological resources (e.g., dust) could occur, and (2) accommodate minor changes in 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.

3.4.2 Approach to Data Collection

The biological resources analysis is based on literature review, database queries, biological surveys conducted by SDG&E, and professional judgment of qualified professionals.

Literature and Database Review

SDG&E conducted a search of the following databases and literature sources to develop a potential list of special status plant and wildlife species that could occur in the proposed project area (Pangea Biological 2015):

- California Natural Diversity Database (CNDDB) for a 1-mile buffer area surrounding the proposed project
- USFWS website
- CNPS Inventory of Rare and Endangered Vascular Plants of California
- SDG&E's Subregional Natural Community Conservation Plan (NCCP)
- MCB CPEN environmental documentation and electronic data
- San Diego County Bird Atlas

The CPUC updated SDG&E's special-status species inventory in October 2016 with a review of the CNDDB and MCB CPEN biological resources GIS data. The CPUC's review of the CNDDB included the following quadrangles surrounding the proposed project area:

- San Juan Capistrano
- Canada Gobernadora
- Sitton Peak
- Dana Point
- San Clemente
- Margarita Peak
- San Onofre Bluff
- Las Pulgas Canyon

Surveys

Biological surveys were conducted by SDG&E within the PSA during preparation of the PEA. Surveys were conducted between 2013 and 2016[1]. The following survey reports were peer reviewed by the CPUC team to assess baseline biological resource conditions within the proposed project area:

- **Biological Technical Report.** Documents the findings of both reconnaissance-level and focused biological and jurisdictional water and wetland surveys for most the PSA (Pangea Biological 2015).
- **Supplemental Update to the 2015 Biological Technical Report.** Summarizes the results of biological reconnaissance-level surveys for the remaining portions of the PSA not covered in the 2015 Biological Technical Report (Pangea Biological 2016).
- **Constraints Analysis.** Defines potential for special-status biological resources and jurisdictional water resources to occur within the PSA based on habitat mapping and a habitat suitability assessment (LSA Associates, Inc. 2013).
- **Biological Resources Survey Report.** Summarizes the results of biological resources surveys within the PSA including vegetation communities and sensitive species (AECOM 2014b).
- **Rare Plant Survey Report.** Documents the results of surveys for federally-listed, state-listed, and California Rare Plant Rank 1B through 4 plant species with potential to occur in the PSA (Cardno 2015a).
- **Wet Season Fairy Shrimp Report**. Documents the results of wet season protocol surveys for federally-listed fairy shrimp species (Cardno 2015b).
- **Dry Season Fairy Shrimp Report**. Documents the results of dry season protocol surveys for federally-listed fairy shrimp, including soil collection and cyst hatching (Cardno 2015c).
- **Southwestern Willow Flycatcher, Least Bell's Vireo, and Arroyo Toad Survey Report.** Documents the results of protocol surveys for these species in the PSA (Bloom Biological, Inc. 2015a).

[1] Several surveys are more than two years old. Species assumed to be present within the PSA are documented in Table 3.4-2. Subsequent surveys will be required for these species prior to construction.

- **Nonbreeding Season Western Burrowing Owl Survey Report.** Documents the results of focused burrowing owl surveys conducted in December 2014 and January 2015 (AECOM 2015).
- **Coastal Cactus Wren Breeding Survey Report**. Documents the results of coastal cactus wren surveys conducted in potential breeding habitat in the spring of 2015 (Bloom Biological, Inc. 2015b).
- **Coastal California Gnatcatcher Survey Report.** Documents the results of focused coastal California gnatcatcher surveys conducted in suitable habitat in August 2014 (AECOM 2014a).
- **Pacific Pocket Mouse Focused Survey Reports.** Documents the results of 2013 focused surveys for Pacific pocket mouse (Tremor 2013).
- **Jurisdictional Delineation Report.** Provides the results of a preliminary jurisdictional delineation performed for most the PSA in June and October 2015 (Pangea Biological and Borcher Environmental Management 2015).
- **Supplemental Jurisdictional Delineation.** Provides the results of a preliminary jurisdictional determination conducted within portions of the PSA not covered by the 2015 Jurisdictional Delineation Report (Borcher Environmental Management 2016).

3.4.3 Environmental Setting

Regional Setting

The terrain within the PSA is highly variable, ranging from relatively flat topography to rolling hills, and more steep and hilly terrain with ridges intermixed with drainages and canyons. The PSA ranges in elevation from approximately 25 to 545 feet amsl. The lower elevation ranges are along the flat grassy plains southeast of San Mateo Creek and northwest of Basilone Road; the higher elevation ranges are through the hilly terrain of Segment B north of Basilone Road. The PSA includes primarily undeveloped areas with a network of existing dirt and paved roads, and existing utility poles and structures.

Proposed Project Setting

Vegetation Communities

Ten vegetation communities and other land cover types were identified within the PSA. Table 3.4-1 provides a summary of the characteristics of each vegetation community and other land cover types within the PSA. Vegetation communities mapped within the PSA are shown on Figure 3.4-1 and Figure 3.4-2 and in detail on Figures C.1-1 through C.1-25 in Appendix C.

Waters of the US and Waters of the State

A delineation of wetland and non-wetland waters within the PSA was conducted between June 1 and June 5, and on October 2, 2015 (Pangea Biological and Borcher Environmental Management 2015). A supplemental wetland delineation was conducted on June 8, 9, and 14, 2016 (Borcher Environmental Management 2016). Methodology followed the ACOE Regional Supplement Wetland Delineation Manual: Arid West Region (Version 2.0) guidelines and consisted of preliminary data gathering and research, field assessment surveys, digital

Table 3.4-1 Vegetation Communities within the Project Study Area

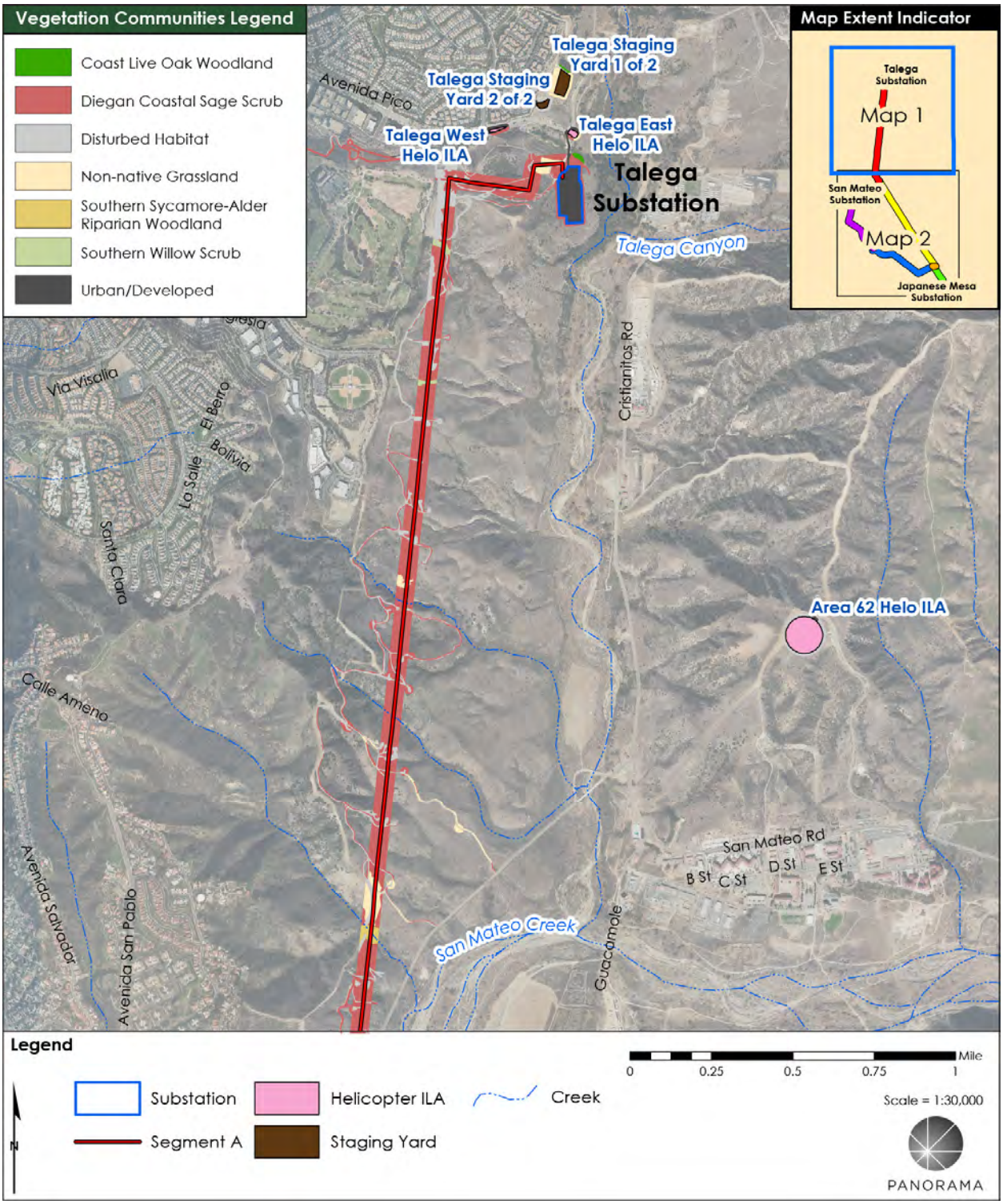
Vegetation Community	Characteristics	Dominant Species	Locations in PSA
Grassland			
Nonnative Annual Grassland	Characterized by a dense to sparse cover of annual grasses and forbs of Mediterranean origins, often with native and nonnative forbs. Generally, occurs on fine-textured loam or clay soils that are moist or even waterlogged during the winter rainy season, and very dry during the summer and fall.	• Ripgut brome (*Bromus diandrus*) • Red brome (*Bromus madritensis* ssp. *rubens*) • Soft chess (*Bromus hordeaceus*) • Wild oats (Avena spp.) • Rat-tail fescue (*Vulpia myuros*) • Filaree (*Erodium* sp.) • Horseweed (*Erigeron canadensis*)	Found alongside firebreaks along ridge tops, interspersed between Diegan coastal sage scrub, and around areas that have been historically disturbed throughout the PSA.
Scrubland			
Diegan Coastal Sage Scrub	Dominated by relatively low-lying shrubs. It is typically less than 6 feet in height, soft-leaved, and drought-deciduous.	• California sagebrush (*Artemisia californica*) • California buckwheat (*Eriogonum fasciculatum* var. *fasciculatum*) • Laurel sumac (*Malosma laurina*) • Lemonadeberry (*Rhus integrifolia)* • Broom baccharis (*Baccharis sarothroides*) • Black sage (*Salvia mellifera*)	Diegan coastal sage scrub is the dominant vegetation community found throughout the PSA.
Riparian/Wetland			
Mulefat Scrub	Riparian shrub community that is strongly dominated by mulefat. 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.	• Mulefat (Baccharis salicifolia) • Western ragweed (Ambrosia psilostachya) • Willow dock (Rumex salicifolia)	Mulefat scrub occupies floodplain areas of San Mateo and San Onofre Creeks within the PSA.

Vegetation Community	Characteristics	Dominant Species	Locations in PSA
Non-vegetated Channel	Sparsely-vegetated natural flood channels. 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.	No vegetation	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	Commonly found along rocky stream beds that are subject to periodic high-intensity flooding.	• Western sycamore (*Platanus racemosa*) • White alder (*Alnus rhombifolia*) • Blue elderberry (*Sambucus mexicana*) • Douglas mugwort (*Artemisia douglasiana*) • Scale-broom (*Lepidospartum squamatum*) • Poison oak (*Toxicodendron diversilobum*) • Willows (*Salix* spp.)	Primarily located along the more stabilized banks of the San Mateo and San Onofre Creeks.
Southern Willow Scrub	Dense, closed-canopy scrub that occurs throughout California in association with riverine features. Lacks taller trees that are characteristic of riparian forests.	• Mulefat • Arroyo willow (*Salix lasiolepis*) • Coyote brush (*Baccharis pilularis*) • California sagebrush • Western ragweed	Found within some small drainage features and within San Mateo and San Onofre Creeks. A small area of southern willow scrub is located in the northeastern part of the PSA.
Upland Woodland			
Eucalyptus Woodland	Eucalyptus 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.	Eucalyptus (*Eucalyptus* spp.)	Found in upland areas adjacent to San Onofre Creek.

Vegetation Community	Characteristics	Dominant Species	Locations in PSA
Coast Live Oak Woodland	Open to dense tree community. Shrub understory of this community is well developed in undisturbed sites. Well-represented on MCB CPEN and can co-occur with Diegan coastal sage scrub, valley needlegrass grassland, and other types of oak woodland.	• Coast live oak (*Quercus agrifolia*) • Blue elderberry • Laurel sumac (*Malosma laurina*) • Poison oak • Toyon (*Heteromeles arbutifoloia*) • Miner's lettuce (*Claytonia perfoliata* var. *perfoliata*) • Chickweed (*Stellaria media*) • Nonnative grasses	Found in the far northeastern part of the PSA.
Disturbed/Developed			
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, powerline access roads and areas around power poles, construction staging areas, or any repeated use areas. Examples of repeated use areas are trails, access roads, and dirt parking lots.	• 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.) • Black mustard (*Brassica nigra*) • Radish (*Raphanus sativus*) • Hottentot fig (*Carpobrotus edulis*) • Garland chrysanthemum (*Glebionis coronaria*) • Fennel (*Foeniculum vulgare*)	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.
Urban/Developed	Not necessarily considered a vegetation community and typically support no or very few biological resources. Includes buildings, paved areas, and ornamental landscaping. These areas include lawns, parks, road medians, and roadsides.	• African daisy (*Arctotis* sp.) • Eucalyptus • Peruvian pepper tree (*Schinus molle*) • Myoporum (*Myoporum laetum*) • African fountain grass (*Pennisetum setaceum*)	Areas of ornamental/ landscape plantings occur throughout the PSA. Other developed areas include graveled or paved parking lots (e.g., SONGS Mesa).

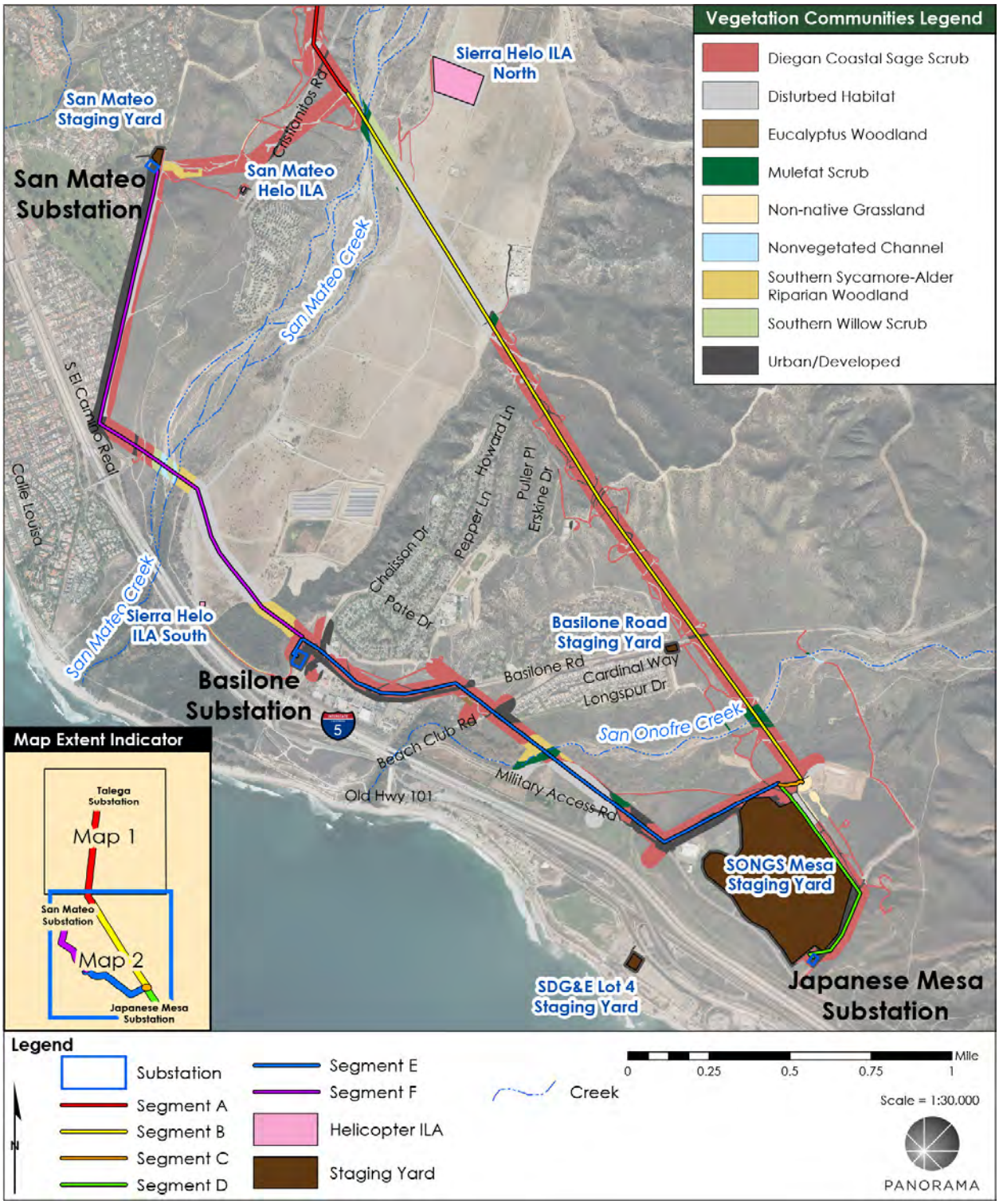
Source: (Pangea Biological 2015)

Figure 3.4-1 Vegetation Communities in the Project Study Area (Map 1 of 2)



Sources: (SDG&E 2016, SANDAG 2016, AECOM 2014c)

Figure 3.4-2 Vegetation Communities in the Project Study Area (Map 2 of 2)



Sources: (SDG&E 2016, SANDAG 2016, AECOM 2014c)

mapping, and documentation of final boundary determinations. In addition to the wetland delineation reports provided by SDG&E, the CPUC obtained MCB CPEN GIS data for vernal pools to define additional locations of potential vernal pools that may occur within the PSA.

Wetlands, vernal pools, and other water resources within the PSA are shown on Figures C.2-1 through C.2-25 in Appendix C.

Special-Status Species

Special-status plant and wildlife species listed on the CNDDB within the nine quadrangles surrounding the proposed project and/or species included in focused surveys are provided in Appendix C, Tables C-1 and C-2, and Figures C.3-1 through C.3-25. The probability of occurrence in the PSA was determined for each of these species using the following criteria:

- **Present.** Species detected during recent surveys within the PSA.
- **High Potential.** Species with known recent (i.e., last 25 years) recorded occurrences/populations in the PSA or nearby, and for which highly suitable habitat occurs within the PSA. Suitable habitat includes all necessary elements to support the species (e.g., habitat type, cover, and food resources).
- **Moderate Potential.** Species with known recent (i.e., last 25 years) recorded occurrences/populations nearby; however, suitable habitat in the PSA is moderately disturbed. Suitable habitat could be fragmented or small in size. A "moderate potential" assessment was also made for species that have suitable habitat within the PSA, but the project area is at the edge of the species' range or there are no reported occurrences nearby.
- **Low Potential.** Species with few known recent (i.e., last 25 years) recorded occurrences/populations nearby, and suitable habitat within the PSA is highly disturbed or extremely limited. Includes species with known historical (i.e., more than 25 years) recorded occurrences/populations from the site or nearby, but suitable habitat in the PSA has been severely reduced or disturbed since past documentation. Additionally, species for which potentially suitable habitat is present within the PSA, but the reported extant range is far outside the PSA.
- **Absent.** Species with no suitable habitat in the PSA.

Special-status plant and wildlife species with a moderate or high potential to occur in the PSA are identified in Table 3.4-2. Descriptions of these species and their habitat requirements are provided in Appendix C, Tables C-1 and C-2.

Table 3.4-2 Special-Status Species with Moderate or High Potential to Occur in the Project Study Area

Species	Status [a]	No. Detected or Nearest Occurrence	Potential to Occur
Plants			
Aphinisma *Aphanisma blitoides*	1B.2	Observed 3 miles southeast of the PSA	Moderate
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	1B.1	Observed 2.5 miles west of the PSA	Moderate
Bigleaved crownbeard *Verbesina dissita*	FT, ST, 1B.1	Observed 9.1 miles west of the PSA	Moderate
Brand's star phacelia *Phacelia stellaris*	1B.1	Present on MCB CPEN per the INRMP	Moderate
California boxthorn *Lycium californicum*	4.2	Approximately 100 individuals were observed in the PSA in 2015	Present
California satintail *Imperata brevifolia*	2B.1	Observed 5 miles north of the PSA	Moderate
California screw moss *Tortula californica*	1B.2	Observed 13 miles northeast of the PSA	Moderate
Chaparral nolina *Nolina cismontana*	1B.2	Observed 1.8 miles east of the PSA	Moderate
Chaparral ragwort *Senecio aphanactis*	2B.2	Observed 0.3 mile west of the PSA	Moderate
Coastal dunes milk-vetch *Astragalus tener* var. *titi*	FE, SE, 1B.1	Present on MCB CPEN per the INRMP	Moderate
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	1B.1	Present in the PSA in 2008 (MCB CPEN n.d.)	High
Coulter's matilija poppy *Romneya coulteri*	4.2	Approximately 150 individuals were observed in the PSA in 2015	Present
Coulter's saltbush *Atriplex coulteri*	1B.2	Observed 0.9 mile southeast of the PSA in 2012	Moderate
Decumbent goldenbush *Isocoma menziesii* var. *decumbens*	1B.2	Observed 1.9 miles southeast of the PSA	Moderate
Intermediate mariposa lily *Calochortus weedii* var. *intermedius*	1B.2	Observed 0.3 mile north of the PSA	Moderate

Species	Status [a]	No. Detected or Nearest Occurrence	Potential to Occur
Laguna Beach dudleya *Dudleya stolonifera*	FT, ST, 1B.1	Observed 10 miles northwest of the PSA, south of Laguna Beach	Moderate
Little mousetail *Myosurus minimus* ssp. *apus*	3.1	Observed 0.04 mile west of the PSA	Moderate
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	1B.2	Observed 3.2 miles east of the PSA	Moderate
Many-stemmed dudleya *Dudleya multicaulis*	1B.2	Observed 0.04 mile east of the PSA	Moderate
Mesa horkelia *Horkelia cuneata* ssp. *puberula*	1B.1	Observed 7.3 miles north of the PSA	Moderate
Nuttall's scrub oak *Quercus dumosa*	1B.1	Observed 4.0 miles west of the PSA	Moderate
Palmer's grapplinghook *Harpagonella palmeri*	4.2	200 plants observed in 1996 within the PSA	Moderate
Paniculate tarplant/tarweed *Deinandra paniculata*	4.2	Observed in several locations in populations ranging from single individuals to hundreds of individuals in 2015	Present
Pendleton button-celery *Eryngium pendletonense*	1B.1	Observed 0.02 mile west of the PSA 2016	Moderate
Parry's tetracoccus *Tetracoccus dioicus*	1B.2	Observed 11.3 miles northeast of the PSA	Moderate
Prostrate vernal pool navarettia *Navarettia prostrata*	1B.1	Observed 0.2 mile southwest of the PSA	Moderate
Robinson's pepper-grass *Lepidium virginicum* var. *robinsonii*	4.3	Observed 1.7 miles southeast of the PSA in 2007	Moderate
San Diego barrel cactus *Ferocactus viridescens*	2B.1	Four plants observed in 2009 approximately 9 miles southeast of the PSA	High
San Diego button celery *Eryngium aristulatum* var. *parishii*	FE, SE, 1B.1	Observed 6.7 miles southeast of the PSA	Moderate
San Diego County viguiera *Viguiera laciniata*	4.2	Hundreds of individuals were observed on the slopes surrounding the Talega Substation in 2015	Present
Sea dahlia *Leptosyne maritima*	2B.2	333 plants observed in 2011, 8.1 miles southeast of the PSA	High

Species	Status [a]	No. Detected or Nearest Occurrence	Potential to Occur
Smooth tarplant *Centromadia pungens* ssp. *laevis*	1B.1	Observed 12.3 miles southeast of the PSA	Moderate
South coast saltscale *Atriplex pacifica*	1B.2	Within Surf Beach and Trestles areas within PSA, sampled in 1994	Moderate
Spreading navarretia *Navarretia fossalis*	1B.1	Observed 11.8 miles southeast of the PSA between 1998 and 2001	Moderate
Sticky dudleya *Dudleya viscida*	1B.2	Observed 13.6 miles southeast of the PSA in 1997	Moderate
Thread-leaved brodiaea *Brodiaea filifolia*	FT, SE, 1B.1	Four populations were observed during protocol surveys conducted in 2015	Present
Variegated dudleya *Dudleya variegata*	1B.2	Potentially suitable habitat present in the PSA	Moderate
Western dichondra *Dichondra occidentalis*	4.2	Single population of approximately 250 individuals observed in the PSA in 2015	Present
White-rabbit tobacco *Pseudognaphalium leucocephalum*	2B.2	Observed within the PSA in 2014	Present
Fish			
Arroyo chub *Gila orcuttii*	SSC	Observed 4 miles north of the PSA	Moderate
Southern California steelhead *Oncorhynchus mykiss irideus*	FE	Observed within PSA in 2003. A major steelhead watershed in the fish's recovery planning area is San Mateo Creek (National Marine Fisheries Service 2012), and this fish is reported to the CNDDB as presumed extant in San Mateo Creek from the Pacific Ocean upstream through MCB CPEN to the creek's confluence with Los Alamos Canyon in Cleveland National Forest.	High
Tidewater goby *Eucyclogobius newberryi*	FE, SSC	Observed within PSA in 1997	Moderate
Amphibians			
Arroyo toad *Anaxyrus californicus*	FE, SSC	One individual along San Mateo Creek and three individuals along San Onofre Creek were observed within the PSA in 2015	Present
Coast Range newt *Tericha torosa*	SSC	Observed 6.6 miles east of the PSA	Moderate
Western spadefoot *Spea hammondii*	SSC	Tadpoles observed within PSA in 2001	Moderate

Species	Status [a]	No. Detected or Nearest Occurrence	Potential to Occur
Reptiles			
Coast patch-nosed snake *Salvadora hexalepis virgultea*	SSC	Present on MCB CPEN per the INRMP	Moderate
Coast horned lizard *Phrynosoma blainvillii*	SSC	Reported to the CNDDB along San Mateo creek on MCB CPEN	High
Coastal whiptail *Aspidoscelis tigris stejnegeri*	SSC	Reported to the CNDDB along San Mateo Creek on C MCB CPEN	High
Coronado island skink *Plestiodon skiltonianus interparietalis*	WL	Reported to the CNDDB along San Mateo Creek on MCB CPEN	High
Orange-throated whiptail *spidoscelis hyperythrus*	WL	Reported to the CNDDB along San Mateo Creek on MCB CPEN	High
Red-diamond rattlesnake *Crotalus ruber*	SSC	Reported to the CNDDB on MCB CPEN	High
San Diego banded gecko *Coleonyx variegatus abbotti*	SSC	Observed 5.2 miles east of the PSA. Reported to the CNDDB along San Mateo Creek on MCB CPEN. Not found during intensive survey in 1998; however, assumed present on MCB CPEN.	Moderate
Two-striped garter snake *Thamnophis hammondii*	SSC	Observed 4.7 miles northwest of the PSA	Moderate
Western pond turtle *Emys marmorata*	FC, SSC	Observed 0.2 mile west of the PSA	Moderate
Birds			
Burrowing owl *Athene cunicularia*	BCC, SSC	One individual observed 0.002 mile north of SDG&E Lot 4 Staging Yard in 2004	Moderate
California horned lark *Eremophila alpestris actia*	WL	Observed 4.2 miles southeast of the PSA	Moderate
Coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*	BCC, SSC	Two inactive nests and four individuals detected during focused surveys of the PSA in 2015	Present
Coastal California gnatcatcher *Polioptila californica californica*	FT, SSC	108 detected during focused surveys of the PSA in 2014; observed in the PSA during burrowing owl surveys in 2015	Present
Cooper's hawk *Accipiter cooperii*	WL	Observed in the PSA during burrowing owl surveys in 2015	Present

Species	Status [a]	No. Detected or Nearest Occurrence	Potential to Occur
Least Bell's vireo *Vireo bellii pusillus*	FE, SE	24 detected within the PSA in 2015	Present
Loggerhead shrike *Lanius ludovicianus*	BCC, SSC	Two detected during surveys in 2015 and 2016	Present
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	WL	Observed in the PSA during burrowing owl surveys in 2015	Present
Southwestern willow flycatcher *Empidonax traillii extimus*	FE, SE	Individuals observed within the PSA in 2013	Moderate
Western yellow-billed cuckoo *Coccyzus americanus*	FT, SE	Present on MCB CPEN per the INRMP	Moderate
White-tailed kite *Elanus leucurus*	FP	Observed 0.04 mile north of the PSA in 2001	Moderate
Yellow-breasted chat *Icteria virens*	SSC	One individual observed within the PSA in 2014	Moderate
Yellow warbler *Dendroica petechia*	BCC, SSC	One individual observed adjacent to the PSA in 2014	Moderate
Mammals			
American badger *Taxidea taxus*	SSC	Observed 8.4 miles north of the PSA	Moderate
Dulzura pocket mouse *Chaetodipus californicus femoralis*	SSC	Two detected north and south of San Mateo Creek	Present
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	SSC	Reported to the CNDDB on MCB CPEN	Moderate
Pacific pocket mouse *Perognathus longimembris pacificus*	FE, SSC	Individuals observed within Segment B or the PSA in 2005	Present
Pallid bat *Antrozous pallidus*	SSC	Observed 1.8 miles east of the PSA	Moderate
Pocketed free-tailed bat *Nyctinomops femorosaccus*	SSC	Observed 1.8 miles east of the PSA in 1997	Moderate
San Diego black-tailed jackrabbit *Lepus californicus bennetti*	SSC	Present on MCB CPEN per the INRMP	Moderate

Species	Status [a]	No. Detected or Nearest Occurrence	Potential to Occur
San Diego desert woodrat *Neotoma lepida intermedia*	SSC	Nine adults and juveniles observed within the PSA in 2002	Moderate
Western mastiff bat *Eumops perotis californicus*	SSC	Observed 1.7 miles east of the PSA	Moderate

Note:

[a] Federal/State Status:

- BCC USFWS Birds of Conservation Concern
- FE Federallylisted endangered
- FT Federallylisted threatened
- FC Candidate for federal endangered species list
- FP Fully protected
- SE State-listed endangered
- ST State-listed threatened
- SSC California Department of Fish and Wildlife Species of Special Concern
- WL California Department of Fish and Wildlife Watch List

CRPR = California Rare Plant Rank:

- 1A Plants presumed extinct in California
- 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 in California, but more common elsewhere
- 3 Plants about which we need more information – A review list
- 4 Plants of limited distribution – A watch list

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)

Sources: (CNPS 2016, CDFW 2016a, CDFW CNDDB 2016, CDFW 2016c, NatureServe 2015, National Marine Fisheries Service 2012, Pierson, Rainey and Corben 2006, USFWS n.d., Unitt, Mercieca and Kovstad 2004, CDFW 2016b) (MCB CPEN n.d.)

Critical Habitat

A search of the USFWS Critical Habitat Portal was conducted to identify whether the proposed project would be located within any USFWS-designated critical habitat areas. Recovery plans for listed species and GIS data from the USFWS website and the MCB CPEN Integrated Natural Resources Management Plan (INRMP) were also reviewed. Areas within MCB CPEN, which are covered by the INRMP, have been precluded from USFWS Critical Habitat designation because the INRMP provides comparable habitat protections. Figure 3.4-3 shows critical habitat areas in the proposed project area and vicinity. Portions of Segments D, E, and F would be located within the California Coastal Zone. Part of the Talega 1 staging yard and Talega East Helo ILA would overlap with critical habitat for arroyo toad.

Sensitive Habitats

ESHA 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" (CCC 2016). Proposed development within and adjacent to an ESHA must be located and designated to prevent significant impacts to the functions and values of the ESHA.

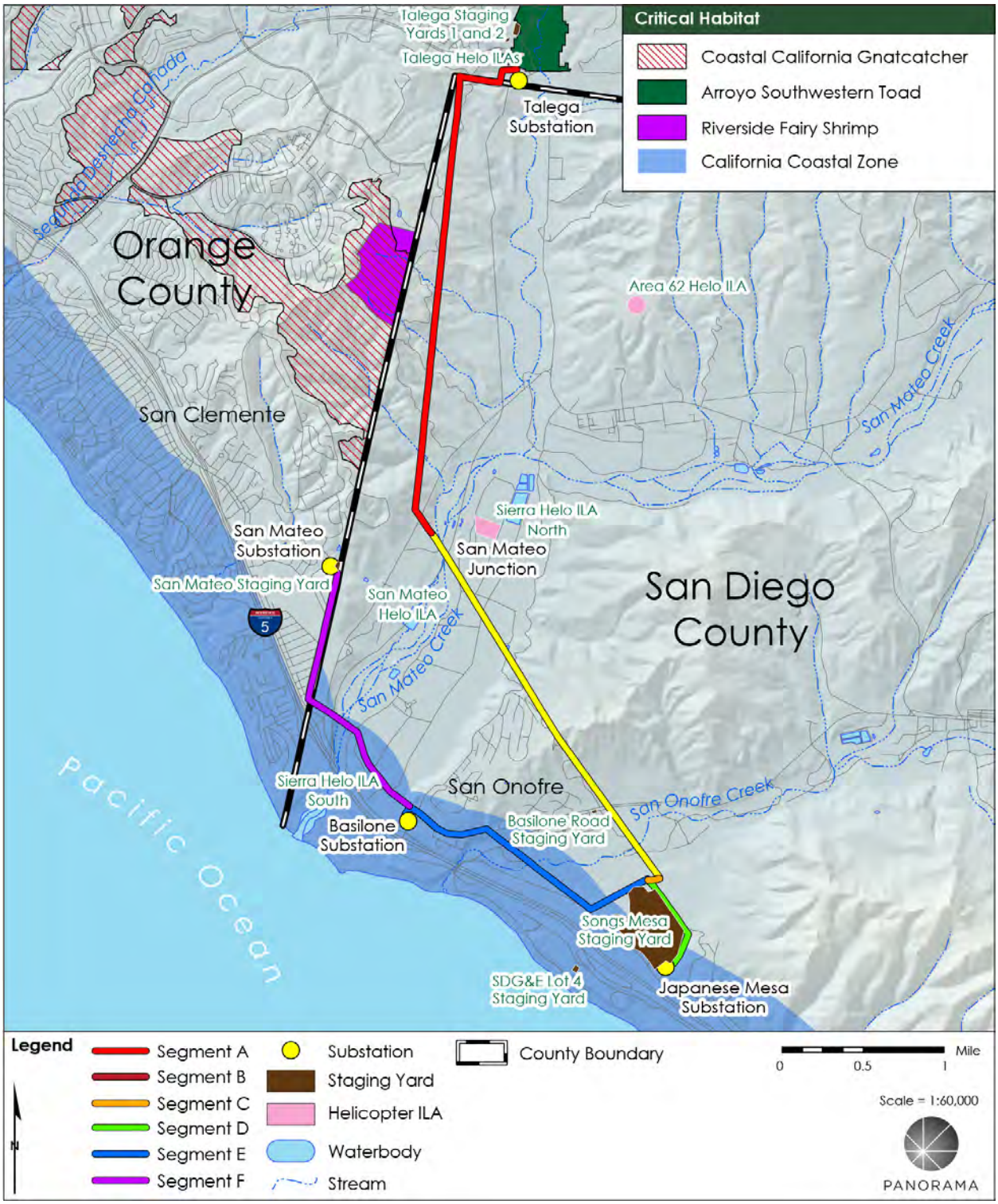
Native vegetation communities within the PSA can be considered ESHAs if they provide potential habitat for several sensitive plant and wildlife species. Areas such as compacted bare ground and areas of high disturbance would not typically be considered ESHAs; however, these areas could retain water during storm events, resulting in potential habitat for sensitive fairy shrimp species. Areas within the California Coastal Zone, which are regulated under the California Coastal Act (CCA), are shown in Figure 3.4-3.

Wildlife 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 allow gene flow between populations. Terrestrial wildlife species may travel through the proposed project area along natural drainages, such as San Mateo and San Onofre Creeks, which could provide protective cover from predators as well as a consistent source of water and food. Migrating avian species use habitat areas as stopovers on their journey through the area to wintering sites south of the proposed project, and nesting areas the north of the proposed project.

Many of the open space areas within and adjacent to MCB CPEN, 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 the proposed project area and adjacent open space lands (MCB CPEN 2012). The large habitat areas on MCB CPEN generally allow unrestricted access to the north toward permanently designated

Figure 3.4-3 Coastal Zone and Critical Habitats in the Proposed Project Area



Sources: (SDG&E 2016, Data Basin 2015)

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.

Wildlife movement on MCB CPEN is facilitated by the several watersheds and small coastal drainages on the military base. 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, and grassland vegetation on canyon slopes and along ridgelines. These areas facilitate wildlife movement and provide food and cover for many wildlife species. Within the PSA, San Onofre Creek and San Mateo Creek offer the best direct connection for wildlife to the beaches and coastal bluffs of MCB CPEN.

Potential north-south wildlife movement occurs on MCB CPEN through the inland mountains and the coastal belt located just east of the I-5 corridor. Other potential north-south wildlife movement on MCB CPEN 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 CPEN 2012).

Policies, Ordinances, and Plans for the Protection of Biological Resources

Marine Corps Base Camp Pendleton

MCB CPEN has developed several plans for the protection of biological resources, including:

- **Integrated Natural Resources Management Plan.** The INRMP was prepared pursuant to the Sikes Act for conservation and rehabilitation of natural resources on MCB CPEN consistent with the use of the military base. The INRMP defines MCB CPEN's environmental security practices and addresses management actions for 18 federally-listed species, 2 candidate species, and 5 state-listed species.
- **Riparian Ecosystem Conservation Plan.** MCB CPEN has adopted a Riparian Ecosystem Conservation Plan in support of a Biological Opinion for least Bell's vireo. The Riparian Ecosystem Conservation Plan promotes an increase in the quantity of riparian woodland and riparian scrub habitat beyond the baseline established in the Santa Margarita River Memorandum of Understanding (MCB CPEN 2012). Conservation efforts are focused on eradicating exotics from riparian habitat areas and increasing riparian woodland, riparian scrub, or open gravel areas to promote growth in sensitive species (primarily vireo, flycatcher, and arroyo toad) populations (MCB CPEN 2012). The plan includes mitigation ratios for temporary and permanent impacts on riparian habitat to meet the habitat conservation goals for riparian habitat within MCB CPEN.

These plans define goals for management and protection of biological resources within MCB CPEN. The plans apply specifically to MCB CPEN activities and do not apply to SDG&E projects conducted within the military base. While these plans do not specifically apply to the project, they were used as a reference when defining appropriate mitigation measures to avoid, minimize, and compensate for proposed project impacts consistent with the overall goals and strategies for protection of biological resources within MCB CPEN.

MCB CPEN is in the process of adopting a management plan for Pacific pocket mouse. The plan was not available for review at the time of the drafting of this IS/MND.

MCB CPEN's habitat restoration efforts performed as part of the military base's environmental stewardship are conducted under the Land Management Branch's Sustainable Ecosystem Management Program (MCB CPEN 2012). MCB CPEN habitat restoration may be required as a condition of obtaining a permit, or as mitigation or compensation to offset temporary or permanent impacts or loss of habitat from a USACE permit, USFWS Biological Opinion, or NEPA document (MCB CPEN 2012). Habitat restoration areas are located throughout MCB CPEN and include areas disturbed by MCB CPEN activities. Within the proposed project area, habitat restoration areas include areas along San Mateo and San Onofre Creeks, access roads, training areas, and vernal pools. The PSA includes several MCB CPEN habitat restoration areas as shown in Attachment C, Figures C.4-1 through C.4-25.

City of San Clemente

The City of San Clemente has adopted Policy 301-2-1 and Ordinance 1115 for the protection of City of San Clemente street trees and trees within City of San Clemente parks. The policy defines procedures for City of San Clemente maintenance of City-owned trees and removal or relocation of street trees at the request of property owners and upon approval of the Director of Beaches, Parks, and Recreation.

3.4.4 Applicant Proposed Measures

SDG&E has proposed measures to reduce environmental impacts. Most these APMs have been superseded with mitigation measures, which are provided in Section 3.4.6. SDG&E proposed APMs and the superseding mitigation measures are provided in Table 3.4-3.

Table 3.4-3 Application Proposed Measures for Biological Resources

APM	Superseded or Revised?
APM BIO-01: 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.	Superseded by MM Biology-6: Mitigation for Bird Species
APM BIO-02: 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	Superseded by MM Biology-7: Coastal California Gnatcatcher Avoidance and Minimization

APM	Superseded or Revised?
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: 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.	Superseded by MM Biology-11: Mitigation for Pacific Pocket Mouse
APM BIO-04: 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, except in rare circumstances where there is a need to finish unplanned/delayed work or for public safety or other emergency. A qualified biologist will perform pre-activity survey(s) and monitor the work within arroyo toad habitat, as needed. • 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.	Superseded by MM Biology-5: Arroyo Toad Avoidance and Minimization
APM BIO-05: 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	Added thread-leaved brodiaea to list of state listed species.

APM	Superseded or Revised?
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: thread-leaved brodiaea, 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.	

3.4.5 Impact Analysis

Summary of Impacts

Table 3.4-4 presents a summary of the CEQA significance criteria and impacts on biological resources that would occur during construction, operation, and maintenance of the proposed project.

Table 3.4-4 Summary of Proposed Project Impacts on Biological Resources

Would the Proposed Project:	Potentially Significant Impact	Less than Significant Impact 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 CDFW or USFWS?	☐	☒	☐	☐
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 CDFW or USFWS?	☐	☒	☐	☐
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?	☐	☒	☐	☐

Would the Proposed Project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☒	☐	☐

Impact Discussion

a) Would the proposed 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 CDFW or USFWS?	**Significance Determination**
	Less than significant with mitigation

Construction

Direct Impacts

Special-Status Plants

Populations of special-status thread-leaved brodiaea, paniculate tarweed, and California boxthorn were detected within or adjacent to proposed project work areas and access roads during project planning surveys.

Thread-leaved brodiaea. Populations of thread-leaved brodiaea were detected near project work areas and access roads during project planning surveys. Project planning surveys were conducted in the spring of 2015 according to MCB CPEN thread-leaved brodiaea survey protocols. The project configuration and proposed access routes would avoid direct impacts on thread-leaved brodiaea populations; however, impacts could potentially occur during construction because of minor project refinements (refer to Section 4: Mitigation Monitoring and Reporting Program for a description of the minor project refinement process), or if a contractor were to accidentally travel into areas that contain the species. Thread-leaved brodiaea is a federally-threatened and state-endangered species. The species is seriously threatened in California. Removal of individual thread-leaved brodiaea would be a significant impact due to the limited numbers of plants and populations of this species throughout the region and state. MM Biology-1 requires avoidance of all surveyed populations of thread-leaved brodiaea within

the proposed project area, and worker training on identification and avoidance of thread-leaved brodiaea. Under MM Biology-1, SDG&E would be required to establish environmentally sensitive areas around all populations of thread-leaved brodiaea within 50 feet of a work area, or 20 feet of an access road, and adjust or relocate work area as needed to avoid impacts on thread-leaved brodiaea. Impacts on thread-leaved brodiaea would be less than significant with mitigation.

California boxthorn and paniculate tarweed. Populations of California boxthorn and paniculate tarweed occur within access roads and near work areas. California boxthorn and paniculate tarweed are ranked CRPR 4.2. Plants with a CRPR rank of 4 are of limited distribution or infrequent throughout a broader area in California. The 0.2 rank denotes that the plant is moderately threatened in California. CRPR rank 4 plants are not threatened or endangered and are not protected by CDFW or USFWS. Impacts on CRPR rank 4 plants could be significant if the populations are at the periphery of the species' range, in areas where the taxon is especially uncommon or has sustained heavy losses, or on populations exhibiting unusual morphology, or occurring on unusual substrates. The populations of California boxthorn and paniculate tarweed that could be impacted by the proposed project do not meet any of these criteria, because both California boxthorn and paniculate tarweed occur throughout the proposed project region and neither population is unusual. Impacts would be less than significant.

Other special-status plants. Special-status plants listed in Table 3.4-2 that were not detected during surveys have a high to moderate potential to occur in the proposed project area due to the presence of suitable habitat and known occurrences of these species nearby. Special-status plant population size and density fluctuates year to year. While these species were not detected in the work area during planning surveys, they could occur in proposed project work areas or in access roads at the time of construction. Vehicle access, grading, and vegetation removal could directly impact these special-status plants if they occurred in the work area or access roads at the time of construction. Direct impacts on individual federally- or state-endangered plant species and CRPR rank 1B and 2B species would be significant because these species are threatened and have limited populations across the state. MM Biology-1 requires pre-activity surveys for special-status plants and avoidance of special-status plants, where feasible. If special-status plants cannot be avoided, the measure requires salvage and relocation of the plants. The impact would be less than significant with mitigation.

Special-Status Fish

San Mateo Creek and San Onofre Creek provide suitable habitat for Southern California steelhead, arroyo chub, and tidewater goby during periods of surface flow. Construction of the proposed project would not involve any excavation activities or place any structures within San Mateo Creek or San Onofre Creek. Existing access roads that cross both creeks would be used to access proposed project work areas. Flows within the creeks only occur after major rain events, and it would be unsafe for SDG&E contractors to travel through the creeks during high flows when fish species could occur in the area. The proposed project would have no direct impact on

special-status fish species, because SDG&E and their contractors would not travel through the creeks during periods of surface flow. No impact would occur.

Special-Status Amphibians

Arroyo toad was observed in San Mateo Creek and San Onofre Creek during surveys and have been detected near riparian areas during previous MCB CPEN surveys. Coast range newt and western spadefoot toad were not observed during biological surveys but have a moderate potential to occur because of presence of potentially suitable habitat.

The potentially suitable habitat for arroyo toad, coast range newt, and western spadefoot toad located within the proposed project area is summarized in Table 3.4-5. No activities that would result in permanent impacts on riparian habitat are proposed. The temporary loss of riparian habitat from vegetation trimming would not substantially impact arroyo toad or coast range newt due to the limited size of the habitat (refer to Table 3.4-5) that would be temporarily impacted, and the presence of surrounding suitable habitat areas. Temporary impacts on upland habitat would not substantially impact western spade foot toad, because habitat impacts would be limited in extent and dispersed along the 10.24-mile-long proposed project alignment, and would not result in inadequate access to areas of suitable habitat.

Table 3.4-5 Summary of Proposed Project Impacts on Potentially Suitable Habitat for Special-status Amphibian Species

Species	Potentially Suitable Habitat in the Project Area	Impact	
		Temporary (acres)	Permanent (acres)
Arroyo toad	Riparian/wetland	0.05	0.00
	Upland (within 1.2 miles of riparian)	6.03	0.05
Coast range newt	Riparian/wetland	0.05	0.00
Western spadefoot toad	Grassland, riparian/wetland, and scrubland	5.76	0.04

Arroyo toad, coast range newt, and western spadefoot could potentially be injured or killed from vehicle and equipment travel on access roads, burrow destruction from grading of work pads and stringing sites in upland aestivation habitat, or entrapment in excavations. The potential impact from injury or mortality of arroyo toad, coast range newt, and western spadefoot would be significant. APM BIO-04 requires SDG&E to conduct pre-construction surveys for arroyo toad in riparian areas and to implement measures to avoid indirect impacts on arroyo toad breeding habitat by avoiding nighttime construction in suitable habitat areas, except in rare circumstances (i.e., for emergencies and safety purposes). While APM BIO-04 would reduce impacts on arroyo toad located in riparian habitat, it does not specify avoidance or minimization measures for upland aestivation habitat where arroyo toad have been detected or measures to reduce impacts on coast range newt or western spadefoot toad. The impact on arroyo toad, coast range newt, and western spadefoot toad would, therefore, remain significant. MM Biology-2, MM Biology-3, and MM Biology-4 would minimize injury to and mortality of special-status amphibians by requiring reduced vehicle speeds, worker training, pre-

construction surveys, restrictions on night lighting, delineation of sensitive habitats, and inspection of trenches. MM Biology-5 supersedes APM BIO-04, and specifies additional requirements for arroyo toad, including fencing and biological monitoring within estivation habitat to ensure avoidance and minimization of impacts on arroyo toad. Impacts on arroyo toad, coast range newt, and western spadefoot would be less than significant with mitigation.

Special-Status Reptiles

The following special-status reptile species have a high or moderate potential to occur because of the presence of potentially suitable habitat, but were not observed during biological surveys:

- Coast patch-nosed snake
- Coast horned lizard
- Coastal whiptail
- Coronado island skink
- Orange-throated whiptail
- Red-diamond rattlesnake
- San Diego banded gecko
- Two-striped garter snake
- Western pond turtle

Construction would result in direct permanent and temporary loss of suitable habitat for special-status reptiles as shown in Table 3.4-6. Temporary impacts on suitable habitat would not substantially impact any special-status reptile species because the habitat impacts would be limited (refer to Table 3.4-6) and dispersed along the 10.24-mile-long proposed project alignment and would not significantly affect the species. Impacts from habitat loss would be less than significant.

Table 3.4-6 Summary of Proposed Project Impacts on Potentially Suitable Habitat for Special-status Reptile Species

Species	Potentially Suitable Habitat in the Project Area	Impact	
		Temporary (acres)	Permanent (acres)
Coast patch-nosed snake	Scrubland	4.22	0.04
Coast horned lizard	Scrubland	4.22	0.04
Coastal whiptail	Sycamore-alder riparian woodland, scrubland	4.27	0.04
Coronado island skink	Grassland, riparian/wetland, and scrubland	5.76	0.04
Orange-throated whiptail	Riparian/wetland and scrubland	4.27	0.04
Red-diamond rattlesnake	Scrubland	4.22	0.04
San Diego banded gecko	Scrubland	4.22	0.04
Two-striped garter snake	Riparian/wetland and scrubland	4.27	0.04
Western pond turtle	Riparian/wetland	0.05	0.00

Construction of the proposed project could result in direct impacts on special-status reptile species if the species were injured or killed during construction activities, which could result in a significant impact. MM Biology-2, MM Biology-3, and MM Biology-4 would reduce impacts on special-status reptiles by requiring reduced speeds, worker training, pre-construction surveys, biological monitoring for avoidance of special-status reptiles, delineation of sensitive

habitats, and inspection of trenches. Impacts on special-status reptile species would be less than significant with mitigation.

Special-Status Birds

The following special-status bird species were detected in the proposed project vicinity during recent surveys:

- Coastal cactus wren
- Coastal California gnatcatcher
- Cooper's hawk
- Least Bell's vireo
- Loggerhead shrike
- Southern California rufous-crowned sparrow

The following special-status bird species were not observed during biological surveys, but have high and moderate potential to occur in the PSA because of the presence of suitable habitat or past records of the species in the PSA:

- Burrowing owl
- California horned lark
- Southwestern willow flycatcher
- Western yellow-billed cuckoo
- White-tailed kite
- Yellow-breasted chat
- Yellow warbler

Construction of the proposed project could result in direct impacts on special-status bird species if the species were injured or killed during construction activities, including through nest destruction (for all species protected under the Migratory Bird Treaty Act and California Fish and Game Code), nest abandonment, and/or through substantial loss of nesting or foraging habitat. Loss of nesting or foraging habitat would occur primarily during vegetation removal and grading. Table 3.4-7 presents the temporary and permanent impacts on suitable habitats for these species from construction.

The discussion of impacts on special-status birds is divided into four sections:

1. **Least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo**. The impacts on these three species are discussed separately because these species have similar habitat requirements (i.e., riparian habitat) and are considered highly sensitive to noise.
2. **Coastal California gnatcatcher.** This species is considered separately because it forages and nests in coastal sage scrub habitat and it is sensitive to noise.
3. **Burrowing owl.** The impacts on this species are discussed separately because burrowing owl use burrows instead of conventional nests.
4. **All other special-status birds (coastal cactus wren, loggerhead shrike, California horned lark, Cooper's hawk, Southern California rufous-crowned sparrow, white-tailed kite, yellow-breasted chat, and yellow warbler)**. Impacts on these species are discussed collectively because these species have similar nesting seasons and regulatory requirements.

Table 3.4-7 Summary of Proposed Project Impacts on Potentially Suitable Habitat for Special-status Bird Species

Species	Potentially Suitable Habitat in the Project Area	Impact	
		Temporary (acres)	Permanent (acres)
Species that were Present During Recent Surveys			
Coastal cactus wren	Scrubland	4.22	0.04
Coastal California gnatcatcher	Scrubland	4.22	0.04
Cooper's hawk	Riparian/wetland, eucalyptus woodland	0.05	0.00
Least Bell's vireo	Riparian/wetland	0.05	0.00
Loggerhead shrike	Grassland and scrubland	5.71	0.04
Southern California rufous-crowned sparrow	Scrubland	4.22	0.04
Species with Moderate Potential to Occur within the Proposed Project Area			
Burrowing owl	Grassland	1.49	0.003
California horned lark	Grassland and scrubland	5.71	0.04
Southwestern willow flycatcher	Riparian/wetland	0.00 [a]	0.00
Western yellow-billed cuckoo	Riparian/wetland	0.00 [a]	0.00
Yellow warbler	Riparian/wetland	0.05	0.00
Yellow-breasted chat	Riparian/wetland	0.05	0.00
White-tailed kite	Grassland, riparian/wetland, and scrubland	5.71	0.04

Note:

[a] Protocol surveys were conducted for southwestern willow flycatcher and western yellow-billed cuckoo and neither species was documented to have bred within the proposed project area.

Least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Impacts on least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo through potential injury or mortality and nest abandonment or destruction would be significant. Excessive noise could adversely affect the breeding activities of these special-status birds. If construction noise were to exceed the existing baseline noise level for a site at the edge of occupied habitat by more than 3 decibel (dB) hourly average or an hourly average threshold of 60 dB, whichever is higher, the noise could cause nest abandonment or failure, which would be a significant impact. Night lighting could also potentially disrupt breeding activities and result in nest abandonment or failure, which would be a significant impact.

SDG&E would implement APM BIO-05, which requires consultation under Section 7 of the federal ESA for impacts on least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo, as well as implementation of the mitigation that is determined through

consultation. APM BIO-05 does not define the specific measures that would be implemented. Significant impacts could therefore remain even with implementation of these measures. Compliance with USFWS permit conditions could be used to demonstrate compliance with the CPUC mitigation measures if the permit conditions are equal or more effective in mitigating impacts on special-status species.

MM Biology-6 specifies pre-construction requirements, establishment of no-disturbance buffers for bird species, and helicopter use restrictions. MM Biology-6 also includes specific requirements for least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo, including monitoring noisy activities and avoiding activities that exceed the existing baseline noise level for a site by more than 3 dB hourly average or an hourly average threshold of 60 dB during the breeding season. MM Biology-2 restricts night lighting. Impacts on least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo nest success would be less than significant with implementation of MM Biology-2 and MM Biology-6.

Least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo are federally listed species. As shown in Table 3.4-7, the proposed project would result in limited temporary impacts on suitable habitat through vegetation trimming. No permanent impacts on suitable habitat would occur. Therefore, impacts on suitable habitat for least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo would be less than significant.

Coastal California gnatcatcher. Impacts on the coastal California gnatcatcher from potential injury or mortality and nest abandonment or destruction from construction equipment and activity could be significant. Excessive noise could adversely affect the breeding activities of this special-status bird. If construction noise were to exceed the existing baseline noise level for a site at the edge of occupied habitat by more than 3 dB hourly average or an hourly average threshold of 60 dB, whichever is higher, the noise could cause nest abandonment or failure. Nest abandonment or failure would be a significant impact. Night lighting also could potentially result in nest abandonment or failure, which would be a significant impact.

SDG&E would implement APM BIO-02 and APM BIO-05, which require pre-construction surveys, no work buffers, and consultation under Section 7 of the federal ESA for impacts on the species, and implementation of the mitigation that is determined through consultation. APM BIO-02 does not specify the size of the no-disturbance buffer, and APM BIO-05 does not define the specific measures that would be implemented to minimize impacts on coastal California gnatcatcher; therefore, significant impacts could remain even with implementation of these APMs. Compliance with USFWS permit conditions could be used to demonstrate compliance with the CPUC mitigation measures if the permit conditions are equal or more effective in mitigating impacts on special-status species.

MM Biology-6 specifies pre-construction survey requirements, no-disturbance buffers for bird species, and helicopter use restrictions. MM-Biology 7 supersedes APM BIO-02 and further specifies requirements for coastal California gnatcatcher impact avoidance and minimization.

MM Biology-2 includes night lighting restrictions. Impacts on coastal California gnatcatcher nesting success would be less than significant with implementation of MM Biology-2, MM Biology-6, and MM Biology-7.

Loss of suitable habitat for coastal California gnatcatcher would also be a significant impact. As shown in Table 3.4-7, the proposed project would result in temporary and permanent impacts on suitable habitat for coastal California gnatcatcher. The temporary impacts on suitable habitat are of sufficient acreage to result in a potentially significant impact. MM Biology-7 specifies habitat mitigation requirements specific to coastal California gnatcatcher. MM Biology-8 and MM Biology-9 specify requirements for restoration of temporarily disturbed areas and off-site habitat compensation for permanently impacted habitats. Impacts on suitable habitat for coastal California gnatcatcher would be less than significant with mitigation.

Burrowing owl. Significant impacts on burrowing owl could occur from destruction of burrows/burrow entrances, owl mortality, and loss of foraging and wintering habitat. Suitable burrowing owl habitat occurs within the non-native grassland located within the proposed project area. This habitat is considered wintering habitat with limited potential for utilization for spring breeding. Ground-disturbing activities such as grading and vegetation removal could result in the destruction of burrow/burrow entrances and would cause the loss of habitat, resulting in a significant impact. MM Biology-10 requires a pre-construction take avoidance survey, monitoring of burrowing owls during construction, and any necessary mitigation of impacts from the proposed project in accordance with CDFW guidelines (CDFW 2012). If any owls are found in areas that are likely to impacted by project activities, SDG&E will create a Burrowing Owl Monitoring and Mitigation Plan (BOMMP). Direct impacts on burrowing owl would be less than significant with implementation of mitigation.

Other special-status birds (coastal cactus wren, loggerhead shrike, California horned lark, Cooper's hawk, Southern California rufous-crowned sparrow, white-tailed kite, yellow-breasted chat, and yellow-warbler). Construction of the proposed project, including helicopter use, could impact special-status bird species through potential injury, mortality, nest abandonment, or nest destruction; these impacts would be significant. If any construction activities were to occur within 500 feet of a white-tailed kite nest or raptor nests, or 250 feet of passerine birds' nests in open space areas, nest abandonment or failure could potentially occur due to the presence of construction activity. Nest abandonment or failure would be a significant impact. SDG&E would implement APM BIO-01, which requires pre-construction surveys for migratory birds and implementation of a no-work buffer zone if an active nest is found during pre-construction surveys. APM BIO-01 does not include specific distances for the buffer zones that would be implemented, and a significant impact on special-status birds from nest abandonment or failure could still occur if improper buffers were implemented to avoid or minimize noise impacts. MM Biology-6 supersedes APM BIO-01. MM Biology-6 requires SDG&E to conduct pre-construction surveys for nesting birds and includes specific distances for the buffers that would be implemented if an active nest is found (0.25 mile for a white-tailed kite nest; 500 feet for raptors nests; and 250 feet for passerine birds' nests in open space areas). MM Biology-6 also includes helicopter use restrictions in proximity to avian nests and requires

nest monitoring and reporting to ensure that the measure is appropriately implemented. The impacts on special-status nesting birds would be less than significant with mitigation.

Loss of suitable habitat for these special-status birds would be limited in extent (refer to Table 3.4-7) and dispersed over the entire proposed project area. Habitat impacts would occur at each pole work area, which includes a 20-foot radius area around direct bury poles and a 75-foot by 75-foot work area around foundation poles; however, unaffected, abundant suitable foraging and nesting habitat surrounds the proposed project. Bird species can travel to use suitable habitat areas around the proposed project work areas; therefore, the impact on special-status bird species from habitat loss because of the proposed project would be less than significant.

Special-Status Mammals

Occupied habitat for the Pacific pocket mouse is located within the proposed project area, and the Dulzura pocket mouse was identified in the project vicinity during trapping surveys in 2013. The following additional special-status mammal species were not observed during biological surveys but have moderate potential to occur in the PSA because of the presence of suitable habitat:

- American badger
- Northwestern San Diego pocket mouse
- Pallid bat
- Pocketed free-tailed bat
- San Diego black-tailed jackrabbit
- San Diego desert woodrat
- Western mastiff bat

Construction of the proposed project would result in direct impacts on special-status mammal species if the species were injured or killed during construction activities. Injury or mortality would occur primarily during vegetation removal, grading, and potentially from use of access roads. Construction would also result in direct permanent and temporary loss of suitable habitat as shown in Table 3.4-8.

Table 3.4-8 Summary of Proposed Project Impacts on Potentially Suitable Habitat for Special-status Mammal Species

Species	Potentially Suitable Habitat in the Project Area	Impact	
		Temporary (acres)	Permanent (acres)
Species that were Found to be Present During Surveys			
Dulzura pocket mouse	Grassland and scrubland	5.71	0.04
Species with Moderate or High Potential to Occur within the Proposed Project Area			
American badger	Grassland and scrubland	5.71	0.04
Northwestern San Diego pocket mouse	Grassland and scrubland	5.71	0.04
Pacific pocket mouse	Scrubland	0.00 (use of existing access roads only)	0.00

Species	Potentially Suitable Habitat in the Project Area	Impact	
		Temporary (acres)	Permanent (acres)
Pallid bat	Grassland, riparian/wetland, and scrubland	5.76	0.04
Pocketed free-tailed bat	Riparian/wetland (foraging habitat) Roosts in caves, rock crevices in cliff faces, and man-made structures	0.05 (foraging)	0.05 (foraging)
San Diego black-tailed jackrabbit	Grassland and scrubland	5.71	0.04
San Diego desert woodrat	Scrubland	4.22	0.04
Western mastiff bat	Grassland, riparian/wetland, and scrubland (foraging habitat) Roost sites have vertical faces to drop off from and take flight, such as crevices in rock outcroppings and cliff faces, tunnels and tall buildings	5.76 (foraging)	0.04 (foraging)

The discussion of impacts on special-status mammals is divided into three sections:

1. **Pacific pocket mouse.** The impacts on this species is discussed separately because it is federally-listed as endangered.
2. **Special-status mammals other than bats (Dulzura pocket mouse, American badger, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and San Diego desert woodrat).** These species are discussed together because they have similar habitat requirements.
3. **Special-status bats.** The impacts on special-status bats are discussed separately because bats rely on different habitat types and have different life-cycle patterns than other special-status mammal species.

Pacific pocket mouse Pacific pocket mouse is listed as federally endangered species. Pacific pocket mice have been observed near Segments B and F during previous surveys, and habitat near previous detections is assumed to be occupied. SDG&E conducted several surveys for Pacific pocket mouse in the proposed project area in areas of suitable habitat where Pacific pocket mouse had not been recorded previously. No Pacific pocket mice were detected during SDG&E's surveys. It is assumed that Pacific pocket mice only occur in Segments B and F (near previous detections) because on-going surveys have been conducted by SDG&E and MCB CPEN to define the range of this species. Construction of the proposed project would require access to steel lattice towers for installation of conductor in areas along Segment B and pole topping and conductor removal in areas along Segment F that contain occupied habitat for Pacific pocket mouse. Construction vehicles could injure or kill a Pacific pocket mouse if one were to enter an access road, significantly impacting the species. Night lighting may also impact the nocturnal Pacific pocket mouse (e.g., by disrupting foraging behavior and causing increased risk of predation).

SDG&E would implement APM BIO-03, which requires pre-construction surveys for Pacific pocket mouse in suitable habitat and monitoring during construction. SDG&E would also implement APM BIO-05, which requires consultation under Section 7 of the federal ESA for Pacific pocket mouse and implementation of the mitigation that is determined through consultation. APM BIO-03 and APM BIO-05 do not define the specific measures that would be implemented to avoid impacts on this species, and potentially significant impacts on Pacific pocket mouse could occur after implementation of the APMs. Compliance with USFWS permit conditions could be used to demonstrate compliance with the CPUC mitigation measures if the permit conditions are equal or more effective in mitigating impacts on special-status species.

MM Biology-2 requires restrictions on night lighting to reduce impacts on the behavior of these nocturnal species. MM Biology-11 supersedes APM BIO-03. MM Biology-11 requires SDG&E to identify areas that are occupied by Pacific pocket mouse prior to construction; monitor all areas of suitable habitat during construction; and implement measures to avoid impacts on individuals and burrows, including re-routing access and work activities or halting work activities as needed to avoid PPM. With implementation of MM Biology-2 and MM Biology-11, SDG&E would minimize and/or avoid impacts on Pacific pocket mouse. The impacts would be less than significant with mitigation.

The proposed project would avoid temporary and permanent impacts on occupied habitat for Pacific pocket mouse. No impact on Pacific pocket mouse suitable habitat would occur.

Dulzura pocket mouse, American badger, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and San Diego desert woodrat. Construction of the proposed project would require grading and earthwork in areas containing suitable habitat for Dulzura pocket mouse, American badger, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and San Diego desert woodrat. Injury or mortality of one or more individuals of these special-status mammal species would be a significant impact because they are all State Species of Special Concern and rare in the region. Because no focused surveys were performed for these species, they are assumed to be potentially present. It is therefore also assumed that construction of the proposed project could result in injury or mortality of one or more individuals of these species, which would be a significant impact. MM Biology-2, MM Biology-3, and MM Biology-4 would reduce impacts on special-status mammals by requiring reduced speeds, worker training, pre-construction surveys, delineation of sensitive habitats, and inspection of trenches. With implementation of these mitigation measures, impacts on Dulzura pocket mouse, American badger, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and San Diego desert woodrat would be less than significant.

The loss of suitable habitat for special-status mammals would be dispersed over the entire proposed project alignment. Habitat impacts would occur at each pole work area; however, abundant unimpacted suitable foraging and breeding habitat surrounds the proposed project work areas. These mammal species would be able to use these suitable habitat areas around the proposed project work areas. Therefore, the impact on special-status mammals from habitat loss from the proposed project would be less than significant.

Special-status bats. Construction of the proposed project would require grading and earthwork in areas containing suitable foraging habitat for pocketed free-tailed bat and western mastiff bat. No potential roost sites for these species are in the proposed project area. Impacts on suitable foraging habitat for these species could occur at individual pole work areas and would be dispersed over the entire proposed project area. Abundant suitable habitat areas around the proposed project would still be available for use by these species; therefore, the impact on these special-status bats from loss of foraging habitat from the proposed project would be less than significant.

Indirect Impacts

Special-status plant and wildlife species may be impacted by the introduction and/or spread of invasive non-native plant species from construction activities, use of vehicles and equipment exposed to weed seed, or the introduction of weed seed during restoration. Invasive species can out-compete the special-status, native species and result in future loss of native species range. Invasive species can also result in loss of suitable habitat areas for special-status wildlife. MM Biology-12 requires invasive weed control and monitoring to reduce the introduction and spread of invasive weeds. MM Biology-14 further requires power washing of equipment used for access road grading to reduce the introduction of weed seed. The impact on special-status species populations from introduction of invasive weeds would be less than significant with mitigation.

Impacts from sedimentation, erosion, and dust could substantially damage the viability of a nearby special-status plant population and affect special-status wildlife species. Dust, erosion, and sedimentation during construction could indirectly impact special-status species. Dust can adversely affect photosynthesis, resulting in reduced plant vitality. Erosion can expose plant roots or remove plants, resulting in plant damage or mortality. Erosion can also result in burrow destruction and impact suitable habitat areas for special-status fairy shrimp, fish, and amphibians. Sedimentation can bury small plants and seedlings. These impacts would be minimized through implementation of BMPs specified in the SWPPP, which would be prepared consistent with the NPDES Construction General Permit (CAS2012-0006-DWQ). The impact from dust, erosion, and sedimentation on special-status species would be less than significant.

Construction of the proposed project could start a wildfire if a construction vehicle were to spark and ignite nearby vegetation or as a result of worker smoking. If a wildfire were to occur, it would impact special-status species populations occurring in the area. The proposed project includes implementation of a Fire Prevention Plan (Appendix E). The Fire Prevention Plan includes specific precautions to minimize the risk of wildfire ignition and contain a wildfire. Through implementation of the proposed fire risk minimization measures, the potential impacts of wildfire on special-status species resulting from project construction would be less than significant.

Operation and Maintenance

Operation and maintenance of the proposed project would involve the same activities at approximately the same frequency as operation and maintenance of the existing power lines

(TL 695 and TL 6971). The presence of the new conductor and poles would not result in any new or increased risk to special-status species. Routine access road grading to access the power lines could impacts special-status species if appropriate protocols for access road grading were not followed during operation and maintenance. MM Biology-14 specifies biological resource requirements for access road grading including pre-construction surveys for special-status species and buffers for nesting birds. The impact from operation and maintenance would be less than significant with mitigation. SDG&E compliance with a future access road agreement from MCB CPEN could satisfy the requirements of MM Biology-14 if the agreement conditions are equal or more effective in mitigating impacts on special-status species.

Mitigation Measures: MM Biology-1, MM Biology-2, MM Biology-3, MM Biology-4, MM Biology-5, MM Biology-6, MM Biology-7, MM Biology-8, MM Biology-9, MM Biology-10, MM Biology-11, MM Biology-12, and MM Biology-14

b) Would the proposed 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 CDFW or USFWS?	**Significance Determination**
	Less than significant with mitigation

Direct Impacts

The proposed project area includes riparian areas and other sensitive communities, including nonnative grassland, Diegan coastal sage scrub, MCB CPEN habitat restoration and mitigation areas, and potential ESHA within the California Coastal Zone. Construction and operation of the proposed project would result in temporary and permanent impacts on riparian areas and sensitive vegetation communities, including MCB CPEN restoration and mitigation sites. The following activities would occur within sensitive vegetation communities:

- Access to work areas
- Vegetation removal within work areas including pole sites, underground work areas, stringing sites, and guard structure locations
- Grading of work areas
- Trenching in underground power line segment
- Power pole installation
- Power pole and conductor removal
- Pole topping
- Conductor stringing
- Guard structure installation and removal

Temporary impacts on riparian areas would occur from vegetation trimming along a footpath to one work area. No permanent impacts on riparian vegetation would occur because of the project. Temporary impacts on other sensitive natural communities would occur from work area access, site preparation, stringing, guard structure installation, pole installation, and pole and conductor removal. No sensitive vegetation communities are located within staging yards or helicopter ILAs. Temporary impacts on restoration and mitigation areas could occur at proposed project pole structure work areas, access roads, and a helicopter ILA. No permanent

impacts on MCB CPEN restoration and mitigation areas would occur. The area of temporary and permanent impacts within riparian areas and natural communities, including natural communities within the California Coastal Zone (potential ESHA), are provided in Table 3.4-9.

The temporary loss of riparian and sensitive vegetation communities and impacts on habitat restoration or mitigation sites during construction would be a significant impact if these areas were not adequately restored to pre-project conditions to avoid permanent loss of the vegetation and habitat. MM Biology-8 requires restoration and monitoring of temporary impact areas including habitat restoration and mitigation sites with remedial measures if the area is not meeting success criteria during the monitoring period. The measure also requires remedial measures and continued monitoring if the area fails to meet restoration success criteria by the end of the monitoring period. Impacts would be less than significant with implementation of MM Biology-8.

Permanent impacts on sensitive vegetation communities would occur over the life of the project due to the presence of new steel poles, permanent pads, and regulatory requirements to maintain a 10-foot radius area around each pole free of vegetation. The permanent loss of sensitive vegetation communities and potential ESHA would also be a significant impact. MM Biology-9 requires compensation for permanent impacts on sensitive vegetation communities with comparable or higher quality habitat. The impact on sensitive vegetation communities would be less than significant with mitigation. In addition, SDG&E is required to

Table 3.4-9 Temporary and Permanent Impacts on Vegetation Communities

Vegetation Community	Type	Total Impact Area (acres)	Impacts within Coastal Zone (acres)
Temporary Impacts			
Nonnative Grassland	Sensitive Natural Community	1.49	0.00
Diegan Coastal Sage Scrub	Sensitive Natural Community	4.22	1.40
Southern Sycamore Alder Riparian Woodland	Sensitive Natural Community/Riparian Habitat	0.05	0.05
	TOTAL	**5.76**	**1.45**
Permanent Impacts			
Nonnative Grassland	Sensitive Natural Community	0.003	0.00
Diegan Coastal Sage Scrub	Sensitive Natural Community	0.04	0.02
Southern Sycamore Alder Riparian Woodland	Sensitive Natural Community/Riparian Habitat	0.00	0.00
	TOTAL	**0.04**	**0.02**

coordinate with the CCC to obtain approval for all impacts within the California Coastal Zone. SDG&E is required to comply with the conditions of any permit required from the CCC.

Indirect Impacts

Construction of the proposed project could result in introduction of invasive weed seed, erosion, dust, sedimentation, and increased risk of wildfire, which could result in the loss or degradation of riparian and sensitive vegetation communities. The impacts from erosion, dust, and sedimentation would be reduced to less than significant through implementation of a project-specific SWPPP, which would be required in accordance with the NPDES Construction General Permit. Impacts from potentially increased wildfire risk would be less than significant through adherence to the measures contained in the project-specific Fire Prevention Plan (refer to Appendix E).

Indirect impacts from invasive weed introduction could result in significant habitat degradation if weed introduction were not controlled. MM Biology-12 specifies measures for weed control to reduce the introduction and spread of invasive weeds. The impact on sensitive vegetation communities from introduction of invasive weeds would be less than significant with mitigation.

Mitigation Measures: MM Biology-8, MM Biology-9, and MM Biology-12

c) Would the proposed 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?	**Significance Determination**
	Less than significant with mitigation

Construction

No project structures or pole work areas would be located within wetlands or jurisdictional wetlands or waters. Construction would involve the use of existing access roads that cross waters (e.g., San Onofre Creek) and potential vernal pools, which are protected under Section 404 of the Clean Water Act (CWA). Impacts on these waters from access road improvements or vehicle travel during wet conditions could significantly affect vernal pools and water resources. MM Biology-13 specifies measures for vehicle access in access roads containing vernal pools including placing mats over pools to avoid impacts from vehicle traffic. MM Biology-13 and MM Biology-14 require a biological monitor to flag vernal pools for avoidance during grading. MM Biology-14 specifies that no fill will be placed in any wetland or water of the US without a permit. MM Biology-14 also requires implementation of the operational protocols in SDG&E's Subregional NCCP, which prohibits access road grading within 25 feet of any drainages or waterways. The impact on water resources including vernal pools would be less than significant with mitigation.

Operation and Maintenance

Operation and maintenance of the proposed project would involve the same activities at approximately the same frequency as operation and maintenance of the existing power lines (TL 695 and TL 6971). The new conductor and power poles would not result in any new impacts or risk of impact on federally protected wetlands or other water resources. SDG&E would continue to conduct access road grading and maintenance to access to the proposed project

infrastructure. Impacts on water resources including vernal pools from access road grading during operation and maintenance could be significant. MM Biology-14 specifies requirements to avoid grading of vernal pools and waters of the U.S. The impact on waters during future access road grading would be less than significant with mitigation. SDG&E compliance with a future access road agreement from MCB CPEN could satisfy the requirements of MM Biology-14 if the agreement conditions are equal or more effective in mitigating impacts on special-status species.

Mitigation Measures: MM Biology-13 and MM Biology-14

d) Would the proposed 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?	**Significance Determination**
	Less than significant with mitigation

Construction

Movement of Native or Resident Fish or Wildlife Species

Construction of the proposed project would not substantially impact the movement of any native or migratory fish or wildlife species. The proposed pole locations would be separated by several hundred feet, and species could move freely between the poles during construction. No work areas or poles would be located within creeks or streams. Construction vehicles would not cross through within creeks when water is flowing; therefore, construction activities would not block fish passage. Impacts on resident and migratory wildlife species movement would be less than significant.

Native Wildlife Nursery Sites

MCB CPEN is home to populations of least Bell's vireo, coastal California gnatcatcher, southwestern willow flycatcher, western yellow-billed cuckoo, Pacific pocket mouse, and arroyo toad. Sensitive habitats within MCB CPEN can be considered native wildlife nursery sites because (1) special-status species populations breed and nest within the military base, and (2) these populations are unique within the region. Impacts on the suitable habitats of these species could impede the use of native wildlife nursery sites and would be significant.

MM Biology-2 would minimize impacts on species' breeding by placing restrictions on night lighting. MM Biology-5 would minimize impacts on arroyo toad through implementation of protective measures, monitoring requirements, and reporting requirements. MM Biology-6 and MM Biology-7 would minimize impacts on least Bell's vireo, coastal California gnatcatcher, southwestern willow flycatcher, and western yellow-billed cuckoo breeding by requiring pre-construction survey requirements, no-disturbance buffers, avoiding noisy activities during the breeding season to the maximum extent feasible, monitoring noisy activities, and restrictions on helicopter use during the breeding season. MM Biology-11 requires SDG&E to identify areas that are occupied by Pacific pocket mouse prior to construction; monitor within all areas of suitable habitat during construction; and implement measures to avoid impacts on burrows, including re-routing access to avoid habitat and placing dirt piles or sediment to avoid occupied

burrows. MM Biology-14 would apply to access road grading activities and would require SDG&E to monitor for special-status species and avoid impacts to individuals and their habitat. Impacts on native wildlife nursery sites would be less than significant with mitigation.

Migratory Birds

Construction of the proposed project would involve the use of equipment and helicopters, which create general environmental disturbance, including noise. If any construction activities were to occur within 0.25 mile of a white-tailed kite nest, 500 feet from other raptors nests, 250 feet from common passerine birds' nests in open space areas, or 150 feet from common (non-special-status) passerine birds' nests, the construction activity could result in nest abandonment, which would be a significant impact. MM Biology-6 requires SDG&E to conduct pre-construction surveys for nesting birds, including migratory birds, and includes specific distances for the buffers that shall be implemented if an active nest is found (0.25 mile for a white-tailed kite, 500 feet for other raptors, 250 feet for passerine birds' nests in open space areas, and 150 feet for passerine birds). MM Biology-6 also includes restrictions on helicopter use as well as nest monitoring and reporting to ensure that the measure is appropriately implemented. Access road grading may occur during nesting season. MM Biology-14 requires SDG&E to perform nesting surveys and ensure that impacts to migratory birds and their nesting sites do not occur. The impacts on migratory birds would be less than significant with mitigation.

Operation and Maintenance

The power lines would span all waterways where fish could be present and would not block fish movement. The power lines would replace existing lines and would be located within existing transmission corridors adjacent to existing power and transmission lines. The new power lines could result in an increase in migratory bird collisions if the power lines were not constructed in accordance with *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (Avian Power Line Interaction Committee 2012). The impact on migratory birds could be significant. MM Biology-6 requires that the use of collision reducing techniques based on Avian Power Line Interaction Committee guidelines. The impact on migratory birds would be less than significant with mitigation.

Mitigation Measures: MM Biology-2, MM Biology-5, MM Biology-6, MM Biology-7, MM Biology-11, and MM Biology-14

e) Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**Significance Determination**
	Less than significant with mitigation

Construction

The City of San Clemente has adopted an ordinance for the maintenance and preservation of City-owned trees. The proposed project would not require removal or relocation of any City-owned trees. No impact would occur.

The proposed project would be located primarily within MCB CPEN. MCB CPEN has developed an INRMP for the protection of biological resources on the military base. The INRMP includes a range of management actions to reduce impacts on special-status species. The INRMP applies to MCB CPEN activities and does not apply to the proposed project; therefore, policies in the INRMP would not directly apply to proposed project construction. To comply with the INRMP, MCB CPEN has mapped restoration areas across the base; construction of the proposed project would include the use of staging yards/helicopter ILAs and stringing sites (i.e., temporary impact areas) that would impact a few of these restoration areas. Construction activities within restoration areas could damage vegetation and conflict with MCB CPEN restoration actions under the INRMP, which would be a significant impact. MM Biology-8 requires SDG&E to restore temporarily impacted habitat within designated restoration areas to meet MCB CPEN restoration specifications. The potential conflict with the INRMP would be less than significant with mitigation.

Operation and Maintenance

The proposed project would be located entirely within existing transmission corridors or buried underground. The reconductored power lines would not conflict with MCB CPEN implementation of the INRMP because the pole structures would not be located in areas that are targeted for conservation actions or other activities in the INRMP. Maintenance activities for the reconductored power lines would be the same as the existing power lines and would not change the activity level in the transmission corridors. The proposed project would not conflict with the policies in the INRMP. No impact would occur.

Mitigation Measures: MM Biology-8

f) Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	**Significance Determination**
	Less than significant with mitigation

SDG&E's Subregional NCCP would not be used to obtain take coverage for the proposed project's impacts on listed species. SDG&E would seek separate take coverage as needed for federally- and state-listed species. MCB CPEN would be the federal lead in Section 7 consultation with the USFWS. While SDG&E's Subregional NCCP would not apply to the proposed project, SDG&E has proposed use of the protocols contained in the NCCP. The mitigation measures prescribed in this section to reduce significant impacts on biological resources are consistent with the requirements of SDG&E's Subregional NCCP, including the operational protocols. No conflict with SDG&E's Subregional NCCP would occur.

MCB CPEN has adopted a Riparian Ecosystem Conservation Plan. The Riparian Ecosystem Conservation Plan applies to MCB CPEN activities and does not directly apply to the proposed project. The proposed project construction would involve vegetation trimming within riparian habitat to develop a footpath. No permanent impacts on riparian habitat would occur. The temporary impact from vegetation trimming could conflict with MCB CPEN implementation of

the Riparian Ecosystem Conservation Plan if the riparian habitat was not properly restored. MM Biology-8 requires mitigation for impacts within riparian habitat that is consistent with the Riparian Ecosystem Conservation Plan. Conflicts with the Riparian Ecosystem Conservation Plan would be less than significant with mitigation.

MCB CPEN is in the process of preparing a conservation plan for Pacific pocket mouse. The draft Biological Opinion for Pacific pocket mouse was provided to the CPUC. The proposed project could conflict with the conservation plan if adequate mitigation for Pacific pocket mouse was not applied and the project resulted in declines in species populations. MM Biology-11 requires mitigation for Pacific pocket mouse to avoid declines in species populations. The mitigation in MM Biology-11 is consistent with the mitigation included in the draft MCB CPEN Biological Opinion for Pacific pocket mouse. The potential conflict with the conservation plan would be less than significant with mitigation.

Mitigation Measures: MM Biology-8 and MM Biology-11

3.4.6 Mitigation Measures

MM Biology-1: Avoidance and Minimization of Impacts on Special-Status Plants
Populations of thread-leaved brodiaea shall be avoided during construction. SDG&E shall mark all thread-leaved brodiaea populations within the PSA as environmentally sensitive areas on maps that are provided to construction contractors working near environmentally sensitive areas. All populations of thread-leaved brodiaea within 50 feet of a project work area and 20 feet of an access road shall be staked and flagged or fenced for avoidance by a qualified biologist or botanist prior to construction. The project work areas shall be adjusted as needed to avoid any populations of thread-leaved brodiaea that occur within the work area. All stakes and flagging shall be removed no later than 30 days after construction is complete in the area. Information about thread-leaved brodiaea and avoidance requirements shall be included in the worker training (refer to MM Biology-3). SDG&E shall obtain MCB CPEN approval of a qualified botanist prior to construction start. A qualified botanist shall conduct pre-activity studies during the appropriate blooming season for activities occurring off existing access roads in natural areas. The pre-activity surveys shall include surveys for special-status plants with a CRPR rank of 1A, 1B, 2A, or 2B that have the potential to occur in the area. SDG&E shall maintain a library of rare plant locations known to SDG&E occurring within the easements and fee owned properties. "Known" means a verified population either extant or documented using record data. Information on known sites may come from a variety of record data sources including Habitat Conservation Plans, pre-activity surveys, MCB CPEN surveys, or surveys conducted for environmental compliance. Plant inventories shall be consulted as part of the pre-activity survey procedure. Special-status plant populations documented in pre-activity surveys will be flagged for avoidance, wherever feasible. If the plant species cannot be avoided, SDG&E shall notify USFWS, CDFW, MCB CPEN, and the CPUC in writing, and SDG&E shall implement procedures for salvage and relocation of the plant species. No listed plant species shall be salvaged or relocated without obtaining permit authorization from CDFW and/or USFWS, as appropriate. SDG&E shall relocate the species to areas within the easement that are outside of the long-term maintenance areas. If the species occurs in an area that is subject to temporary impacts, the species shall be included in the restoration of the site (see MM Biology-8).
Applicable Locations: All thread-leaved brodiaea populations within 50 feet of a work area and 20 feet of an access road, and anywhere activities will occur off existing access roads in natural areas for other special-status plants.
Performance Standards and Timing: **Before Construction:**

(1) Thread-leaved brodiaea populations are marked on maps.
(2) Thread-leaved brodiaea and other special-status plant populations are staked and flagged
(3) Pre-activity studies are conducted by a qualified biologist during the appropriate blooming season

During Construction:
(1) Thread-leaved brodiaea populations are avoided
(2) Other special-status plants are avoided, as feasible
(3) Plants are salvaged or relocated where permanent impacts are unavoidable. No listed plant species shall be relocated without obtaining appropriate permit authorization from CDFW and/or USFWS, as appropriate.

After Construction:

All stakes and flagging are removed no later than 30 days after construction is complete

MM Biology-2: Worker Behavior Protocols

All field personnel shall abide by the following general behavior requirements:

1. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb.
2. Firearms shall be prohibited except for those used by security personnel.
3. Feeding of wildlife shall not be allowed.
4. SDG&E personnel shall not bring pets to work areas in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive domestic animal diseases to native wildlife populations.
5. Parking or driving underneath oak trees shall not be allowed in order to protect root structures except in previously designated traffic areas.
6. Plant or wildlife species shall not be collected under any circumstance, unless by an authorized/permitted biologist and in compliance with any required permits or take authorization.
7. Littering shall not be allowed. SDG&E shall not deposit or leave any food or waste in any work area.
8. Wildfires shall be prevented or minimized by exercising care when driving and by not parking vehicles where catalytic converters can ignite dry vegetation. In times of high fire hazard, trucks shall carry water and shovels, or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention methods shall be used during grinding and welding to prevent or minimize the potential for fire. Care shall be exhibited when smoking in permitted areas.
9. Field crews shall refer environmental issues, including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impacts, to a biologist(s) approved by the CPUC, USFWS, and CDFW. Other CPUC-, USFWS-, or CDFW-biologists or experts in wildlife handling may need to be brought in for assistance with wildlife relocations.
10. Night lighting shall be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from habitat to the maximum extent practicable.
11. Vehicle speeds shall be maintained at 15 mph or less.

Applicable Locations: All project work areas

Performance Standards and Timing:

Before Construction: N/A

During Construction: Workers comply with the specified protocols

After Construction: N/A

MM Biology-3: Worker Training

All construction personnel must receive environmental training from the project biologist or other qualified personnel before commencing work. The training shall describe special-status plant and wildlife species and sensitive habitats that could occur within project work areas, protection afforded to these species and habitats, and avoidance and minimization measures required to avoid and/or minimize impacts from the project. Training shall describe the requirements and boundaries of the project and the importance of complying with mitigation measures within the IS/MND and Biological Opinion. Penalties for violations of environmental laws shall also be incorporated into the training session. Each crewmember shall be provided with an informational training handout and a decal to indicate that he/she has attended the training. The handout shall include information and legal consequences regarding the potential effects of trash, trespassing, harassing, or harming designated sensitive habitat areas and species within or outside of the project footprint. The roles and responsibilities of CPUC-, USFWS-, and CDFW-approved biologist(s) and other environmental representatives shall be identified in the Mitigation Monitoring, Compliance, and Reporting Program and discussed during the training.

A copy of the training and training materials shall be provided to the CPUC for review and approval at least 30 days prior to the start of construction. Training logs and sign-in sheets shall be provided to the CPUC on a monthly basis. As needed, in-field training shall be provided to new on-site construction personnel by the environmental compliance supervisor or a qualified individual who shall be identified by a CPUC- and MCB CPEN-approved biologist, or initial training shall be recorded and replayed for new personnel.

Applicable Locations: All project work areas

Performance Standards and Timing:

Before Construction:

(1) Training and training materials are provided to the CPUC

(2) All workers are trained prior to working on the site

During Construction:

(1) Evidence of environmental training is present at the work site

(2) Training logs and sign-in sheets are provided to the CPUC monthly

After Construction: N/A

MM Biology-4: Pre-Construction Surveys and Biological Monitoring

SDG&E shall follow all operation and maintenance protocols included in Chapter 7.1 of SDG&E's Subregional NCCP including:

- Pre-activity surveys
- Delineate sensitive habitat areas in the field
- Biological monitoring
- Inspect supplies and equipment for wildlife
- Inspect steep walled trenches for wildlife

Applicable Locations: All project disturbance areas

Performance Standards and Timing:

Before Construction:

Operational protocols are implemented

During Construction:

Operational protocols are implemented

After Construction:

Qualified biologist removes habitat flagging

MM Biology-5: Arroyo Toad Avoidance and Minimization

Avoidance and minimization measures shall be taken within suitable habitat of the federally endangered arroyo toad, dependent on the season. Arroyo toad movement to and from breeding areas is often tied to rainfall and high humidity, particularly outside of the breeding season; movement to breeding sites typically begins in February or March and goes through July (MCB CPEN 2012).

For work occurring within suitable arroyo toad habitat, including upland aestivation habitat, the following provisions shall be implemented:

1. Temporary silt fencing shall be installed around the perimeter of Talega staging yard 1, Sierra helo ILA, and any work areas required by USFWS, with a qualified biologist present. Silt fencing shall be required year-round in these areas during construction.
2. Silt fencing shall be installed at least 14 days prior to construction to allow enough time for arroyo toad surveys to be completed during optimal weather conditions.
3. All fencing material (e.g., mesh stakes) shall be removed following construction.
4. Before construction activities, but after exclusionary fencing has been installed, a minimum of three surveys occurring over consecutive days shall be conducted for arroyo toads within fenced areas by a qualified biologist. These surveys shall be conducted during appropriate climatic conditions and during the appropriate hours (i.e., evenings, nights, and mornings) to maximize the likelihood of encountering arroyo toads. If climatic conditions are not highly suitable for arroyo toad activity, arroyo toad habitat in the project footprint may be watered to encourage aestivating arroyo toads to surface. All arroyo toads found within the project area shall be captured and translocated by a qualified biologist to the nearest suitable riparian habitat. (However, see number 9, below, regarding actions which may result in "take" and requirements for a valid take permit.) Upon completion of these surveys and prior to initiation of construction activities, the qualified biologist shall report the capture and release locations of all arroyo toads found and relocated during these initial surveys to MCB CPEN Assistant Chief of Staff (AC/S) Environmental Security (ES), the CPUC, and USFWS.
5. If fencing requires repair during construction, a minimum of one survey to a maximum of three surveys for arroyo toads shall be conducted within the area requiring repair by the qualified biologist, consistent with the requirements and methodology described in condition #2 above. The determination of the length of these surveys shall be determined by the qualified biologist. Upon completion of these surveys and prior to initiation of construction activities, the qualified biologist shall report the capture and release locations of all arroyo toads found and relocated during these initial surveys to MCB CPEN AC/S ES, the CPUC, and USFWS.
6. Access to project work areas shall be via preexisting access routes to the greatest extent possible. Project-related vehicle travel shall be limited to daylight hours as arroyo toads use roadways primarily during nighttime hours.
7. Ingress and egress of construction equipment and personnel shall be kept to a minimum, but when necessary, equipment and personnel shall use a single access point to the site. Where movement of arroyo toads into the construction area is a concern, a road grate shall be installed at the single access point to prevent movement of arroyo toads into the area. Information on grate installation that prevents arroyo toad movement into the area but does not trap arroyo toads can be obtained from MCB CPEN AC/S ES.
8. Dirt/sand piles left overnight shall be covered with tarps or plastic with the edges sealed with sandbags, bricks, or boards to prevent toads from burrowing into the dirt. Holes or trenches shall be covered with material such as plywood or solid metal grates with the edges sealed with sandbags, bricks, or boards to prevent toads from falling into holes or trenches.
9. During construction, the qualified biologist shall be present each morning before initial ground disturbance activities to (1) inspect potential arroyo toad habitat, (2) inspect road grates, and (3) monitor removal of excavation and trench covers and soil stockpile tarps to check the integrity of the toad fence and for any toads that may have entered fenced areas.

10. During construction, the qualified biologist shall be present at the end of the day to ensure that excavations and trenches are properly covered to prevent toads from entering any open pits and to check the integrity of the toad fence.
11. The qualified biologist shall be on-call and available as needed at other times if a toad is encountered during construction activities. The qualified biologist shall be present on-site full time for two to three days following any measurable rainfall event (i.e., 0.5 inch or greater) or other appropriate climatic conditions (e.g. high relative humidity and moderate temperatures) that are likely to elicit above-ground arroyo toad movement. The qualified biologist shall contact MCB CPEN AC/S ES, the CPUC, and USFWS regarding any arroyo toad sighting within the project footprint. Any incidental excavation, capture and relocation, injury, or death of arroyo toads in association with project activities shall be reported immediately to MCB CPEN AC/S ES, the CPUC, and USFWS. Upon notification of a toad sighting, the qualified biologist shall notify the USFWS and report the notification to MCB CPEN AC/S ES, and the CPUC. Any type of "take" of toads, which includes digging up, handling (i.e., relocating the toad), injury, or death shall not occur without a valid "take" permit.
12. Activities that attract small insects (e.g., ants) and toad predators shall be minimized by keeping the project site as clean as possible. All food-related trash shall be placed in sealed bins or removed from the site regularly

Applicable Locations: Within suitable habitat for arroyo toad

Performance Standards and Timing:

Before Construction:

(1) Temporary silt fencing is installed around work areas in suitable habitat

(2) Pre-activity surveys are conducted within fencing, and toads are relocated if found

During Construction:

(1) Monitoring is conducted by a qualified biologist

(2) Road grates are installed where necessary

(3) dirt/sand piles, excavations, and trenches are covered

(4) Take is reported

After Construction:

Temporary silt fencing is removed

MM Biology-6: Mitigation for Bird Species

This measure applies to all work areas in which any construction-related activities must be conducted during the nesting bird season (generally between January 1 and August 31, but may be earlier or later depending on species, location, and weather conditions).

Nesting Bird Survey Requirements. If work is scheduled to occur during the avian nesting season, nesting bird surveys shall be conducted per the following provisions:

- Nest surveys shall occur within 3 days prior to the start of ground-disturbing construction or vegetation trimming or removal activities. If there is no work in an area for 7 days, it shall be considered a new work area if construction, vegetation trimming, or vegetation removal begins again.
- Surveys shall be conducted with sufficient survey duration and intensity of effort necessary for the identification of active nests, which is defined as once birds begin constructing, preparing, or using a nest for egg-laying (as defined in Fish and Game Code Section 681.2b). A nest is no longer an "active nest" if abandoned by the adult birds or once fledglings are no longer dependent on the nest. Surveys shall include nests of protected species within proposed work areas, vegetation identified for removal and/or pruning, and within the following buffers of active work areas: 0.25-mile buffer for white-tailed kite (excluding active training areas); 500-foot buffer for other raptor species; and 250 feet for passerine species.

- Surveys shall be conducted during locally appropriate dates for nesting seasons determined in consultation with the USFWS and CDFW; note that generally the season is between January 1 and August 31 but may be earlier or later depending on species, location, and weather conditions. Species-specific nesting seasons for some species are identified below.
- The surveys shall be conducted by a CPUC- and MCB CPEN-approved avian biologist.
- Survey results shall be provided to CPUC, MCB CPEN, USFWS, and CDFW prior to initiating construction activities.
- Work areas within which vegetation will not be removed and/or pruned and significant noise is not generated, such as work performed manually, by hand or on foot, and/or that would not cause significant disturbances to nesting birds (e.g., operating switches, driving on access roads, normally occurring activities at substations, and activities at staging and laydown areas) do not need to be surveyed prior to use. None of these activities shall result in physical contact with a nest.
- Avoid Impacts on Nesting Birds. During the nesting season (generally between January 1 and August 31) raptor nests that are located within a 500-foot buffer from a work location where a helicopter will be used shall be evaluated by a CPUC- and MCB CPEN-approved avian biologist to determine whether the nest is active. No trees with active raptor nests shall be removed during nesting season.
- No additional measures, with the exception of helicopter use shall be implemented if active nests are more than the following distances from the nearest work areas: (a) 500 feet for white-tailed kite (excluding active training areas), (b) 250 feet for other bird and raptor species. Buffers shall not apply to construction-related traffic using existing roads where the use of such roads is not limited to project-specific use (i.e., county roads, highways, farm roads, or other private roads). Where road use is limited to project-specific use, a buffer reduction or approval to drive through a buffer shall be obtained as described below under "Buffer Reduction."
- As appropriate, exclusion techniques may be used for any construction equipment that is left unattended for more than 24 hours to reduce the possibility of birds nesting in the construction equipment. An example of an exclusion technique is covering equipment with tarps.
- Buffer Reduction. The specified buffers from nesting birds may be reduced on a case-by-case basis if, based on compelling biological or ecological reasoning (e.g., the biology of the bird species, concealment of the nest site by topography, land use type, vegetation, level of project activity, and level of pre-existing disturbance on site), it is determined by a CPUC- and MCB CPEN-approved avian biologist that implementation of a specified smaller buffer distance will still avoid nest abandonment and failure. This requirement includes buffer reductions or temporary buffer incursions for project-related use of roads where no stopping, standing, or other work activities shall occur in the buffer. Requests to reduce standard buffers or for temporary buffer incursions must be submitted to CPUC's independent biologist via e-mail for review. Requests to reduce buffers must include:
  - Species
  - Location
  - Pre-existing conditions present on site
  - Description of the work to be conducted within the reduced buffer (including helicopter use)
  - Size and expected duration of proposed buffer reduction
  - Reason for the buffer reduction
  - Name and contact information of the CPUC-, USFWS-, and CDFW-approved qualified biologist(s) who requested the buffer reduction and will conduct subsequent monitoring
  - Proposed frequency and methods of monitoring necessary for the nest given the type of bird and surrounding conditions

The CPUC's independent biologist shall respond to SDG&E's request for a buffer reduction (and buffer reduction terms) within one business day. If SDG&E proceeds with a reduced buffer, nests shall be monitored daily during construction activities. If the buffer reduction request is denied, or if the avian biologist determines that the nesting bird(s) are not tolerant of project activity, the specified buffer(s) listed above in this measure shall be implemented.

Non-special-status species found building nests within the work areas after specific project activities begin may be tolerant of that specific project activity; however, the CPUC- and MCB CPEN-approved avian biologist shall implement an appropriate buffer or other appropriate measures to protect the nest after taking into consideration the position of the nest, the bird species nesting on site, the type of work

to be conducted, and duration of the construction disturbance. In these cases, the proposed buffer or other measures must be approved by CPUC's independent biologist through the buffer reduction process outlined in this measure, if buffers are less than those specified in this measure. These nests shall be monitored daily and only during construction activities (no monitoring required during periods when no work is conducted) by an avian biologist until the avian biologist has determined that the young have fledged or construction ends within the work area (whichever occurs first). If the avian biologist determines that the nesting bird(s) are not tolerant of project activity, the buffer outlined above in this measure shall be implemented.

Helicopter Activities During Nesting Season. Consistent with air and ground safety requirements, the following helicopter use restrictions shall apply during the bird nesting season:

- No take-offs, flights, or landings shall occur within a specified nest buffer without receiving a buffer reduction that includes consideration of the specific type of helicopter to be used (e.g., light-duty).
- All helicopters shall maintain an elevation of 120 feet or higher above ground level at all times when within 300 horizontal feet of a nest.
- A minimum 100-foot long line shall be used for transporting structures, concrete, reinforced steel cages, and for transporting or removing other equipment or personnel.
- Hover time at each structure shall be limited to no more than 5 minutes whenever possible.
- Helicopters shall leave sites the same way that they approached.
- Helicopter use shall be monitored daily by a qualified biologist(s) from start to finish.
- Where possible, the nest shall be photographed before and after the construction activities.

If the qualified biologist(s) determine that the birds are being adversely affected by the activities at any time, the qualified biologist shall call a temporary halt to the work and continue to monitor the birds. If the birds continue to be negatively affected during the work stoppage or when the work is restarted, the qualified biologist shall increase the buffer as much as necessary to alleviate the negative reaction of the birds.

- The nest shall be checked, and the status of the nest and the nesting birds shall be ascertained the day after helicopter construction concludes.
- Detailed observations of the birds' behaviors before, during, and after the helicopter activities shall be included in monthly monitoring reports, including but not limited to any damage to or loss of the nest, any injury or mortality to the nesting birds, or the abandonment of the nest. Nest photos shall be included with the monitoring reports.

Specific Requirements for Least Bell's Vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Where there is an active nest for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo that could be impacted by project-related noise, as determined by the avian biologist, construction noise that exceeds the existing baseline noise level at the active nest by more than 3 dB hourly average or an hourly average threshold of 60 dB, whichever is higher, shall be avoided during these species' breeding seasons (March 15 through August 31). If avoidance of the noise threshold at the active nest is not possible during the breeding seasons, SDG&E shall work with a qualified acoustician approved by the CPUC, USFWS, and CDFW to develop and implement noise attenuation measures such as hay bales, noise blankets or other noise attenuation devices between the activity and the active nest such that the noise level at the active nest does not exceed baseline noise levels by more than 3 dB hourly average or an hourly average threshold of 60 dB, whichever is higher.

Monitoring and Reporting. All nests with a reduced buffer shall be monitored daily during construction activities by a qualified biologist until the qualified biologist has determined that the young have fledged or until one week after construction ends within the reduced buffer/work area (whichever occurs first).

Nest locations and exclusion buffers shall be mapped (using geographic information systems) for all nests identified. This information shall be maintained in a database and shall be provided to the CPUC, MCB CPEN, CDFW, and USFWS. A monthly written report shall be submitted to the CPUC, MCB CPEN, CDFW, and USFWS for construction within a reduced buffer and shall include (1) information included in buffer reduction requests, (2) work (eggs, young, and adults). No avian reporting shall be required for construction occurring outside of the nesting conducted within the work site, (3) duration of work activities and related buffer reduction, and (4) information on nest success season and if construction activities do not occur within a reduced buffer during any calendar month. A final report shall be submitted to the CPUC, MCB CPEN, CDFW, and USFWS at the end of each nesting season summarizing

all avian-related monitoring results and outcomes for the duration of project construction. Nests located in areas of existing human presence and disturbance, such as in yards of private residences, or within commercial and or industrial properties may not need to be monitored, as determined by the qualified biologist and approved by the CPUC's independent biologist.

Avian Protection on Power Lines. The project shall include collision-reducing techniques for power lines (based on Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (Avian Power Line Interaction Committee 2012).

Applicable Locations: Areas around nesting birds

Performance Standards and Timing:

Before Construction:

Nesting bird surveys are conducted

During Construction:

(1) Nests are avoided to the extend feasible

(2) Nests with reduced buffers and helicopter activities are monitored

(3) Helicopter activity is restricted to reduce impacts on nesting birds

(4) Noise-producing activities near least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo nests are avoided or noise attenuation measures are implemented

(5) Monthly monitoring reports are submitted to the CPUC, CDFW, and USFWS

(6) A final report is submitted to the CPUC, CDFW, and USFWS summarizing monitoring results

After Construction: N/A

MM Biology-7: Coastal California Gnatcatcher Avoidance and Minimization

SDG&E shall implement the following measures to reduce impacts on coastal California gnatcatcher:

1. To the maximum extent practicable, construction shall be timed to avoid the coastal California gnatcatcher breeding season (15 February to 31 August) when suitable gnatcatcher habitat is present within 250 feet (or as directed by the USFWS during Section 7 Consultation) of areas proposed for disturbance or other construction activity.
2. If avoiding the breeding/management season is not practicable, the following additional measures shall be employed:
    a. The avian biologist shall be approved by the CPUC and MCB CPEN at least two weeks prior to construction start.
    b. The avian biologist shall conduct pre-construction surveys for active nests within 250 feet of work locations.
    c. For nests found within the survey area, the qualified biologist shall use the distance to the project limits and a topographical analysis to determine if construction activities are likely to directly damage a nest or significantly disturb nesting activities.
    d. Where damage or disturbance of any gnatcatcher nest(s) is likely, SDG&E shall implement further measures as directed by the avian biologist, CPUC, or MCB CPEN to avoid the likelihood of nest destruction or disturbance, including directing construction to areas further away from the active nest(s), if possible.
    e. Where mutually agreed to by MCB CPEN AC/S, ES, the CPUC, and USFWS, straw bales may be placed along the project perimeter to block visibility and sound from the adjacent construction, thereby reducing potential disturbance to active gnatcatcher nests. Signage shall be installed to deter people from entering any area with an active gnatcatcher nest.
3. The avian biologist will provide an electronic report of nest survey results to the CPUC and MCB CPEN within 7 days of survey completion. The avian biologist will provide bi-weekly (every 2 weeks) biological monitoring reports (electronic versions only), and one final biological monitoring report, to the CPUC, MCB CPEN, CDFW, and the USFWS.

All suitable gnatcatcher habitat that would be temporarily impacted by project activities shall undergo appropriate restoration actions (e.g., recontouring, planting, weeding) upon completion of project activities as described in MM Biology-8. All permanent impacts on suitable gnatcatcher habitat would be offset by restoration of coastal sage scrub at a 2:1 ratio, and as described in MM Biology-9.

4. All suitable gnatcatcher habitat that would be temporarily impacted by project activities shall undergo appropriate restoration actions (e.g., recontouring, planting, weeding) upon completion of project activities as described in MM Biology-8. All permanent impacts on suitable gnatcatcher habitat would be offset by restoration of coastal sage scrub at a 2:1 ratio, and as described in MM Biology-9).

Applicable Locations: Suitable habitat for coastal California gnatcatcher

Performance Standards and Timing:

Before Construction:

(1) Avian biologist is approved by CPUC and MCB CPEN

(2) Pre-construction surveys are conducted

During Construction:

Measures are implemented to avoid unauthorized take of coastal California gnatcatcher

After Construction:

(1) Restoration activities are monitored (see MM Biology-8)

(2) Permanent impacts on gnatcatcher habitat are offset by restoration of coastal sage scrub

MM Biology-8: Restoration for Temporarily Impacted Habitat

SDG&E shall follow the habitat enhancement procedures defined in Section 7.2 of the Subregional NCCP to restore temporarily impacted areas following construction. Restoration of temporarily impacted areas shall involve recontouring the land, replacing the topsoil (if it was collected), planting seed and/or container stock, maintaining (i.e., weeding, replacement planting, supplemental watering, etc.), and monitoring the restored area for a period of five years or until Year 5 success criteria are met. Restoration shall meet the following performance criteria:

- Percent cover and composition shall be similar to the conditions of a nearby reference site, defined as variation of no more than 10 percent absolute cover from the reference site cover and species composition condition.
- Maintenance and monitoring for restoration shall be for 5 years or until success criteria are met. Restoration areas shall be monitored eight times in Year 1, six times per year in Years 2 and 3, and four times per year in Years 4 and above.

Restoration areas shall be monitored for invasive plants following installation of the restoration. Invasive plant monitoring shall occur eight times in Year 1, six times per year in Years 2 and 3, and four times per year in Years 4 and 5. If invasive plants are found during the five-year monitoring period, they shall be removed as necessary to support meeting the cover and species composition success criteria.

If the restoration fails to meet the established success criteria after the maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC.

Maintenance and monitoring shall be conducted to assess progress and identify potential problems with the restoration. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering) shall be taken by an experienced, licensed Habitat Restoration Contractor during the maintenance and monitoring period if necessary to ensure the success of the restoration.

Mitigation Ratios for Southern Sycamore Alder Riparian Woodland Habitat. SDG&E shall mitigate for impacts on southern sycamore alder riparian woodland habitat not suitable for listed species per the requirements established in the Riparian Ecosystem Conservation Plan, which is part of the MCB CPEN

INRMP (See Section 2.5.3 and 2.5.4 of Appendix C of the INRMP). The Riparian Ecosystem Conservation Plan includes equations to calculate the mitigation ratio, depending on multiple factors, including the quality of the habitat that is impacted and the duration of the effect.

Mitigation Ratios for Nonnative Grassland and Diegan Coastal Sage Scrub. Temporary impacts on nonnative grassland and Diegan coastal sage scrub not suitable for listed species shall be mitigated at a 1:1 ratio. Suitable habitat for special-status species shall be mitigated at the ratio defined in the applicable mitigation measure.

Restoration within MCB CPEN Habitat Restoration Areas. Temporarily impacted areas within MCB CPEN habitat restoration and mitigation sites shall be restored to the same specifications that they were restored to by MCB CPEN. SDG&E shall document the pre-construction conditions of each restoration or mitigation site in a pre-construction habitat restoration and mitigation area impact memo submitted to the CPUC and MCB CPEN 30 days prior to impacts within habitat restoration and mitigation sites. The pre-construction habitat restoration and mitigation area impact memo shall include photo documentation and vegetation surveys of all habitat restoration and mitigation areas that will be impacted by the project. SDG&E shall restore habitat restoration and mitigation areas affected by the project to pre-construction habitat conditions including vegetative cover and vegetation community composition. Restoration of habitat restoration and mitigation areas shall be completed to the acceptance of MCB CPEN and the CPUC. Post-construction restoration activities shall be documented by SDG&E in an annual report submitted December 31 of each year to MCB CPEN and the CPUC. Annual monitoring and reporting shall be conducted until the habitat restoration areas are fully restored to pre-construction conditions.

Applicable Locations: Sycamore adder riparian woodland, nonnative grassland, and Diegan coastal sage scrub habitat temporarily impacted by the project

Performance Standards and Timing:

Before Construction:

During Construction:

Habitat areas are restored during the appropriate time of year which may be after construction. BMP's will be implemented.

After Construction:

(1) Restored areas are monitored for five years or until they meet Year 5 success criteria

(2) Compensatory mitigation lands are acquired

MM Biology-9: Compensation for Permanently Impacted Habitat

SDG&E shall choose one of the two following options to compensate for permanent impacts on habitat:

Option 1. SDG&E shall use the mitigation credits from SDG&E's Subregional NCCP to off-set permanently impacted areas. Permanent impacts on nonnative grassland shall be mitigated at a 1:1 ratio, and permanent impacts on Diegan coastal sage scrub shall be mitigated at a 2:1 ratio. To demonstrate that sufficient mitigation credits are available in the NCCP, SDG&E shall provide the CPUC with a letter from CDFW and USFWS stating that enough mitigation credits are available for this project at least 30 days prior to any ground-disturbing activities. SDG&E shall provide the CPUC with a copy of the Annual Report that shows that mitigation credits were used for this project.

Option 2. SDG&E shall purchase/dedicate suitable habitat for preservation to off-set permanently impacted areas. Permanent impacts on nonnative grassland shall be mitigated at a 1:1 ratio and permanent impacts on Diegan coastal sage scrub shall be mitigated at a 2:1 ratio. All off-site mitigation parcels shall be approved by the CPUC, USFWS, CDFW, and MCB CPEN (as applicable) and must be acquired, or their acquisition must be assured. To demonstrate that such parcels will be acquired, SDG&E shall submit a Habitat Acquisition Plan at least 30 days prior to any ground-disturbing activities for CPUC, USFWS, CDFW, and MCB CPEN (as applicable) review and approval. The Habitat Acquisition Plan shall include, but shall not be limited to:

- Legal descriptions and maps of all parcels to be acquired;

- Schedule that includes phasing relative to impacts;
- Documentation demonstrating that the mitigation parcel(s) provides high quality habitat roughly equivalent in composition to the habitats that would be impacted by the project, are not isolated habitat patches, and include appropriate acreages;
- Timing of conservation easement recording;
- Initiation of habitat management activities relative to acquisition; and
- Assurance mechanisms (e.g., performance bonds to assure adequate funding) for any parcels not actually acquired prior to vegetation disturbing activities.

A Habitat Management Plan shall be prepared by a biologist and approved by the CPUC, USFWS, CDFW, and MCB CPEN (as applicable) for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by these agencies (as applicable) within 18 months of the initiation of any vegetation-disturbing activities. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired, off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- Adequate SDG&E funding for the preparation and implementation of the Habitat Management Plan
- Legal descriptions of all mitigation parcels approved by the CPUC, USFWS, CDFW, and MCB CPEN (for mitigation parcels to be acquired for impacts within MCB CPEN)
- Baseline biological data for all mitigation parcels
- Designation of a land management entity approved by the CPUC, USFWS, CDFW, and MCB CPEN (for mitigation parcels to be acquired for impacts within MCB CPEN) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by SDG&E to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)

Management specifications including, but not limited to, regular biological surveys to compare with the baseline data; invasive, non-native species control; fence/sign replacement or repair; public education; trash removal; and annual reports to the CPUC, USFWS, CDFW, and MCB CPEN (for mitigation parcels to be acquired for impacts within MCB CPEN).

Applicable Locations: Nonnative grassland habitat and Diegan coastal sage scrub habitat that are permanently impacted by the project

Performance Standards and Timing:

Before Construction:

Documentation for acquisition, preservation, and management of in-kind habitat is provided to the CPUC, USFWS, and CDFW prior to habitat impacts

During Construction: N/A

After Construction: N/A

MM Biology-10: Burrowing Owl Mitigation and Monitoring

In accordance with the Staff Report on Burrowing Owl Mitigation and CDFW-approved BOMMP, SDG&E shall conduct a pre-construction take avoidance survey for burrowing owl prior to initiating ground-disturbing activities. In areas where owl presence is not found, construction may proceed without further mitigation. If burrowing owl occupancy on site is confirmed during pre-construction take avoidance surveys, SDG&E shall implement the CDFW-approved BOMMP.

Applicable Locations: Suitable habitat for burrowing owl

Performance Standards and Timing:

Before Construction:

(1) A Draft BOMMP is submitted to the CDFW and CPUC for approval

(2) A pre-construction take avoidance survey is conducted

During Construction:

Measures from the approved BOMMP are implemented if burrowing owl are found during the pre-construction survey

After Construction: N/A

MM Biology-11: Mitigation for Pacific Pocket Mouse

The following measures shall be implemented in occupied habitat for Pacific pocket mouse (PPM):

1. A CPUC- and MCB CPEN-approved PPM biologist shall conduct a pre-construction survey for PPM 14 days prior to construction. The PPM biologist's qualifications shall include experience performing at least 40 small mammal trapping sessions (i.e., calendar nights), experience handling at least 40 PPM individuals, experience with small mammal husbandry, and experience performing a translocation of a small mammal species. The pre-construction survey shall cover all PPM occupied habitat within 500 feet of all project work areas and access roads within 120 feet of project work areas and access roads to identify any individuals that are occupying the habitat. Any burrows, utilized habitat, or signs of PPM utilizing a habitat (e.g., track prints) shall be flagged for avoidance during construction activities.
2. The PPM biologist shall monitor all phases of construction in PPM occupied habitat and coordinate closely with CPUC and MCB CPEN Environmental Security (ES), who shall in turn coordinate with the USFWS.
3. The PPM biologist shall submit a detailed PPM trap and release plan to the USFWS for review and approval prior to any surveys in PPM occupied habitat.
4. Contractor education in MM Biology-3 shall cover the potential presence of PPM; the requirements and boundaries of the project; the importance of complying with avoidance, minimization, and compensation measures; and problem reporting and resolution methods.
5. The PPM biologist shall monitor all construction activities in occupied habitat to ensure compliance with mitigation measures and shall keep the project construction manager, CPUC, and MCB CPEN ES informed of construction activities that may threaten PPM.
6. Each morning prior to the commencement of work, the PPM biologist shall check for any new burrows within the work areas. If evidence of any new PPM activity is found, the PPM biologist will work with the construction crew in the field to determine a new work plan for construction activities within the work area that will avoid impacts to PPM (for example, placement of outriggers in areas free of PPM sign, the PPM biologist flagging footpaths from the existing access road to the structure avoiding PPM burrow locations, and working with the crew to determine areas free of PPM sign that can be used by construction).
7. In the unlikely event that a live PPM is discovered within a work area during construction, the PPM biologist will immediately contact the USFWS for consultation and all work in the area shall halt until consultation is completed.
8. The PPM biologist shall provide bi-weekly (every 2 weeks) biological monitoring reports (electronic versions only), and one final biological monitoring report to the CPUC, MCB CPEN Environmental Security, and USFWS. Any "take" of federally-listed or state-listed species will be reported electronically to the CPUC, MCB CPEN ES, CDFW and USFWS within 24 hours of the action. No "take", including handling or capture of state or federally listed species, shall occur without appropriate state or federal "take" authorization.
9. The PPM biologist shall have the ability to halt construction activities, if necessary, to avoid unanticipated impacts on PPM
10. No access road grading shall occur in PPM occupied habitat without prior authorization from USFWS and MCB CPEN..

Applicable Locations: Occupied habitat for PPM

Performance Standards and Timing:

Before Construction:

(1) Pre-construction surveys are conducted

(2) Burrows and signs of utilized habitats are flagged for avoidance

During Construction:

(1) Construction areas within occupied habitat for PPM are monitored daily

(2) Reports are submitted to the CPUC, MCB CPEN, and USFWS

After Construction: N/A

MM Biology-12: Invasive Weed Control

To control the potential spread of weed species that may degrade native plant communities on MCBCP, all equipment and vehicles will be thoroughly power-washed or air compressor-washed before entering MCB CPEN. SDG&E shall also implement the following measures:

- A pre-construction weed inventory shall be conducted by surveying the entire easement and areas immediately adjacent to the project alignment where access permission is obtained, as well as at all ancillary facilities associated with the proposed project for weed populations that are (1) considered by MCB CPEN as being a priority for control (i.e., prohibited plants on the Basewide Master Plant List), or (2) weed populations rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory (online) Database (http://www.cal-ipc.org/ip/inventory/index.php). Weed populations shall be mapped but not targeted for control outside of proposed project impact areas. These populations shall be mapped and described according to density and area covered. Weed populations within the proposed project impact areas shall be treated prior to construction or at a time when treatments would be most effective based on phenology.
- Weed control treatments shall include all legally permitted methods to be used in the following prioritized order: preventative, manual, mechanical, and chemical. All treatments shall be applied with the authorization of MCB CPEN if the treatments occur within MCB CPEN. The application of herbicides shall comply with all state and federal laws and regulations under the prescription of a Pest Control Advisor and implemented by a Licensed Qualified Applicator. Where manual and/or mechanical methods are used, disposal of the plant debris shall be within an approved landfill area. The timing of the weed control treatment shall be determined for each plant species in consultation with MCB CPEN, with the goal of controlling populations before they start producing seeds.
- From the time construction begins until two years after construction is complete, annual surveying for new invasive weed populations and the monitoring of identified and treated populations shall be required in the survey areas described above. Weed populations shall be treated to not exceed baseline conditions.
- During project construction and operation/maintenance, all seeds and straw materials shall be certified weed free, and all gravel and fill material shall also be certified weed free.

Applicable Locations: Treatment of weed populations within project disturbance areas; surveys of weed population within entire easement

Performance Standards and Timing:

Before Construction:(2) Pre-construction weed inventory is conducted

(3) Weed populations are controlled, if deemed appropriate

During Construction:

N/A

After Construction:

(1) Annual survey for invasive weed populations and monitoring of treated populations are required for two years after construction is complete

(2) Weeds are treated

MM Biology-13: Vernal Pool Avoidance and Minimization

SDG&E shall implement the following measures to avoid and minimize impacts on vernal pools and road pools:

- Equipment travel and site access within roads containing potential vernal pools or road pools shall be timed when pools are dry to the extent feasible.
- The boundaries of all vernal pools and road pools located within the immediate vicinity of any project related work or access road shall be staked/flagged by a qualified biologist prior to grading or ground disturbance in the area.
- Mats may be used when pools are wet or moist to reduce impacts on the pool from vehicle travel.
- All staking/flagging shall be removed by the qualified biologist following completion of work.
- A minimum of 150 feet shall be provided between pools and all staging, parking, and storage areas.
- No fueling or repair of project vehicles or equipment shall occur within 150 feet of delineated road pools.

Applicable Locations: Road rut pools on access roads

Performance Standards and Timing:

Before Construction: N/A

During Construction:

(1) Equipment travel through pools is minimized

(2) Pools are flagged prior to ground disturbance in the area

(3) Measures, including the use of mats and buffers for vehicle fueling and repairs, are implemented to reduce impacts on pools

After Construction:

Staking/flagging is removed around pools

MM Biology-14: Access Road Grading Measures

SDG&E shall implement the following measures for access road grading activities that are implemented for the project.

1. The project access road grading areas are limited to the access roads as defined in the project description. Parking, driving, and project staging of equipment and vehicles (i.e., lay down) for access grading are limited to previously compacted and developed areas.
2. Access to the project site shall utilize existing Base roads.
3. All equipment and/or vehicles shall be power-washed before entering Camp Pendleton property and the project site. This is to control the spread of invasive (non-native) weeds. These measures are in support of Marine Corps Order P5090.2A, 11200.7, which requires installations to restrict the introduction of exotic species into natural ecosystems.

SDG&E will conduct access road grading activities in accordance with operational protocols described in Section 7.1 of the Subregional Natural Community Conservation Plan (NCCP) and the Memorandum of Understanding between the USFWS and CDFG (References (e) and (f)) and subsequent US Fish and Wildlife consultations (References (g) and (h)). These operation protocols were developed to avoid Incidental Take or impact to species listed under the Endangered Species Act (ESA) and their habitats.

4. The project is within and adjacent to habitats occupied by federally fisted flora and fauna species.
5. All SDG&E NCCP operational protocols and mitigation measures shall be followed during road maintenance activities, including but not limited to:
   a. Conducting safety and environmental tailgates.
   b. Pre-construction surveys for sensitive biological resources.

c. Monitoring and flagging of migratory and ESA-listed bird nests; occupied California gnatcatcher, and rare plant habitat; riparian areas; vernal pools; drainage features; and natural waterways will be completed by a qualified biological monitor. Monitoring and flagging for active nests that occur within 50 feet on either side of the project area during bird breeding season (15 February - 31 August). Flagging is placed 25 feet on either side of the nest so that the construction and vegetation trimming activities do not impact these species.

d. Plant material from trimming activities will be removed from the site to a permitted disposal location.

6. In the event SDG&E identifies a federally listed plant species within a 10-foot radius around power poles, which is the area required to be cleared for fire protection purposes, SDG&E shall notify the USFWS and MCB CPEN ES Consultation Section, in writing, of the plant's identity and location of the proposed activity, which will result in a Take of such a plant.
7. *Reports.* SDG&E shall provide copies of the information associated with projects on MCB CPEN in their Annual Report to the USFWS including but not limited to the following:
   a. Monitoring. At completion of work, the Environmental Surveyor shall verify compliance, including observing that flagging areas have been avoided; identify previously unidentified dens, burrows, or plants located on any project sites after the pre-activity survey; and recording habitat acreages impacted by the project.
   b. Mitigation. The SDG&E will provide MCB CPEN Consultation Section with the acreage of temporary and permanent habitats impacted by the project. The report will also include the table associated with MCB CPEN project habitat impacts provided to the USFWS in their Annual Report.
   c. Incidental Take. In the event of unavoidable impacts resulting in Take as authorized under USFWS ESA Section 10(a) Permit (References (e) and (f)), SDG&E shall provide MCB CPEN ES Consultation Section a copy of the report submitted to the USFWS.
8. *Fire Prevention.* Wildfires will be prevented by exercising care when driving and by not parking vehicles in grass where catalytic converters can ignite it. In times of high fire hazard, trucks will need to carry water and shovels or fire extinguishers in the field. No smoking or disposal of cigarette butts will take place within vegetated areas.
9. All flagging, BMP's, and small animal protection measures shall be removed upon completion of the project.
10. *Clean Water Act.* No dumping or fill shall be placed in/near any Clean Water Act (CWA) Section 404 Water of the U.S. except as authorized by a permit from the U.S. Army Corps of Engineers (USACE) in support of the CWA (33) U.S.C. §§ 1251 - 1387 section 404, the Soil and Water Conservation Act (16) U.S.C. §§ 2001 - 2009, and MCO P5090.2A, 11201.3. SDG&E shall provide a copy of any applicable permits obtained in relation to this project to MCB CPEN Consultation Section prior to commencing work.

In areas where vernal pools are known to be present, such as in the vicinity of the Wire Mountain, SDG&E provides a GPS unit to the biological monitor that has the known locations of vernal pools loaded into the unit. The biological monitor uses this information to flag in advance of the graders for avoidance of known locations of vernal pools.

- All access road grading and associated equipment and vehicles remain on existing access roads, and all equipment and materials are removed from roadways upon completion of access road grading activities.

Applicable Locations: All areas of access road grading.

Performance Standards and Timing:

Before Construction: N/A

During Construction:

Implement measures during road grading

After Construction: N/A

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